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The Implementation of Lean Lean Sigma (LSS) on Canvassing Registration Process of Business Agencies Over Indonesian National Health Insurance (*BPJS Kesehatan*) South Jakarta Branch

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The method of Lean Lean Sigma (LSS) today is not only used in manufacturing industries however it is continuing to keep developing in various sectors such as countries who use it in the governmental sector. Here, Indonesian National Health Insurance (*BPJS Kesehatan*) as Public Legal Entity which organizes the Health Insurance continued to make efforts to improve the coverage towards the achievement of universal membership or Universal Health Coverage (UHC) which should have been reached on January 1st, 2019, the achievement of participation in the Business Wage Recipient Participant segment is not in line with the target. Thus, the participant registration process is carried out using the Canvassing method where officers make visits from one business entity to another in accordance with the results of observations and pre-research interviews the process has weaknesses in this case there is a waste in the process, among others transportation, waiting, Over Processing and Defect, improvement that will be done is with Lean Sigma method by defining, measuring, analysing, increasing, and controlling DMAIC (Define, Measure, Analyse, Improve, Control) and the LCM (Lean Consumption Map) method. In this research, we use qualitative research method and interviews with internal and external correspondence, and the purpose of this study is to improve the Canvassing process and we found that this process is able to improve the Canvassing process.

Keywords: DMAIC, Lean Consumption Map.

1. INTRODUCTION

Indonesian National Health Insurance (*BPJS Kesehatan*) is a public legal entity that reports directly to the president which began operating on January 1, 2014 in accordance with the mandate of Law number 24 of 2011 article 60 paragraph 1. Universal Health Coverage (UHC), in accordance with Presidential Regulation Number 82 Year 2018 must be achieved no later than January 1, 2019, all residents and foreign nationals working in Indonesia for a minimum of 6 months must be a Participant in the National Health Insurance of Healthy Indonesian Card (JKN-KIS). In accordance with the Road Map of Health Insurance for Employers of State-Owned Enterprises, Medium Enterprises, Small-scale Enterprises no later than January 1, 2015 and Micro-business Providers no later than January 1, 2016 must be JKN participants, but - as of November 2019 national membership achievements have not been achieved. *BPJS Kesehatan* Participation Data as of 30 November 2019 amounts to 222,815,475 people or around 83.63% of the total population of Indonesia have become JKN participants thus the remaining 16.37% of Indonesia's population is not yet protected by health, while for achievements in *BPJS Kesehatan* in South Jakarta for participants in the segment of Wage Recipients Business entities in 2018 are 1,766,118 or 94% of the target and until November 2019 the achievements have only reached 94% of the target and there are still 142,866 participants who must be recruited. Based on the South Jakarta Branch Office's report, the achievement data for the target that has been set during the January 2019-November 2019 period of monthly membership achievement has not been achieved. The participation achievement has not been achieved because

