

Just in time benefits for mcdonalds accounting essay



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McDonalds uses JIT system in which it doesn't begin to cook (reheat and assemble) its orders until the order is being placed. Initially it used to preheat a batch of hamburgers and let them be under heat lamps for as long as possible. And eventually the burgers that were not sold were discarded. A special order had to be made to get a fresh burger during the old system. McDonalds has now developed new burger making technology which assists in making burgers faster. While having the finished product sitting in inventory for as short as possible, they also see to it that the customer gets the product as quickly as possible.

Benefits for McDonalds

McDonalds has used JIT in such a way that allows them to improve quality and lower costs.

Improved Quality

They have an advantage when it comes to freshness and taste of the product. The other advantages include firstly, McDonalds is that they don't freak out when they have to make a special order, as they have an experience of making burgers as and when ordered. McDonalds ability to actually produce faster, helps them achieve customer satisfaction. Without this ability, McDonalds ordering costs would be very high as they would have to bare the loss of customers tired of waiting for long durations. Second, McDonalds can adapt to demands in a better and a faster way because of JIT systems. As they can produce burgers in a record time, They don't need to worry about their pre-made burger inventories running out in the middle of a busy shift, as they can produce burgers in a record time.

Lower Costs

Spoilage costs for burger parts are fairly high and lead to high holding costs. That's the reason a burger has a short shelf life and needs to be sold within fifteen minutes or so. But now because of its ability to decrease the inventory and serve the customer faster has led to significant decrease in the costs.

DELL:

Dell has used JIT principles to make its manufacturing process a success. Dell has used a different approach in which it has leveraged its suppliers to achieve the JIT goal. Dell is able to provide their customers short lead times by forcing their suppliers to carry inventory instead of carrying it themselves. By this they can simply assemble the components so that the products can reach the customers quickly.

Effects of JIT on Dell's performance

First we need to see why low inventory would have such a great effect on Dell's performance. The reason behind this is that computers depreciate at a very high rate." The longer you keep it, the faster it deteriorates, you can literally see the stuff rot", Kevin Rollins said it in an interview with Fast Company. Computer components depreciate anywhere between half to full point a week. That's the reason cutting inventory is a financial imperative. The inventory turnover (COGS/Value Of Inventory) for Dell for 10 years.

Dell's Inventory Turnover Data

Due to depreciation alone in 1993 Dell was losing roughly 10% per computer inventory, by 2001 it reduced to 1%. And from there onwards Dell has continued to lower its inventory

Advantages of JIT

Low ordering cost for inventory.

Better output quality.

Reduction in handling cost of material.

Efficient space utilisation.

Less paperwork.

No bottlenecks.

Reduction in losses due to obsolescence of available material.

Quality becomes responsibility of the worker and not just the quality inspector.

Reduced rework.

Smoother production flow.

Easy to trace defects.

Higher worker participation.

Workforce becomes more skilled in the process.

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Vendor development as he gets long and guaranteed contracts at a steady price.

Quality of material sent by vendor is improved.

Sales cost savings.

Limitations of JIT:

Implementation JIT will be expensive initially.

It takes a lot of time to give results.

Chances of losses in the process.

It requires continuous effort and lapse in the intensity can harm the process of implementation.

Its implementation varies for every organisation. There is no fixed way of implementing it.

Its success is also varied from industry to industry.

Companies relying on safety stock can have a problem in implementing this methodology.

It adds pressure on workers.

Due to standardization of processes, workers are not able to find out of the box of solutions for a problem.

JIT implementation also depends on management-workers relations. The two parties being at loggerheads don't help the cause.

JIT involves change. It has been found out that normally people are resistant to change.

Employees need to commit to this philosophy in order for it to be successful.

JIT is best suited to only medium and high volume of production.

JUST IN TIME (JIT)

Just in time(JIT) is a an approach and set of activities designed to achieve high levels of efficiency and involving minimum inventories of raw material, finished goods and work in process. In other words, this philosophy aims at delivering the right product in the required quantity at the right time at minimum cost. needed. It is a pull production system. This approach aims at continual reduction of waste and variance.

HISTORY

JIT is a management philosophy and it has been practiced since 1700's. After the Second World War, Toyota needed to overtake total production of American counterparts in order to survive. American firms produced approximately nine times that of Japanese companies. Ohno, then the president of Toyota studied American system of manufacturing and found out that it could not be applied in Toyota as the demand for automobiles in local markets was low. C: UsersAdityaDesktoptaiichi-ohno. jpg

Accordingly he devised a new system of eliminating “waste” from production system. He identified several aspects, like transportation, overproduction, inventory, defects, etc where waste could be avoided. They also changed the layout of their plants for smoother flow during production.

Taiichi Ohno

Ohno introduced Kanban system. It is essentially information about the work to be done. It was basically a rectangular card which had information about the work that was needed to be performed by a worker. All movement throughout the company was controlled by it. Kanban was completely instituted in the production system of the company ten years after it was introduced. This whole process involved many hiccups and mistakes, but they learnt from those mistakes. It took nearly 10 years, but due to Toyota’s high and more efficient production, the west started to take notice. The positive results were there for everyone to see.

