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Lean Service Design in Purchasing Order of Motorcycles: Case Study at Mandiri Utama Finance Branches Tangerang, Indonesia

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Finance non-bank (leasing) is a private company that have services to measure the performance of non-financial behaviour employees, ability employees, and customer satisfaction. This company can be determined with the performance combination in internal and external company over leasing. The internal factors are owned to combined by external factors over owned company. Here, we analyse service of by PT. Mandiri Utama Finance to consumers over credit financing motorcycle or cars property. The consumers of Mandiri Utama Finance joined a dealer to buy the motorcycle or cars. On the other hand, consumers (as a dealer) was nominated for buyers motorcycle or cars. Thus, inside of PT. Mandiri Utama Finance is a surpass competition between company leasing, and purchasing process to order from dealer to PT. Mandiri Utama Finance. The effort to increased quality from services of customer satisfaction, the companies need to measuring the degree of quality per-years. One of them are applied over methods and lean service. The Lean service at this research are applied to asses concept and method lean six sigma over PT. Mandiri Utama Finance with methodology namely DMAIC (Define, Measure, Analyse, Improve and Control)

Keywords: Lean Service, Lean Six Sigma, DMAIC.

1. INTRODUCTION

In globalization era the quality and efficiency of process and product or services have competition in the industrialized worlds. The quality product and service are influenced by consumer factors in the globalization era. The quality of product and service is a key to carries of business, growth and an increased in the position. Here, head of company need strategy to maintain stability of the product and service. Thus, the variations of product can be controlled with process and improved the quality product or customer satisfaction. The non-bank financing (leasing) is a private company in services background to increased customer satisfaction.

The performance companies like leasing should be measured over non-financial behavior employees with the ability employees and customer satisfaction. The company performance can be determined with the combination of internal and external company factors. Here, internal factors owned companies should be combined by an external factor to owned company. In this study, PT. Mandiri Utama Finance is one of companies leasing which is one of the Mandiri Bank group, Tbk. Mandiri Utama Finance is a subsidiary PT. Bank Mandiri (Persero) Tbk that operate in financing sector to serve the Indonesia who want to have a motor vehicle by credit [1]. Multi finance standing officially on the twenty-first of January 2015, PT. Mandiri Utama and has been listed and supervised by regulator financial services authority. Here,

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PT Mandiri Utama Finance have a target become to largest financing in 2021 over multi finance also includes large company group due to have assets at a trillion rupiah and financed by Bank Indonesia. In segments fund, the automotive are oriented as a multi finance business on the volume and supported by automation integrated system of the and headquarters. Many researchers study the performance bank using google trends to analyze performance bank. There are many applications google trends was used to analyze potential energy [2] and Bank profit [3]. However, this method cannot valid due to 2nd data observation (keyword google).

Based on hypothesis, the service process is against the dealer. In this study, we use in-situ observation based on interview over motorcycle or car dealer involved purchase order process and internal process. Here, the finance accuracy is depending by internal process. Thus, we use correlation speed service and another parameter to analyze business prospect in internal process over motorcycle and car with a new for unfolding process.

2. METHODOLOGY

2.1 Principle of Purchasing

The principle of purchasing is become to advocate by who referred the purchase principles. The primary function of purchasing, needs to use as a guidelines or reference [4, 5]. The procedure of purchasing process is understanding the person who needs party and requires goods and these services. The next process is selection of suppliers or main supplier with two basic of aspects such as supplier potentials and list of all suppliers. The 3rd step normally referred to Purchase Order (PO). After pick up reserving and distributors, money needed to distribute over procedure of purchasing to carried out of monitoring development. The orders areas are proposed to receive referred to follow-up in industries. The acceptance part of receives goods or supplier is matching the amount by a document purchase order. The purchasing part will be informed to panel. After that, the price of goods ordered was received by good conditions and satisfying as requested by customer. The invoice will be checked before accepted by the bank based on costumer request. The payment was done in accordance with the agreement which is the document already issued.

2.2 Data and Location

In order to analyze principle of purchasing, the quantitative method is proposed in this study. Here, we interviewed staff and manager over PT. Mandiri Utama Finance. After that we compared two argument with Define, Measure, Analyse, Improve and Control (DMAIC) over operational definition.

