

BUSINESS PROCESS IMPROVEMENT USING QUALITY FUNCTION DEPLOYMENT

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ABSTRACT

Business process is a measurable and structured activities to produce a specific output for a particular customer circles. PT.XYZ is one of the pharmaceutical companies that produce pharmacies that require business process improvement so that all existing business activities can be run in accordance with the vision and mission of the company. In conducting business process improvement needs to be made a strategy mapping which refers to four different perspectives: financial, internal business process, customer, and learning and growth by translating the vision and mission of the company and define a link between the existing strategic objectives. Moreover, to make all can be run smoothly, company's existing operations need to be made an operational mapping and work processes mapping using I-MT diagram. With all kinds of mapping especially on the part of the company's operations, it will be found all kinds of weaknesses that exist which will then be repaired so that the company can produce better output than before.

Keywords: Strategy Mapping, Operational mapping, I-MT Diagram.

1. INTRODUCTION

PT. XYZ is one of the many pharmacy companies in Indonesia. The products are supplied in the form of tablets, with different types of pharmacy products according to the function. Business that done by the company PT. XYZ is producing pharmacy that can be consumed by the consumer where to have benefits in terms of health. So the output produced by PT. XYZ and utilized by consumers is a pharmacy. To increase profits for the company, all products that manufactured should be consumed by people and provide health benefits to the people. To make all of it is achieved then all kinds of production process must be done well and precise. Moreover, the all current pharmacy products manufactured by PT. XYZ should refer to the GMP (Good Manufacturing Practice). So all kinds of operations that are needed will be referring to the GMP. In running a business a company must not be separated from all sorts of operations of the company, but there are several problems, namely: lack of focus of employees on the company's operations which resulted in a lot of negligence. This could hamper the company in achieving its

vision and mission as well as the smoothness of the business undertaken. Based on these flaws made a research to resolve the problem so that the employees and the company can focus on the operations of the company. This study focused on doing business process improvement's company, so that all operations can be carried out in accordance with existing standards. The objective is align with the vision, mission, and strategy of the company, and also fulfill the requirement of GMP set by the FDA (Food and Pharmacy Administration). Because a number of the company's operations should continuous with the vision and mission and strategy of the company, it is necessary to translate the vision and mission of the company into four kinds of perspectives in the balanced scorecard. And it should also mapping strategy with reference to the 4 kinds of perspectives included in the balanced scorecard. Company's problems can not be separated from the business process that is undertaken as well as worker negligence, errors of selection and retrieval of raw materials, and customer complaints, then it also needs to be made a mapping of existing operational processes of the

company and identify all sorts of activities that occur in detail ranging from processes and sub-processes that exist in the company.

2. THEORETICAL BACKGROUND

There are many definitions of business process or business process management in the literature, which more or less are similar. Davenport (1993) said that business process as a specific ordering of work activities across time and place, with a beginning, and end, and clearly identified inputs and outputs. They have internal or external customers and they cross organizational boundaries and they jointly realize a business goal. Weske (2007) formulated business process management includes concepts, methods, and techniques to support the design, administration, configuration, enactment, and analysis of business process. Association of Business Process Management Professionals (ABPMP, 2009) defined BPM more comprehensively as a disciplined approach to identify, design, execute, document, measure, monitor, and control both automated and non-automated business process to achieve consistent, targeted results aligned with an organization's strategic goals. BPM involves the deliberate, collaborative and increasingly technology-aided definition, improvement, innovation, and management of end-to-end business process that drive business results, create value, and enable an organization to meet its business objectives with more agility (Mathiesen, 2013). BPM enables an enterprise to align its business process to its business strategy, leading to effective overall company performance through improvements of specific work activities either within a specific department, across the enterprise, or between organizations (Tian, 2008). From that definitions we can draw a conclusion that BPM approach will be able to be used to manage and improve the company, using the integration of quality function deployment. Quality function deployment is a systematic process to integrate customer requirements into every aspect of the design and delivery of the products and services (Ridzki, 2012). QFD

has been used to enhance a wide range of services aspects in healthcare, chemical, as well as in business process improvement (Pramudito, 2008).

3. RESEARCH METHOD

Before doing the research, preparatory phase is necessary to do, so that the research can be worked well in accordance with the directions. After having clear research questions, the following phase was literature study and then started to collected data. Data collection for the study included the company's vision, namely:

- Being a pharmaceutical company that provides medicines with good quality and appropriate pharmacy standards in order to compete in the market.
- Being a company that can provide all kinds of pharmacies with superior value and sustainable in the long term. And mission of the company is composed of
- Trying to provide pharmacies with superior quality, good, safe, and appropriate standards to be used by consumers and is also responsible for all kinds of products to the users of the pharmacy products of PT. XYZ.
- Committed to establish the quality at every stage, from product design, through the selection and purchase of materials and quality control of pharmacy manufacture and storage and distribution.
- Always meet the rules of how to manufacture the pharmacy dynamically and will always provide training to employees to be able to work with high discipline in accordance with its written procedures that have been approved.

