

ILM Assignment on Managing Operations

Your topic: ILM assignment on managing operations

Your desired style of citation: Harvard Referencing

Your educational level: Guaranteed First Class

Number of page: 10

Words: 2500

ILM Assignment on Managing Operations

[Writer Name]

[Institute Name]

ILM Assignment on Managing Operations

ILM Assignment on Managing Operations

Definition of Problem

I Work in an organization in the Fire Safety and Security Industry. As system integrators we provide solutions to various customers, from banks/hotels, offices, Factories and Residential customers. Our products include Fire alarm systems, CCTV systems, Intruder alarm systems, Access control, Time Attendance etc. We design and install system as well as we offer after sales services and maintenance services. We are working with a workforce of 200 employees who are divided into four main departments Technical, sales and customer service, operations, and administration. I work in Operations department.

The profits of the company are going down because prices of product are declining due to higher competition in market. Although we are managing to secure more sales but costs are also increasing which consume much of the revenue. Since market is very competitive and prices could not be increased therefore management decided to review operations of the company and reduce costs by eliminating waste and optimising allocation of resources. As changes were made in roles and responsibilities, reorganisation of departments and management layer including subordinates following problems evolved. Insecurity prevailed among employees, clashes between managers evolved and a number of team members resigned. On the other hand remaining employees have to work harder to achieve set targets.

My area of responsibility is limited to operations department thus the problem that encounters my department is to achieve management's decision to eliminate waste and optimise allocation of resources as well as preventing insecurity and resignations. The overall outcome is going to be measured by a reduction in the average monthly costs of the department by reducing waste and

ILM Assignment on Managing Operations

increase in the average monthly output of the department by maximising the usage of resources dedicated for the department. While pursuing these objectives along with the targets that are set for the department we must ensure that we avoid clashes between managers and prevent resignations of team members in the department.

Objectives and Pre-requisites

The basic motive of the management to revise operations and internal processes of the company is decline in profits. Since profits are declining due to declining prices which cannot be increased due to competitive pressure. Thus the other aspect to stimulate profit is to minimise costs and increase operational efficiency of the company. Since costs have shown an increasing trend therefore there are two possible reasons for this trend. There are wastages which increase expenditure and consequently cause reduction in profit and other reason is that resources are being underutilised causing low efficiency. Since the productivity of the resources is low therefore efficiency decreases and overall level of profit decline.

Thus there are two objectives of the company 1) to eliminate wastages and 2) to increase efficiency. The strategy employed by the management to achieve these objectives is reallocation of resources in order to eliminate wastage and increase efficiency. Since this strategy has produced some counterproductive attitude and concerns in the workforce therefore it is necessary to address this issue as a pre-requisite of the strategy. It is essential to find such a strategy that not only leads to the solution of the problem that are arising due to changes but also drive the organisation to the right direction to accomplish the primary objective of the management.

Research Methodology

ILM Assignment on Managing Operations

Lean manufacturing is a term that refers to a philosophy underpinned on the principles of Toyota Production System and various Japanese production practices that were devised to decrease the time order of the customer for a product and shipment of the finished product by increasingly eliminating wastages. Companies involved in various operations such as financial services, software development, distribution specially manufacturing are adopting this philosophy in various forms and aspects of their production system to increase the efficiency of their resources and eliminate wastages in the process. According to Singh (1999), a company can apply lean principles and remove wastes one it identifies existing value stream starting from the placement of the order of the customer to the point where they supply that order. Liker (2004) defines lean manufacturing as a process to add value by eliminating wastes, responding to change, turning focus on the quality and increasing the efficiency of the working force. Czarnecki and Loyd, (1998) defined lean principles as a systematic approach for the identification and elimination of wastes (referred as non-value added activities) by consistent improvement through following the product at the pull of customer to pursue perfection.

Literature Review

In 2008, Piercy and Rich conducted a study of call centres for three financial services companies in UK and demonstrated that lean principles can reduce operational cost and increase customer service quality which compete each other traditionally. Czapke (2007) conducted a study in US and Germany and concluded that Lean manufacturing principles increased efficiency of all plants by enhancing cost efficiency and profitability. In 2007, McGrath found similar results in Irish industry. He identified that lean principles had great favourable effects on the value stream of respective plants and were very effective in reducing wastes and inventory.

ILM Assignment on Managing Operations

Justification

Lean Management as compared to traditional strategies offers more effective tools that suits objectives the management i.e. to eliminate waste and increase efficiency of the department.

The first tool that reduces the waste considerably is Spaghetti diagram or charts. Second tool that will be used to is Takt Time which is used to set target time for production of goods and services that meets the demand of the customers and meet the set targets. Third tool is Swim Lanes for process mapping; this tool elaborates who does what and reduces repetition of work and clashes.