Here, defines stand for stage of determining with size factor to success with process in applying the project. The measurement of success is selected based on average time with the settlement of problem documents on monthly basis also to be a manual check-list documents

examination. The boundaries is used to obtain huge supplier, input student performance, and output and customer) based on interview guidelines and guidance for observation [6, 7].

Measure is buying stages determines of focus problem with understand the map over current proceedings (process map) based on interview guidelines, guidelines for observation, guidelines documents and other tools [8, 9]. By using the measure tools lean in this study, researchers can be mapping to measure the performance and total consumer time and total providers time. Besides total time, researchers can be assessing the total value creating time and total waste time on both the consumer and sides providers [10, 11]. Case study in dealer motor over Tangerang, Indonesia.

Furthermore, analyze is stage validation and determine of problems explicitly impact focus on interview guidelines problems, guidelines for observation, and guidelines documents [12, 13]. Here, researchers can be analyze using Failure Modes and Effect Analysis (FMEA) to get problems value in Risk Priority Number (RPN) at risk of crimes against focus problems [14, 15].

The next step is improved means determine of his or her area in the proposed area with fixes every problem with developing their activities in finance as a major repair to potential and derived from journal, book reference, interview guidelines and observation guidance. The Potentials improvement of performed validation is potential due to score zone assessment [16]. Here, score zone one, zone two and zone three will be repaired over proposal and validated to process simulation improvement. The process of simulation is used in 25 sample data and repair the proposal. The effective identify and time improvement in process with Tools Lean Consumption Map (LCM) is added to assess staff and manager supervisor activity [17].

Also Control the stage to determine measure controlled by results of stage improved so that the positive influence when improved the continuous awake and consistent carried out by workers in staff agency [18]. The results of stage control are changed management plan and contains standard operating procedure, training for an employee, determine the key parameters, determine the process of indicator or control indicators, out of control action plan, and checklist or audit.

3. RESULT AND DISCUSSION

There are three parameter average value that used to performance while the repair generally uses the improvement of differences around 70% gap project. The calculation of the target measure of the success of the process of purchasing order. Figure 1 shows time series from period of completion profile that have random trend. However, the data observation can be used to determine size of target during business refinement or improvement project over PT. Mandiri Utama Finance, Tangerang, West Java, Indonesia.

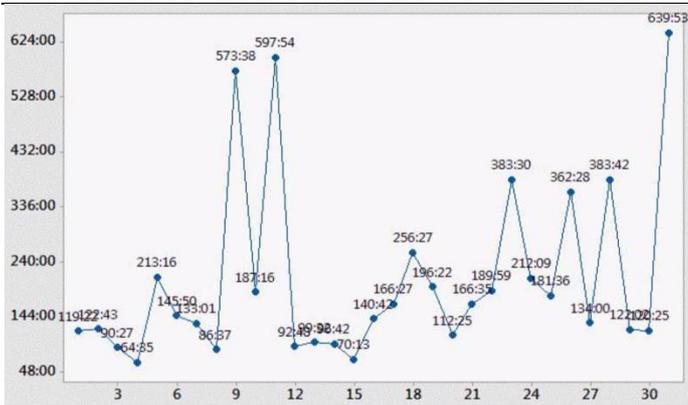


Figure 1. Time Series Plot during Survey observation Purchase Order in February 2018 over PT. Mandiri Utama Finance

As can be seen in Figure 1, the Y axis stand for index while X axis stand for time assessment. Furthermore, The next step to determine a diagram SIPOC does not clear due to the division cannot investigate official staff involved survey program and tools. In this study, we obtain good understanding of project to be undertaken at the time after service purchasing order. Here, they give an opinion a like and made it clear to the whole team relating implemented project. The team understand and current the goals to intended also anyone who will be involved in the project. So exactly if the tools timer series the plot and SIPOC are referred to define lean project service. Due to method lean service is a new method, the beginning training have the project of methods from lean service into all employees. So that, the positive impact successful project can be handled by training internal and external. Table I shows the lean analysis of consumption during assessment over PT. Mandiri Utama Finance, Tangerang.