Data were also taken in the form of a general overview of the company, organization management, work process or business enterprise, and strategies of companies. And for the improvement of business processes that using a tool or method of quality function deployment (QFD) is taken by interviewing the company's person who is familiar with the ins and outs of the company and the needs that are the most needed by the company, it is the head of company. For data processing begins from the translation of vision and

mission of the company into four different perspectives in the balanced scorecard and then forwarded to the mapping strategy refers to four kinds of perspective in balanced scorecard. Then the operation mapping is made to see what business processes are performed by the company with two kinds of mapping those are operation mapping based on the value chain to see the processes that are generally carried out by the company by identifying the main and supporting processes; and process flow diagram that describes the processes in detail from the general processes described in the mapping process-based value chain.

4. RESULT AND DISCUSSION

Diagram I-MT is used to see the causal relationship between existing processes with sub-processes in achieving the objectives of each process. The improvement of business processes is by applying the QFD method to help the company to improve its business without having difficulty in determining where the methodology used to do to meet the needs of the company (see Table 1).

For knowing the data processing that apply QFD method business process improvement we can see in Table 2 : Priority of technical response. The first priority was production system follows the rules, by 15,20 percent. Secondly, an efficient and effective marketing research with 14,36 percent. An accurate business process modeling and mapping and the task for each department is transparent and clear share the same position in the third by 11,08 percent. The least priority is "filling system is transparent" with 6,38 percent.

The first analysis is a comparative analysis between the vision and mission of the company with the corporate strategy. Strategies that exist in the company can be decoded using 4 kinds of perspectives that exist in the balanced scorecard and each of strategy has the strategic objectives. The value chain-based process mapping showed the presence of major process comprising 6 processes and supporting processes which consists of 5 processes in which shows process in general that occur within the

company. Process diagram flow depicting a detailed explanation of the processes that have been described in general in mapping business processes based value chain. Diagram I-MT is a diagram that applies fishbone diagram to determine the causal relationships that occur in the company's business processes. It shows the six kinds of causes of the smoothness of the company's business processes. And these causes are six main types of processes. QFD method is to make improvements by determining the repair and improvement methodology which must be done first. And it can be seen that each of the QFD method proposed in the QFD relationship and influence on the company's needs.

5. CONCLUSION

From the research report can be concluded that by mapping strategy refers to the four different perspectives will allow companies to conduct their business activities by looking at a number of other things related to business processes. And operation mapping that made using two types of mapping, namely, the value chain-based mapping and process flow charts and diagrams I-MT will facilitate the company in knowing the input and output of a process or activity and all sorts of problems and the lack of enterprise business processes. And improvement of business processes using QFD helps companies to run the repair and improvement, in neat and structurally.

Some suggestions that can be given to the company, they are:

1. In making and improving a marketing research that is needed by the company, the company can use the tool of QFD (Quality Function Deployment) to design a quality design that will be used as a methodology to meet the needs of consumers so that the company can produce a better profit. QFD tool is highly recommended because the results are very comprehensive.
2. Mapping of the operations made by the researchers could be used as a basis for the making of Standard Operation Procedure (SOP). So it is advisable to remain operational use mapping for various needs.

6. REFERENCES

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Table 1: QFD Processing Data

Requirements	Techical Responses										
	Relative Importance	An accurate business process modeling and mapping	An efficient and effective marketing research	Modern, easy, and fast information system	Filing system is transparent	The task for each department is transparent and clear	Production system follows the rules	Cross-function between departments / sections	Recruiting a reliable trainer	Examination of the raw materials warehouse and product carefully	Providing clarity of production time and number of products to the customer regularly every booking
Satisfy consumers	5	1	9	3			3			3	9
Optimizing labor	4	3		3		9	1	3	3		
Cost minimization to deliver maximum results	4		3	1			3			1	1
Payment system for products is easy and flexible	4	1		3	1						3
The booking system for products and raw materials is easy and flexible	4			3	3						3
Produce quality pharmacys	5	3	9				9			1	
Produce valuable and superior medicinal product for long-term	5	3	9				9			1	1
Committing to quality in every stage of the process	5	1	3			3	3	3		3	3
Meet the GMP rules	5	3			3	3	9		3	9	
Qualified employee training	4	3				3		3	9		
Each party can understand the input and output output	3	3		3	3	9		9	3		
Each party can understand the task	3	9		3	3	9		9	9		
Rapid and effective decision-making	3	3	3	9	9			9		3	3
Absolute Importances		132	171	100	76	132	181	120	99	98	102
Relative Importances (%)		11,08	14,36	8,40	6,38	11,08	15,20	10,08	8,31	8,23	8,56

Table 2: Priority of Technical Response

Technical responses	Percentage	Priority
Production system follows the rules	15,20	1
An efficient and effective marketing research	14,36	2
An accurate business process modeling and mapping	11,08	3
The task for each department is transparent and clear	11,08	4
Cross-function between departments / sections clear	10,08	5
Providing clarity of production time and number of products to the customer regularly every booking	8,56	6
Modern, easy, and fast information system	8,40	7
Recruiting a reliable trainer	8,31	8
Examination of the raw materials warehouse and product carefully	8,23	9
Filing system is transparent	6,38	10