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the participant recruitment process through the Canvassing process has not been optimal, while the Key Performance Indicator (KPI) of the recruitment process is 3 days while based on the January 2019-November 2019 period achievement data is 10 days. These lack of achievement targets can be seen from the data from business entity visits data obtained from the visit results obtained 54% of business entities that are not willing to register their business entities to be participants of the National Health Insurance (JKN), 29% business entities are willing to register and 17% addresses or Person In Charge (PIC) of the business entity are not successful, based on these conditions pre-research observations were conducted and pre-research interviews identified problems that occurred in the registration process of business entities at the South Jakarta Branch Office. From the results of observations and interviews obtained ineffective planning and visits including waste that occurs in transportation where based on observation there is still a visit with the selection of ineffective travel routes that should be able to meet 5 business entities but can only meet 1 business entity, waiting for the process requires approval from the company leadership and waits for the Business Entity PIC during a visit, Over Processing where the officer is obliged to visit twice if HRD is not found and the number of registration files that must be attached defects of *BPJS Kesehatan* Officers do not make an appointment by telephone before making a visit and do not ensure that the address is appropriate thus 17% of the total visits of Person In Charge (PIC) and the company's address is not found, and the level of understanding of the products offered is low based on the results of an understanding test conducted by the average staff score of 62.90 in May, 72.90 in July and 77.90 in August which should have a minimum standard of understanding as much as 80, KIT Canvassing has not been standardized and business entity inspection for indications of non-compliance in registering takes a long time namely it takes 3 days for field inspection activities. Based on the information above, the results of participation are not in accordance with the target, non-value added activities and variations in the process are still found thus an improvement is needed because Improvement is a necessity in all lines of organization, such as in the field of human resources, financial services organizations, health service and other public sector organizations. The development of effective quality improvement or Continuous Improvement Strategies is a key factor for the long-term success of modern organizations, over the past decade Lean Lean Sigma (LSS) has become one of the most popular and proven business process improvement methods that organizations have witnessed in the past [1]. Lean Lean Sigma with VSM method can eliminate waste, increase output in the manufacturing industry [2] and Lean Lean Sigma can improve service to the community, the above journals use the Value Stream Mapping (VSM) method thus in this study the researcher used the Lean Consumption Mapping (LCM) method which is currently not widely used in showing improvements in Current State and Future State [3]. Based on these considerations, the researcher conducted research on the application of the Lean Lean Sigma concept whose aim is to be able to improve the time efficiency of the registration process of business agencies in the public service sector in Indonesia (*BPJS Kesehatan*) South Jakarta Branch using methods such as Lean Consumption Mapping (LCM) and DMAIC

2. METHODOLOGY

This research uses qualitative research method with data obtained based on observations, results of interviews, results of photographs in the field, analysis of documents and notes or reports with the type of qualitative research is inductive, while this research begins by plunging into the field, studying the process or discovery in the field, taking notes, analyzing, interpreting and reporting and drawing [4, 5]. Here, data observation was collected in a number of ways, both data derived from data stored in the archives, observations and measurement processes during Canvassing and interviews with *BPJS Kesehatan* South Jakarta employees. This research requires a large commitment and collaboration as well as full interaction with *BPJS Kesehatan* South Jakarta Officers, the backoffice and all employees who work within the scope of the analyzed process, as well as the support of the Branch Manager in charge.

A. Measurement

This research was conducted using the measurement method of DMAIC (Define, Measure, Analyze, Improve, Control). This method was combined with the Lean concept which aims to eliminate waste. The initial phase is the define phase which is the stage to determine the success of the implementation process and the limits that will be used in this project. The measure of success chosen is the average time of completion of service in each month based on the Checklist of documents and records using SIPOC (Supplier, Input, Process, Output, customer) and Time Series Plot tools. Measure is the stage to determine the focus of the problem by understanding the current process map (Current Process Map) based on Interview Guidelines, Observation Guidelines, Document Guidelines and other Tools. By using Lean Consumption Map (LCM), process map, cross function flowchart and VAA (value added assessment) the researcher will do the mapping therefore the total consumer time performance and total provider time (total service provider time) can be measured). Besides total time, the researcher measured the total value-added time and total non-value-added time both from the consumer and provider side. Consumers in this case were internal employees of BPJS Kesehatan South Jakarta namely the User / planner and the provider is the participant expansion team [6, 7]. After the define and measure phase, the Analyze phase is a validation stage and determines the root causes that directly impact the focus of the problem based on the Interview Guidelines,

Observation Guidelines, Document Guidelines and other Tools. At the Analyze stage the researcher used the FMEA (Failure Mode and Effect Analysis) tool to get the root of the problems with RPN (Risk Priority Number) value at great risk of the focus of the problem [8, 9]. Improve is the stage of determining the proposed improvement for each root cause by developing potential improvements that may come from published research, Lean reference books, Interview Guidelines and Observation Guidelines. The potential improvements are then validated using the IEM (Impact and Effort Matrix) tool. Potential improvements that get a Zone I, Zone II and Zone III score will be a proposed improvement that will be validated in the improvement simulation process [10, 11]. The simulation process will use 30 sample data that will be a reference that the proposed improvement is effective or not, and at the same time see the effect of improving the time in each process with tools such as Lean Consumption Map (LCM). Value Added Assessment will be used to compare value added activity against waste. Then, there is the stage of Control which is a stage to determine the control measures of the results of the Improve stage thus the positive influence when at the Improve stage is continuously maintained and consistently carried out by the participant expansion team. The results of the Control phase are in the form of a Change Management Plan document in which there are changes to the SOP (Standard Operational Procedure), training employees, determining key parameters, determining process indicators or control indicators, OCAP (Out of Control Action Plan), Checklist or Audit.