Table I. Lean analysis of consumption during assessment over PT. Mandiri Utama Finance, Tangerang

		Customer (Consumption Time)	Provider (Provision Time)
Total Time	(a)	1605	1605
Value Added	(b)	126	238
Non value Added	(c)	1479	1367
% VA	$= (b) / (a) * 100\%$	7,9%	14,8%
% NVA	$= (c) / (a) * 100\%$	92,1%	85,2%

Through the information from observation over Table 1, the interview result reflected that the bank has assets after composing an order from of the buyer activities. The researcher’s group from counting division are added assessment to see contribution of total classified the entire time over observation data. After the formula obtained, the amount of time of consumer who could be classified is divided by the number in entire time essentially and perfectly for morally good value. Here, the side of provider has been gone due to the formula is same. Thus, in calculation result, the case was calculated with value assessment consumer is 7.9 % and provider has been dropped to 14.8 %. If the comparison is made by size of

organization, the lean service with value is increased to 30 % with difficulties for repair. Afterward to improve the raise situation, the assessment value will be added with initial conditions by bank sound assets.

Furthermore, FMEA is a systematic technique to analyze failure rate. This technique is developed to asses experienced based function. Here, we use interview model based on desk research conducted by one person who have capabilities to explain technical aspect inside the company. The FMEA assessment have four steps to obtain the result assessment e.g. FMEA for failure rate, effect failure rate, Risk Priority Number (RPN), risk management for future. Figure 2 shows the comparison LCM before and after lean service over VAA.

LCM Before Lean Value Added Assessment			
		Customer (Consumption Time)	Provider (Provision Time)
Total Time	(a)	1605	1605
Value Added	(b)	126	238
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% VA	$= (b) / (a) * 100\%$	7,9%	14,8%
% NVA	$= (c) / (a) * 100\%$	92,1%	85,2%

LCM After Lean Value Added Assessment			
		Customer (Consumption Time)	Provider (Provision Time)
Total Time	(a)	325	205
Value Added	(b)	140	128
Non value Added	(c)	185	77
% VA	$= (b) / (a) * 100\%$	43,1%	62,4%
% NVA	$= (c) / (a) * 100\%$	56,9%	37,6%

Figure 2. Comparison LCM before and after lean service over VAA at PT. Mandiri Utama Finance

As we can see in the Figure 5, the total repair time with 1280 minutes or equivalent to 79.8% is proportion to added value time which previously with 7.9 % increased to 43,1 % or equivalent with a rise in 35 %. While a non-value-added time originally 92,1 % drop to 56,9 % or equivalent to 35 %. From providers have total repair time with 1400 minutes or equivalent to 87,2 %. Also, the proportion time previously 14,8 % increased to 62.4 % or equivalent with a rise in 47 % while non-value-added time 85.2 % drop to 37.6 % or equivalent to the decline in 48%. This positive result that all of the proposed fixes an impact that very large to improvement time from the customer and from the providers

The Managerial implication have a result of application over system managerial to increase productivity by raising capacity, quality, efficiency, and effectiveness of available resources. In this study, approach lean for service with any instrument and support are applied in the marketing from PT. Mandiri Utama Finance, Tangerang. The managerial system is observed to measure level of success to detected a problem. After that researchers start analyzes and give treatment to

increase productivity of services. The last stage is control of the application of treatment in the system change managerial. Capacity is raised based on presence of supplier team. Here, supplier team are covering provides input or insert on the process. In service purchasing order, can be explained that providers input one of them are a sales in the dealer being give order data the prospective debtors to providers which in this case is cmo PT. Mandiri Utama Finance, Tangerang. In this study, researchers limit to increase the quantity of Quantity cmo affected productivity. A lack of cmo will have an impact on the slow the service because the prospective debtors have to waited in line to survey service and used leasing. When the process survey slow, the process next be stunted. Hence one improvement managerial executed is increase the number of cmo properly. Increase in quantity cmo team would also give an impact on fixed costs monthly company grows. So the need of measured consideration in determining the number of cmo and structured .