Solution

The Spaghetti Diagram

The spaghetti diagram is useful to for understanding the non-value added path taken by operator or product or information in the company. In traditional facilities, the movement of staff, tooling, materials and information can look like a bowl of spaghetti. It is a useful tool to show material people and information flow within a work area. This will make the wastes of motion (walking) and transportation (moving items about) very apparent. It also helps to uncover other types of wastes such as waiting or over-processing. It is an extremely powerful tool when you want to look waste in a department or for creating a more efficient layout. It is known as a spaghetti diagram because when one is finished with it because of all the lines drawn on it looks like a bowl of spaghetti (Meran et. al., 2008).

The basic concept is to make a scale drawing or a sketch of the working area and trace the path of material, people or information flow over a specified period of time. A scale drawing of the area works best. If there is no scale sketch one has to draw it with footprints of equipment, furniture, walls, doors, windows and so on. It is important to measure the distances carefully so

ILM Assignment on Managing Operations

that the actual distance travelled can be calculated. Trace a separate line each time material, people or information move in the work area. Using different colours or using different type of line like dashed or solid is helpful. Track this movement over a period of time such as 15 mins to an hour, depending upon the amount of travel. Obviously the more movement the more lines are drawn. The more lines are drawn the more difficult the diagram to be read. Then calculate the distances covered (Alukal & Manos, 2006).

We shall use this technique to calculate the movement of employees and information during peak hours and easy hours. Our department is backbone of overall operations. Firstly documents enter into the department and are received by the agents to test the various equipment installed to check if proper alarms are received. Another type of documents that flows in the department is the information of the customers that is used by the front end customer services agents to communicate with them. Thirdly our agents access different filing cabinets (if needed) and coordinate with various authorities. Fourthly our agents move for various breaks. The spaghetti diagram will highlight extra movements of information and people and SOPs can be designed to reduce such wastages.

Swimlane Diagrams

A Swimlane diagram is a form of process flow diagram (also known as a cross-functional diagram). It is known as such because it involves divisions or “lanes.” All lanes are assigned with an actor (which in our department is an individual, and in broader concept a department, a group, a division, an entity, a machine, and so on). Any phase or stage of a process may also be treated as an actor. An actor is responsible for an activity which is described in the lanes. Lanes are drawn either horizontally as rows or vertically as columns. Vertical swimlanes are popular

ILM Assignment on Managing Operations

UML Activity diagrams, whereas horizontal swimlanes are popular in BPMN flowcharts. Irrespective of the horizontal or vertical direction these lanes are used to dispel information in chronological and logical order (Alukal & Manos, 2006).

Swimlane diagrams highlight areas that produce unwanted time lapses, inefficiencies and redundancies. Thus after having the diagram drawn, the managers carefully review areas that produce time lapses and make improvements. According to Morgan (2011), managers use Swimlane diagrams to identify the following

Hand-off(s): Managers evaluate the process of Hand-offs between actors. This means transfer of a portion of one actor to another for example fax or email. In our case our agent receives hardcopy forms of installations from technical department which are used to test the newly installed or serviced equipment. If there is a time elapse in the hand-off or if the Hand-off is increasing motion as mentioned in Spaghetti Diagram then managers discuss the method of Hand-off between the actors and make actual improvements. The discussion facilitates the actors to adopt changes and contribute as well because they are the best expert at that method.

Turn-around(s): If an actor is forced to return to another actor for clarification or more information regarding a previous hand-off in order to carry on with his/her own role then it is called a turn-around. The charts show such movements by backwards movements before forward movements. Each turn-around is a time lapse and needs attention of the managers to rectify the activity or the hand-off method. Managers remove turn-arounds and increase efficiencies so that the actors always move forward without delays.

Who does what: Analysts also use a Swimlane diagram not only to identify what is being done but also to measure who is doing what and at what stage. In this way managers can evaluate

ILM Assignment on Managing Operations

missing or extra links in the chain and identify wastes by reallocating resources and find areas to improve efficiencies by tracking lost time.

Takt Time

Production systems and the related operations should be organized as a function of the products demanded by the customers in terms of quantity, variety and quality. This is necessary to satisfy demand in the market and requirements of the customers. In order to run a customer driven value stream it is essential to devise the production system that can keep up with the pace of demand generated by the customers for the product (Simons and Zokaei, 2005). The pace at which production system produces the goods to match the pace of customer demand is called “Takt time”, the word is a derivative of a German word for pace.