Hence JIT is also referred as “Toyota Production System” and Taiichi Ohno is generally referred to as the father of JIT.

JIT and the world

In today’s world of globalization, the competition in any sector is very high. So JIT initiatives help companies to gain that extra edge with respect to its competitors. JIT reviews and revamps every operation of the company which helps in the better working of a company. It involves planning from executives, workers, inventory etc. In other words it takes into account the operations of various departments in a company.

Prerequisites of applying JIT in a company:

Reason

Executive commitment

Strategic manufacturing plan

Goals of JIT

Various goals targeted by JIT are as given below:

Help the company to have an edge over its competitors.

It aims at minimizing defects occurring during production.

Attainment of customer satisfaction is one of its prime objectives.

It views stock inventory as waste, hence it aims at reducing this aspect in a production system.

This philosophy aims at reducing material handling during production.

Minimum setup time.

Techniques to minimize lead time are brain stormed.

A JIT applied production system should be less vulnerable to breakdowns.

Paperwork involved in the whole process should be reduced to minimum.

Produce products when they are needed and rate at which they are needed.

JIT aims at exposing hidden causes of inventory keeping. According to this philosophy, inventory is considered as waste and it incurs loss instead of adding value, as opposed to the notion that of traditional accounting concepts.

Elements of Just-In-Time Systems

People involvement: Applying JIT in a production system requires combined and committed efforts from each and every person who is directly or indirectly involved with the company. A successful institution of JIT is characterized by degree of people involvement.

Plant layout: A layout of a factory is one of the biggest factors affecting the efficiency of JIT, when applied to an industry.

Standardisation: There has to be standardisation in the components to be able to group activities .

Minimum volatility: There has to be minimum volatility in the cost of inputs and outputs. Also the quality of the inputs are not expected to deteriorate over time. If there is cost increase and quality deterioration , it might more than compensate for the reduction in expenditure on inventory management

Waste: Waste is defined as anything other than minimum amount of equipment, material, part and workers which are absolutely essential for production. According to JIT, there are 7 types of waste.

Transportation waste

Process waste

Inventory waste

Waste of motion

Waste from defects

Wastage of time

Overproduction

Some of the causes of this wastage are identified as layout, incapable processes, methods, lack of training, maintenance, etc. JIT aims at minimizing these and similar wastages taking place in various operations while a company manufactures its final product.

Principles of JIT:

One piece flow: It is also known as Single piece flow or continuous flow. In short it aims at moving the parts from step to step such that there is no wastage in between. It is best suited for a cellular layout where all necessary machines are located in a U-shaped cell in required sequence. This system is mainly used for low mix, high volume manufacturing environments.

Machines in order of process: Machines should be located in such a way that it minimizes material handling. Also the machines should be placed sequentially with respect to the processes the input undergoes.

Small and inexpensive equipments: The whole point of JIT is to maximize productivity and thus reduce overall cost.

Multi process handling workers: This principles aims at combining various processes so that it minimizes material handling.

Easy moving operations: Simple techniques can be used like slides so that it decreases on overall cost of the operations.

Definition of standard operations: This principle helps in attaining high quality as it predefines standard way of performing operations. This results in decrease in probability of defect during processing.

Rate at which customer buys a product: Inventory is ordered, dispatched and handled as and when it is required. This results in minimum stock in the cycle.

Use of KANBAN system: This technique was invented by Toyota motor company. It aims at controlling all the operations that are performed by use of signalling cards(Kanban). It helps in quick notification and reduces delay and ambiguity in the production line.

Tactics:

Single minute exchange of dies

Statistical process control

Use of standard containers

Doable schedule with adequate visibility

TAKT time

5-s program

Kaizen event

Visual control

Flexible workers

Tools where they are needed.

Product redesign

Group technology

Total productive maintenance

Following diagrams shows how to go about implementing JIT in a company

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Misconceptions of JIT

JIT is a Japanese technique.

Inventory is a major part while applying this philosophy, but it is not the only aspect in JIT. If JIT is applied as inventory control alone, chances are that it might fail.

Using JIT technique doesn't push the inventory to the supplier, leaving him with heavy inventory load. JIT implementation results in no excess inventory anywhere.

JIT systems are not just quality control programs. It is more of an operating philosophy.

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Application of JIT in Industry

1. Hospital Industry: With the application of JIT, hospitals are reducing the inventory stock and are placing orders at a more regular interval. Nurses were scheduled in permanent shifts to improve the nursing quality.
2. Retail Industry: With the help of Information Technology, sales information is relayed to the vendors instantly. This helps in better monitoring of the stock level and reordering at the threshold time. It helps in reducing the inventory stock pile up and also at the same time respond quickly to a change in demand. Wal-Mart has shown good profits after the implementation of JIT.
3. Information Technology Industry: The IT industry has started following the Just In Time to improve the human resource utilisation. The traditional practise used to be to hire resources in advance in the anticipation of future projects. Now the trend is to hire resources as and when the projects are in hand.

