Operations Management Final Essay

Summary

There are many areas present in every type of business firm. Though, one area can be easily overlooked; operations management. Many of the activities of operations management are done “behind the scenes” and so it is easy to comprehend why many people overlook it. However, the few that can recognize its value are bound to succeed. While it previously existed for the sole purpose of lowering costs, operations management is now much more than that. The field of operations management takes a more proactive approach in businesses today and it enables companies to not only minimize costs, but also maximize the value of its goods and services. Operations management is usually looked at in two different perspectives; its overall value to an organization, and its contribution to day-to-day activities. And while the two perspectives contain dissimilar activities, both require important decisions to be made.

Through strategic decisions, tactical decisions, and operational planning/control decisions, operational management allows businesses and their employees to identify specific issues and accomplish them efficiently. One factor that affects all three is becoming increasingly more popular in today’s society; that factor is technology. While it has never grown at the rate is currently, the utilization of technology can be seen throughout the history of business operations. For example, Henry Ford’s revolutionary introduction of the Moving Assembly Line sprouted from the use of technology.

Technology is reshaping the business world, and subsequently changing operations management. As globalization becomes a leading trend, technology is becoming more and more of a necessity. Businesses are realizing the need of incorporating new technologies into their systems, and they are taking action. The businesses that are doing this are able to go through

their products' value chain and successfully outsource offshore, while businesses that are neglecting the importance of technology are slowly but surely falling behind.

In addition to the usage of technology, scientific management is another crucial element in operations management. Introduced by Frederick W. Taylor, scientific management brings mathematical reasoning to conduct employees' activities in the most efficient way possible. "The essence of Taylor's philosophy was that scientific laws govern how much a worker can produce per day and that it is the function of management to discover and use these laws in its production systems" (Davis, Heineke pg. 19). Other notable people who have influenced the evolution of operations management include F. J. Roethlisberger, W. J. Dickson, and Elton Mayo with his conduction of the Hawthorne studies in the 1920s and 1930s.

Important Strategies

As previously mentioned, operations management decisions can be divided into three parts: strategic, tactical, and operational planning/control. Strategic decisions focus on long range decisions including how to make the product, where to locate facilities, and establishing quantity of capacity. Strategic decisions are arguably more important than tactical and operational decision, and thus, they should be given more initial attention than tactical decisions and operational decisions.

A major strategy that goes along with this is Supply Chain Management. Concentrating on producing high-quality products, supply chain management is one of the most important aspects of operations management. Previously labelled as "materials management", the title in and of itself displays its importance. Supply Chain Management "reflects senior management's recognition of the strategic role of suppliers in contributing to the long-term success of the firm"

(Davis, Heineke pg. 104). Without it, firms would be unable to produce high quality goods on a regular basis.

Another aspect of strategy is New Product and Service Development. As a result of technology development, consumers are becoming increasingly more familiar with competing products. This forces firms to produce new products more frequently. One important thing to keep in mind is the Product-Process Matrix which shows the relationship between processes and their respective volumes. For instance, oil refinery has the highest volumes, and is highly standardized. It would be considered a continuous process and therefore, it would have a high amount of fixed costs. On the other end of the spectrum, movie production which is more customized, and results in less fixed costs. Attention to the matrix can help firms establish the type of life cycle their products and/or services will have, and it will help them dodge the Seven Deadly Wastes.

The Seven Deadly Wastes, first identified by Toyota, are as follows: overproduction, waiting time, transportation, processing, inventory, motion, and waste from product defects. Upon identifying these wastes, the Toyota Production System was created to avoid them as well as increase optimization. It is often referred to as "Lean Production".

