Operations management and information systems

Business, Management

Introduction:

Operations management in the contemporary businessenvironmentrequires the application of various strategies which enhance reliability, efficiency, and effectiveness in the process of getting goods to the final consumer. An important aspect of operations management includes supply chain management which suggests that it is essential for a firm to be aware of how it will deliver goods to the final consumer and through which channel or mediums. The contemporary business environment requires the use oftechnologyto support operations management and to enable effectivecommunicationwith various parties in the production and supply chain process (Bonaccorsi & Rossi, 2003).

Accordingly, this report focuses upon a boutique business by the name of Heelz and is based in England. The business has gradually grown over the years and now amounts to seven stores out of which two are located in Spain. Thus, the business is looking to internationally expand and gain market share in the European market. Due to the recent expansion, the owner of the business, Sally has purchased a warehouse in South England. Sally wants to launch an e-commerce arm to her existing business but is not interested in incurring excessive additional expenditure. As Sally's boutique, Heelz and the three new shops she has bought from Zapatos have completely different technological systems; she needs to integrate the two new parts of the business and must also add" b2c" e-commerce functionality within her business. Sally's requirements include full integration of these information systems with the retail stores and not only relying upon return/exchange or purchase of goods via courier. Sally requires advice on

whether the use of open source software is appropriate for her business as she feels that the use of packaged software would be a highly expensive option.

This report will focus upon the use of open source software and compare it to the use of packaged software. The report will begin with a general analysis of the advantages and disadvantages of using open-source software. The report will then continue with a comparative analysis of using packaged software and apply it to Sally's situation in order to determine whether the use of open-source software is appropriate for the business. The report will then continue to explain the Strategic Systems Information Planning Process and conclude with a summary of the main points made in the report.

Advantages and Disadvantages of Open-Source Software:

The use of open-source software is a relatively new concept which has become increasingly popular over the years. One of the biggest reasons for this popularity is because the use of open –source software is completely free. However, as the software is developed by a non-profit community, it also suffers from some disadvantages. The first advantage of open-source software is free to use and it is also free to distribute to various consumers (Lerner & Tirole, 2002). Moreover, it is also easy to modify open-source software. The use of open-source software involves very low costs which amount to only a fraction of the costs associated with using other similar packaged software (Dahlander & Magnusson, 2008).

Open-source software is accessed by a large community of people thus bugs are fixed instantly and users do not have to wait for the next release of the software to fix problems. Thus, the use of open source software enables the use of a secure and stable code. The use of open-source software is not dependent upon any particular company or person and the use of the software can continue whether the company or the person exists or not. Open source software uses a format which is easily accessible for everyone and does not have problems of being incompatible with certain formats. Moreover, there is no need for the use of anti-piracy measures and complex licensing models like those used in packaged software (Weber, 2004).

However, there are various disadvantages of using open-source software which include not being straightforward or easy to use. Thus, such software cannot be learnt in a day and require extensive training or the hiring of a professional before they can be properly used. All functions are not easily used on open-source software and there may be some problems in integrating proprietary software with open-source software. Hardware functions may have a problem in being compatible with open-source platforms which makes it vital to use third-party drivers (Lakhani & Von-Hippel, 2003).

Hence, it is highly advisable that adopting open-source platforms should not be a choice based upon the low-cost involved. Thus, firms should appropriately analyze and understand the requirements of open-source platforms before they decide to implement and use them in their business (Crowston, Howison, , & Annabi, 2006).

Advantages and Disadvantages of Packaged Software:

Packaged software include IT solutions which are bought from companies offering a whole solution to IT applications with various functions. Such software includes customer relationship management software, enterprise management software, and other solutions which help companies organize their customer records and operations and provide an efficient flow of information from one party to another. Using packaged software solutions enables a firm to use smaller programs in which applications are all together. As packaged software solutions are offered at an expensive price, the software packages are also easy to use. Moreover, they also offer a number of functions integrated into one package and thus means it is easier for companies to connect all of their outlets or stores with one software solution (Chen & Popovich, 2003).