3. RESULTS AND DISCUSSION

At this define stage, the researcher used two tools, the Time Series Plot and SIPOC. In accordance with the background of the problems in the introduction, the cumulative data on the completion of business registration for the period of January to November 2019 is 10 days, whereas based on the provisions or Key Performance Indicator (KPI) is 3 days, under these conditions an improvement is needed, one of the methods in the stage of define is Time Series Plot used as a tool to determine the target size of success as long as the data trends used are random. If it turns out the data trend is increasing, decreasing, high-low pattern, seasonal, outlier (outside pattern) or shifting then it needs to be checked again whether there are special patterns of the data taken, herewith is conveyed by Time Series Plot of the business entity registration process There are three parameters used, namely the average value, the best performance value and the percentage of improvement which generally uses a repair value of 70% of the gap that occurs in a single repair project. Based on the results Lean Consumption Mapping, it can be seen that in terms of service users the total time needed to complete the process is 2,590 minutes with a total value added of 655 minutes or 25.29% while the total non-value added is 1,935 minutes or 74.71%. While in terms of service providers the total time needed to complete the process is 4,520 minutes with a total value added of 1,235 minutes or 27.32% while the total non-value added is 3,285 minutes or 72.68%. In addition to the fact high non-value added activities were found, it was also found that there were a lot of approval activities, data entry requirements, effective communication with business entities thus the following time wastage was conveyed and consumer with the figures given in the LCM, in-depth observations and interviews were needed to be able to then provide information for the time spent by each consumer and provider side so that they can be classified as Value Added or Non Value Added. After looking at the results of Value Added Assesment Before Lean Consumption where it was still higher level of Non Value Added activity the next step was to analyze the root of the problem using FMEA which is a tool used to solve these problems, FMEA aims to find the root problems of a work process. In addition, FMEA can also be used to predict a process failure so that improvements can be made. Based on FMEA analysis, then conducted 6 proposed corrective actions to reduce the value of RPN (Risk Priority Number) based on a Flow Chart, Process Map, Cross Functional Flowchart and LCM. Based on the Simulation After Lean Consumption it can be seen significant changes related to the reminder of Value Added both in terms of customers and providers, the Value Added Assessment data after Lean Government obtained estimation data that if all proposed corrective actions are implemented there will be a significant increase in Value Added Time and if seen in detail the results exceed the value of 30% which is the minimum limit of an organization can be said to be a Lean organization. Thus, it is very important to implement all proposed remedial actions to ensure that the objectives of the Lean Service at *BPJS Kesehatan* South Jakarta Branch can be realized. Based on the simulation results after Lean Consumption with the results obtained is that there is a total time required to reduce both in terms of service users namely from 2,590 minutes to 1,630 minutes or 37% improvement or from the service provider side from 4,425 minutes to 1,895 minutes or 50%. This improved process can already be called Lean classy, following the VAA Simulation After Lean Consumption

4. CONCLUSION

On the basis of the results of research and analysis of the problems examined in the business entity registration process at BPJS Kesehatan South Jakarta, it can be concluded that the concept of Lean Service can be applied to the business entity registration process at BPJS Kesehatan South Jakarta Branch by using the Define Measure Analyze Improve and Control method (DMAIC), The application of the Lean Service concept can increase the speed of the business entity registration process before the implementation of the Lean Service, the average completion time is 10 days, but after the implementation of the Lean Service the average settlement is 3 days and

increasing the value added from the customer side from 25. 29% to 47.55%, the value added from the provider side from 27.32% to 50.40% and totally reducing the customer time from 2,950 minutes to 1,630 minutes, for providers from 4,250 minutes to 1,895 minutes. The concept of Lean Service in the registration process of business entities in *BPJS Kesehatan* can also be applied to other public service processes with the same process and organizational characteristics in order to improve excellent public services to the community, so as to realize excellent service to the community and increase the value of an organization.

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