Capacity that both the availability of mold list of recent prices in the form of paper. In this study, we found the fact that there are the number of the list price of a limited and were often not update. Although the digital era have facilitate access information, so that the list price of a can directly accessed through data virtual, the list price of a in the form of sheet of paper is still needed. A middle dealer in the city e.g. Karawaci, Cikokol, Cipondoh, Ciledug takes more a little the list price of a in the form of paper than a dealer in the suburbs as in the Kutabumi, and Legok. It can be seen trivial, is good effect to ease information from sales a dealer to the prospective debtors. This can affect the decision to the companies leasing which me offered sales to the prospective debtors. Can be concluded that mold pricelist needs to be improved especially on a dealer in the suburbs.

The capacity of the third non-physical capacity is very important to the smooth process of purchasing order. A major self-contained finance is related to the service server digital by the information technology in the company. Control must be conducted at regular intervals to avoid data overload to subject of an observation by author over PT. Mandiri Utama Finance, Tangerang has been done and cooperative during interview section.

The fourth capacity namely the quality of human resources, in control of this research is human resources from PT. Mandiri Utama Finance, Tangerang namely, cmo, credit analyst and administrator. The quality of recruitment of resources through by Human Resource Development (HRD). In the process of purchasing order, the quality of cmo is very important to bring a positive impression from the customers PT. Mandiri Utama Finance, Tangerang. In interview result from dealer, there are several complaints in connection with the quality of the although not much disturbing activity purchasing

order. In quality soft skill, cmo to say polite when called consumers from the dealer or the prospective debtors. The quality of human resources that both the credit analyst is good with administrator input data bank.

The capacity of being the fifth PT. Mandiri Utama Finance, Tangerang promised to supply physical qualities related to the data were drawn. At the time of still have applied a system over the withdrawal of funds data manually, physical qualities the data such as photocopy of the data the prospective debtors to be considered to be carried out efficiently. After implementing a system of mobile this application is reasonable enough, physical qualities as the collection of a photograph that is keen and better they have to aside for the sake of the smooth process of purchasing to the order. Cmo in charge of data over the withdrawal of funds and give it to the credit analyst. Over the withdrawal of funds documents physical qualities are things that are bad could potentially create disincentives between the smooth process. The quality of nonphysical like qualities for server farms and condition of the road of a surveyor as a form of punishment main things have to be staying well under control to be carried out efficiently. The application of mobile application is very helpful in cmo in handing over the physical qualities of the data that better.

4. CONCLUSION

The application of a method of lean service with the methods DMAIC and LCM managed to give increased performance in the service purchase order with the result significant. The characteristics and models the same organization, lean service this could also applied more broadly in the, institution or other agency with follow the footsteps of the application of the same. The use of a method of DMAIC in the implementation of the lean service very help scientists in preparing steps problems identification, the measurement of troubled points, analysis problems, select repair proposal and an attempt to maintain repair proposal stay awake and consistent. Thus, ascertained that all stages in in an effort to repair processes services wont passes when carefully implement steps in DMAIC.

Lean the fastest growing country in a binder capable of describing the whole time and non-value-added value-added time (waste from the customer are provider well. Lcm able to display information the flow of value for the administrative process of or public services. Information flow displayed as a stream of the value of the process run a cover story in main from two sides i.e. consumer and sides of provider side. Who was featured in data box in lean the fastest growing country in a binder only displays the time and non-value-added value added which makes it easy for value added assessment researchers to count. Compared with the use of value of a stream a binder had commonly used on a method of lean service before, so there are many elements as data at box, source flow, and

inventory will not can be used to describe the flow of a value on the process of services.

FMEA were far superior in should be accorded priority for the improvement of if it is compared to fishbone a diagram on the great commission to analysis generally used on a method of lean formerly which are presented in minority report. To give support to the implementation of the program lean service considered necessary to for a permit to issue a rule of law that can be serve as a platform the application of lean service in Indonesia.

It is recommended that the suggestions improvement that is a solution ideal of a whole analysis which was already carried out with FMEA to continue to reality there. However, in its implementation must be adjusted to the ability of the organization, innovations and efforts who shows volition organization in improve services to taxpayers will add trust taxpayer in pay their obligations as a good citizen. So that image of PT. Mandiri Utama Finance, Tangerang will be getting better in the future.

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