Perhaps one of the most important concepts in the entire course, lean production is defined in the textbook as "an integrated set of activities designed to achieve high-volume flexible production using minimal inventories of raw materials" (Davis, Heineke pg. 349). Lean production incorporates Focused Factory Networks, Jidoka, Just-in-Time Production, and the Kanban Production Control System (among other strategies) to ensure maximum efficiency. Focused Factory Networks allow for smaller specialized factories to produce higher quality products at a lower cost. Jidoka eliminates the inefficiency of using inspectors, and instead gives

the responsibility of inspection to the worker that is present in the factory so that they can remove defects without slowing down the entire production line. JIT results in the best quality for a specific quantity, and the Kanban Production Control System can simplify production tremendously by creating a pull system in which products are produced only when the card ahead is empty.

Additionally, locating manufacturing facilities is oftentimes another critical decision. When deciding where to locate a facility, both qualitative and quantitative factors must be considered. One without the other is unacceptable and will result in failure. Qualitative factors include local infrastructure, worker education and skills, content requirements, and economic stability, while quantitative factors include labor costs, exchange rates, distribution costs, facility costs, and tax rates. Methods for choosing locations include the simplistic Factor-Rating Systems, the quantitative Center-of-Gravity Method, and the realistic spreadsheet approach.

Once the important strategic decisions are made, managers can then proceed to concentrate on tactical and operational decisions. Tactical decisions, focus on workers. The goal here is to figure out just how many workers are needed, when they are needed, establishing their shifts, scheduling deliveries, and deciding whether or not to have a finished goods inventory. Lastly, operational decisions focus on short term decisions including weekly and daily task management and priority. If management can successfully focus their time and energy proportionately between these three types of decision, and if they know how to use techniques that are applicable to their firm, they will undoubtedly see economic success.

Real World Application

As far as real world involvement, I have very little business experience. However, I will soon be entering the business world and have a retail position at Target.

Though I am starting small, I expect to see a specific development trend as I climb to new positions. As the textbook mentions, and as I have written about in this essay, operational decisions are divided into three types; strategic, tactical, and operational planning and control. So, beginning with my position as Executive Intern at Target, I expect to go from being involved with the short-range operational decisions and their effects. After that, I expect to find myself in a mid-level position in which I will be involved in the medium-range tactical decision making process. Eventually, I believe I will have a high position and find myself making the more important long-range strategic decisions. Assuming that I continue on my current path, I will be involved in the retail area throughout my career.

During my time at Target this upcoming summer, I expect to be involved in some of the smaller aspects including day-to-day tasks such as small exchanges, warehouse storage, and informational telecommunications. While I will not be as much of an influential piece of Target's overall decision making, I know that my job performance and my ability to perform these tasks proficiently will help the company maintain its success. While I am not going to be a manager, I will be working with different managers and I will hopefully be able to discuss their decisions that affect the store and my activities. At the very least, I will see the effects of their decision and be able to identify what is taking place from an operations management point of view.

Hopefully, I will be able to use this real-world experience to attain a higher job in the fall that will allow me to be involved in tactical decisions. I will be a part of deciding how our products will be made, where facilities will be located, how much capacity we will have, and

whether or not we will add to our current capacity. Eventually, I expect to make the most important decisions of the firm that are incorporated into the strategic decisions.

Having learned what I have learned in this course, I think I will definitely be able to utilize my knowledge in order to meet my long-term goal of owning and running my own retail firm. I think the most crucial thing that I will have to remember is the importance of technology and lean production. Assuming that my future retail firm is anything like Target, these two aspects might possibly be the most important things. Being a math-oriented person, I believe that I will use scientific management fairly easily. Every firm, no matter the size, depends on the efficiency of its workers. I am going to hold myself to the standard of avoiding all seven of the deadly wastes. I will make sure that overproduction, waiting time, transportation, processing, inventory, motion, and waste from product defects are minimized as much as possible. Making supply chain management a top priority in my firm will allow my firm and I to connect business partners, customers, and suppliers in the best way possible and obtain the highest amount of satisfaction from each party.

In summation, Operations Management and the topics discussed throughout the course have resulted in a mind-opening experience. While I currently have very little experience, I have great aspirations for the future and expect that I will be in a managerial position soon enough. I will take what I have learned in this course to every position that lies ahead of me, and as a result of my learnings, I think I will see massive success.