Narusawa and Shook (2009) has defined the Takt time as how often a system should produce one unit of product to cater the requirements of customers based on the sales rate. Another description proposed by Duggan (2002) is that the Takt time is the customer demand rate. It is calculated to synchronize the pace sales of with the pace of production. It is a measure that tells the producer how quickly the system should ideally produce one unit of the product.

Most of the companies are nowadays willing to implement lean control principles in some way or another, for example Takt time. Such controls increase the productivity of their resources. According to Bokhorst & Slomp (2010), Takt time lean control principles have been very successful in high-volume flow environments where jobs shift throughout the production system in one direction aligned on a limited number of individual routes.

Although this concept is apparently useful for the technical department yet it is very important for operations department as well. Since operations department is front line customer interaction

ILM Assignment on Managing Operations

unit and is responsible to produce primary services to our clients. We can use this concept to calculate duration of incoming and outgoing calls made by our agents. These calls include calls to customers, response teams, and technicians. Besides this concept will help us to measure the productivity of our agents furthermore we can reposition them with respect to their performance in individual time scores.

Recommendation

- Lean principles and its tools match existing conditions of our company and potential benefits can significantly contribute to achieve the objectives set by the management.
- Spaghetti diagrams should be used at individual and departmental level in order to eliminate wastes. For example it can be used to eliminate excessive paper work and flow of documents within the department as well as between operations department and other departments such as technical department and sales department. This tool is not a onetime exercise. Considering the nature of the tool repetition of this exercise at both individual level and departmental level will increase the efficiency and remove wastes each time exercise is conducted. It is to be used periodically as continuous improvement is necessary to achieve overall objectives.
- Swimlanes should be used to measure the flow of employees and documents and their respective job descriptions. Time lapses in the process cause significant increase in the duration of production cycle which is one of the major hurdles in achieving targets. Hand-off(s) and Turn-around(s) are one of the key factors that create conflicts between managers and employees between departments and within the department as well. Reallocation of resources is one of the primary targets of the management and Swimlanes can serve efficiently to reallocate resources specially human resources without creating

ILM Assignment on Managing Operations

clashes. It will not only remove time lapses in the production process but also will remove clashes between the managers which has become an alarming situation and leading to conflicts and resignations of important human resource.

- Takt time tool should be used to measure the current production level. It will help to keep us with the sales and other targets. It will increase the efficiency of the employees which can be a huge competitive advantage in current situation. This tool is very useful to measure efficiency and performance of workforce which is usually very difficult.

References

- Alukal, G & Manos, A. (2006). *Lean Kaizen: A Simplified Approach to Process Improvements*. ASQ Quality Press. Wisconsin (USA); pp-22-23.
- Bokhorst, J. & Slomp, J. (2010). *Lean Production Control at a High-Variety, Low-Volume Parts Manufacturer*. *Interfaces*. 40(4); pp-303-312.
- Czabke, J. (2007). *Lean Thinking in the Secondary Wood Products Industry: Challenges and Benefits*, Master Thesis. Oregon State University.
- Czarnecki, H. and Loyd, N., (2004). *Simulation of Lean Assembly Line for High Volume Manufacturing*, Research Paper Published by University of Alabama in Huntsville.
- Duggan, K., J. (202). *Creating Mixed Model Value Streams*. Productivity Press. New York, NY, USA.
- Liker, J K. (2004). *The Toyota Way*, Published by Tata McGraw-Hill.
- McGrath, (2007). *Impact Analysis of Large Scale Lean Manufacturing Initiatives Upon Manufacturing Process Innovation In Irish Companies*. Master thesis. Waterford Institute of Technology.
- Meran et. al. (2008). *Six Sigma+Lean Toolset: Executing Improvement Projects Successfully* Business and Economics. Springer; pp-138
- Morgan, M (2011). *An Introduction to Swimlane Diagrams*. www.modernanalyst.com. Accessed at 17th Dec, 2013 from:

ILM Assignment on Managing Operations

<http://www.modernanalyst.com/Resources/Articles/tabid/115/articleType/ArticleView/articleId/1868/An-Introduction-to-Swimlane-Diagrams.aspx>

Narusawa, T. & Shook, J. (2009). *Kaizen Express: Fundamentals for Your Lean Journey*. The Lean Enterprise Institute. Cambridge. Massachusetts USA.

Piercy, N & Rich, N. (2008). *High Quality and Low Cost: The Lean Service Centre*. Research Paper Published by European Journal of Marketing. 43(11/12); pp-1477-1497.

Simons, D. & Zokaei, K. (2005). *Application of lean paradigm in red meat processing*. British Food Journal, 107(4); pp-192-211.

Singh, R. (1999). *Lean Manufacturing: Changing Paradigms in Product Manufacturing*. the third International Conference on Quality Management. (Delhi) India.