4. Manufacturing Industry: The objective is to maximise the manufacturing capacity and at the same time maintain high quality. This is done by maintaining limited number of high quality suppliers but ensuring the relationship is very reliable between the customer and supplier. The next step is to optimise each step in production line and to make parts with no defects. Also the production should be in line with the demands of the consumers.

Just In Time in Indian Context:

The lifestyle, values and beliefs that are influenced by traditions in societies have a direct impact on the work culture along with technological forces. The JIT methodology imposes requisites that are not necessarily aligned with this work culture. Managerial styles and practices vary from country to country depending on their cultural norms. Thus, JIT implementation and its success depend greatly on work culture. Taking this thought forward, the implementation of JIT in India would be different from its implementation in its western counterparts. Hence, using a generic implementation strategy might lead to issues not faced in other parts of the world.

JIT in Indian Companies:

The last decade has witnessed a great deal of growth in the Indian automobile sector. The Indian Automobile industry is the seventh largest in the world, the fourth largest exporter in Asia and produced over 2.6 million units in 2009.

JIT methodology has been widely implemented in the Indian enterprises, especially in Indian automobile and manufacturing companies.

Some of the Indian companies which are using JIT techniques include Lucas TVS, Gontermann-Peipers Ind Ltd, Volkswagen India, Tata Motors, IFB etc.

Lucas-TVS:

Lucas-TVS is a major player in Auto Electricals in India today with with almost fifty years experience in design and manufacturing. 80% of vehicles rolled out daily are fitted with Lucas-TVS products. In order to deliver products at low cost and high quality, Lucas-TVS employed techniques like Total Quality Management (TQM) and Quality Assurance methods like Advanced Product Quality Planning, Statistical Process Control Techniques, Effective Tool Management System, Process Capability Improvements.

Stage I (1963-85):

Traditional (Batch mode, Functionally organized) manufacturing methods.

Stage II (1985-95):

Introduction of cellular (Lean) manufacturing - Formation of cells and product units.

ISO 9001

Stage III (1995-99):

Introduction of single piece flow manufacturing.

TQM Initiatives QS 9000

Stage IV (1999-2004):

TQM Initiatives

Advanced JIT - Chaku Chaku. Large Cells

ISO 14001

TS 16949

Challenging Deming Application Prize by 2004.

Stage V (2005 onwards):

Advanced TQM

TPM Initiatives

Advanced JIT, Mixed Model Line, Jidoka.

Challenging Japanese Quality medal by 2009.

In its pursuit of technological as well as methodological excellence, Lucas-TVS has adopted the Cellular Manufacturing System and Just In Time and also helped suppliers to adopt the same. With the implementation of this system, components from suppliers are delivered to it on a pull basis using FIFO concept and assisted by simple visual controls and using KANBAN system, supplied to the line on an hourly basis.

Following are the JIT related International awards won by the company:

- JIT Innovation Award by JIT Management Lab, Tokyo (2001 & 2004)

- JIT Grand Prix Award by JIT Management Lab, Tokyo (2002, 2005 & 2006)

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- Deming Application Prize 2004

Gontermann-Peipers India Limited:

GPI has created a niche in the Cast Roll and Forge Roll manufacturing sector.

It is the only company in India to achieve TPM Level I. With a view to enhance the operational efficiency of the employees at all levels extensive training programmes such as Six Sigma, Total Productive Maintenance, Just In Time, Performance Management System have been infused into the HR policies related to training in the Company.

GPI, using techniques such as tight control on cost, better realization and operating efficiency etc has been able to maintain an enviable bottom line. To achieve the maximum performance efficiency, it has adopted modern management techniques like Just-In-Time, Total Productive Maintenance, Activity Based Costing in consultation with leading consultants in the mentioned fields.

Volkswagen India:

Volkswagen India is headquartered in Pune and recently launched its \$700 million manufacturing plant for Polo in Chakkan. Volkswagen acknowledges India as a important hub for manufacturing and expects India to be in the top five auto markets by 2016. The challenge in India is the price sensitivity and the dependent need to keep operational costs low. Using techniques like Just In Time, the company plans to control quality and technological inflow by following a global sourcing model in the Indian context.

Learning and Recommendation:

JIT is beneficial in reducing operational inefficiencies, leveraging on effectiveness and quality processes in organizations. At the same time, some of its key elements are difficult to implement in the present Indian production settings. In order to maximize the usefulness of JIT, Indian enterprises need to modify their operational procedures accordingly. Before entering into JIT based manufacturing, companies need to train their employees in order to establish an organizational culture, set up new procedures for supply chain management, study of operations in order to identify possible avenues for standardizing, simplifying, automating and reengineering of processes and procedures in operations. Failure to meet these prerequisites will lead to problems with human resources and on the supplier end. Although it has been proved that JIT has its benefits in the Indian scenario, it still has ample scope of being customized for the country to reap full dividends.