

The Importance of Technology in Operations Management

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What is technology and the benefits, and disadvantages it has on the business world. The state of technology has been evolving to the point where many businesses and especially the professionals or management inside these professions would not know how to operate. There are all types of technologies that serve to enhance our operations management. Well-defined operations management is essential to the success of a businesses ability to move forward. As we explore how technology has enhanced operations management, we have to understand what operations management is and how it affects the overall base of the business. As part of operations management, the value chain has become an asset to the growth of a business. Technology has played a huge role in the success of businesses. The technology used to enhance operations management and the value chain like e-commerce inventory control and project management software allows businesses to be more efficient and succeed in business. I have had a lot of experience in developing technology that helps define our operations management.

Understanding the technologies used as we continue to discuss how technology is used in operations management is very important. There are two types of technologies most commonly discussed for operations management. A Hard Technology refers to equipment and/or devices that perform a variety of tasks in the creation and delivery of goods and services. (Collier 92) Hard technologies are most commonly used in manufacturing plants like machine robotics used to create a product for purchase. Soft technologies refers to the application of the Internet, computer software, and information systems to

provide data, information systems to provide data, information, and analysis and to facilitate, the accomplishment of creating and delivery goods and services.

(Collier 92) When developing efficiency in operations management, soft technology is the most commonly used type of technology.

Decision-making is difficult enough for a manager or executive. Having the right operations management plan in place highly increases efficiency and success whether it's a manufacturing plant, web or software development company, or healthcare services. Good or bad operations management affects all industries. There are many companies that have unique operations management that could give a company a competitive advantage. Operations management becomes essential to the success of a company's ability to deliver products and services to a customer or client. A great operations manager should possess certain skills and personality traits such as interpersonal skills, holistic vision, long-term vision, effective leadership, propensity to innovation and work ethic. (Boudraad 1) In addition an operations manager should have skills such as great project management skills, an understanding or skills in the environment he/she is working in, ability to multitask among many other qualities. The operations manager controls so much of how the company operates that it's essential to have a broad range of expertise and abilities.

The importance of value-chains has greatly increased even with the highest executives of corporations to develop strategies and enhance interactions with business partners. (Sheridan 22) A value chain is a network of facilities and processes that describes the flow of materials, finished goods,

services, information, and financial transactions from suppliers, through the facilities and processes that create goods and services, and those that deliver them to the customer. (Collier 24) When considering the value-chain, you must consider what processes do you have in place to that adds value to your company or a competitive advantage over your competition because of your process. This ultimately is your value-chain. "A value-chain management has clearly become "a strategic imperative" in most companies," observes Robery Neubert, Ernst & Young's national director of automotive and industrial products services. "It is not something that is being left to the purchasing department. It has reached the highest levels in the corporation," he says. "People see it as a key element of strategy." (Sheridan 22) The value-chain has been evolving for many years but technology certainly has added to its ability to be more successful inside a company. Technology has played a huge role in the success of the value-chain with technology like inventory tracking. This has contributed to a higher level of performance across the chain. (Sheridan 22) The benefits of technology in the value-chain management has been very important as its increase conversations between key stakeholders and the operations management team. In one article, David Rubin, president of Don Aux Associates says "companies must have systems that operate reliably and accurately at very high speeds." His term for addressing this need is called "velocity management." It's supply chain management at rapid speeds. Rubin goes on to explain that value-chain and supply chain management doesn't go far enough with technology. (Wilson 1)

There are many types of software used to enhance operations management or the value-chain as we discussed. As we continue to look at soft technologies that help in the process of developing successful operations management, we will at the software available to do these tasks. Some examples of these soft technologies that help in operations management is customer relationship management tools or CRM. This helps organize a sales rep or project managers conversations with a client. For example, Salesforce, a cloud-based CRM, integrates with email and other software's to efficiently organize the conversations between the project manager or sales rep with the client. Project management software is another big piece of software that helps with successful operations management. Many project management software solutions will develop timelines, schedules, allocation of budget and organization of tasks all in one place. This has greatly enhanced a businesses ability to provide outstanding customer service with quicker response times and more effective information as it's all in one place. Other technologies used in operations management are accounting software and inventory management. All these technologies play a role in the success of operations management.

With the success of the Internet, e-commerce businesses have generated more opportunity for small businesses or startups. Businesses that solely operate as an e-commerce business needs very clear operations management systems in place. Businesses like Amazon and Zappos have clear approaches on how to handle incoming inquire, manufacturing and ordering, accounting, and customer service. In addition to companies operating solely on the basis of online sales,

small businesses from around the world have been able to generate additional income through online sales. When businesses started implementing e-commerce practices, the processes were very sporadic. How to accept payments and get it into the bank account and inventory control were the two most commonly missed management processes with e-commerce. Overtime, as more businesses have developed an e-commerce portion to their value-chain, best practices have been duplicated to give businesses a basis of success. Inventory management software plays a huge role in this success as well as more efficient web development solutions that can manage payments on the site and have them directly deposited into the businesses bank account. In the early days of e-commerce, Paypal was a common payment gateway for businesses to receive money since it was easy to develop and secure. Other payment gateways have been developed to make the process more efficient and banks like Bank of America have developed their own payment gateway to help in this process.

The value in an effective supply chain management and operations management plan is essential for the growth of a company. I have either worked for large corporations or owned my own business where either an operations management plan was in place or one was not hugely needed. However, over the last two years working for a small business that has to have processes in place to function correctly, I have learned a lot about operations management. Working for a technology based company, the use of technology has come essential to use for our operations management. When I arrived at my company,

we had been using two cloud-based services to help in our supply chain management process. The two services we were using were a project management system and accounting software. The first thing I had to work on understanding our process. Once I understand our process, I can develop our service management. Our service management would integrate all the different aspects of our business to create a internal and external experience. I learned that we had no system in place to manage customer relations, and the conversations happening between the client and us. So we needed to purchase a relationship management tool. As part of our supply chain management process, once the contract is sign, I have a variety of forms that are put together for the client and initial. We than prepare the project in our project management system. One additional hole I saw in our operations management was time management with our process. So we purchased time management software to keep track of our clients. Overall, we now have project management software, customer relationship management software, time management software, and accounting software all integrated together to create an internal solutions known as our operations management plan.

Supply chain management and value-chain management has become such an important part to businesses. Their everyday business environment is surrounded around the success of these operations management needs. Technology plays a huge role in the success of these management processes. There are lot technologies that enhance a businesses ability to succeed. I have found in my education and experience just how important technology is to the

success of creating great operations management. In this ever-changing environment of technology, new technologies are being developed everyday to help businesses increase productivity, sell more goods, and overall create a better experience for businesses day to day.

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