However, there are also certain disadvantages associated with the use of packaged software which include the fact that once a bug or a defect is discovered in packaged software, it may take substantial time to fix this problem or it may only be corrected when a new version of the software is developed. Moreover, purchasing a packaged software solution may be highly expensive for a firm and may require ample effort in integration with all the IT systems of the firm. Moreover, packaged solutions have limited functions and are thus focused upon certain processes rather than providing unlimited functions which may be available in other open-source software packages. Hence, while packaged solutions do offer substantial advantages to the consumer, they also pose a certain number of disadvantages as well.

Accordingly, it is important for a firm to analyze whether it is appropriate for it to use a packaged solution or whether it is appropriate for it to use another IT solution according to its specific requirements (Reinartz, Krafft, & Hoyer, 2003).

Analysis:

Sally's boutique, Heelz, has expanded to a large extent and is now internationally dispersed in Europe with three outlets. Moreover, as Sally has added a warehouse in South England to her business, there is a need for her to be able to integrate all of her retail outlets, warehouse, and her customers via one system. While Sally does not wish to incur immense overhead costs, she is more interested in using open-source software packages to integrate her e-commerce system. However, as mentioned above, while using open-source software platforms may be low-cost and economical for some firms, it is vital to not only consider the low-cost aspect of using open-source software but a firm should consider its particular circumstances (Xu et al, 2002).

In Sally's case, using open source software would provide her with an economical solution, a variety of functions, and the ability to make the software compatible with different systems. However, the problems posed with the use of open-source software are that it is less reliable, may not be efficient, and may also be highly confusing to use. It may also be problematic to use open-source software while attempting to integrate it with various hardware systems. As Sally has to integrate various parts of her business with her " b2c" e-commerce solution, she requires a reliable network which

would also be customized to suit her needs and appropriately attend to the requirements of the Heelz brand name. Thus, while she does not want to incur excessive cost, using open-source technology may not be appropriate to suit the reliability and efficiency needs of her business. Moreover, she is likely to incur excessive costs by using open-source technology as she would probably have to train workers to use the software that she opts to use and it would be difficult to integrate the software on all the hardware systems in her various stores (Parvatiyar & Sheth, 2001).

Accordingly, as Sally's operations are dispersed across borders and she needs to integrate the stores, warehouse, and her customers with one another, she needs a reliable and efficient solution which will be easy for her customers to use, easy for her workers to use, and will also best project the Heelz brand name. Hence, it is most appropriate for Sally to use a packaged software solution for her business rather than using an open-source platform (Wilson, Daniel, & McDonald, 2002).

The next section of this report will explain how Sally can go about integrating various parts of her operations including her warehouse, stores, and customers with one packaged software solution.

Customer Relationship Management Software:

As Sally wants to set up a " b2c" e-commerce system and integrate its warehouse and stores through one IT solution, it may be most beneficial for the company to use customer relationship management software. Such software can provide the company with a number of functions which include

placing orders and making payments via credit card and other means, communicating with customers, making new offers, and ordering new stock when there is insufficient stock available. Thus, the company will remain in touch with customer demands, be able to forecast future customer preferences, communicate with customers and receive feedback regarding previous stock, and inform customers of new forthcoming stock. Moreover, using such software can make it easier for the company to anticipate future demand trends, keep accurate customer records, and design effective marketing campaigns based upon customer preferences and feedback. It will also enable the company to appropriately manage its supply chain and order stock that is needed instead of piling up unwanted stock (Ryals & Knox, 2001).

In order to integrate CRM software upon all of its systems, the company must ensure that all of its systems are compatible with the software selected and then must install the software upon all of its systems including the company's warehouse, retail stores including the newly purchased ones from Zapatos, and with its customers. As the software may be relatively easy to use, the company must simply make all of its employees familiar with the use of these systems through one to two training sessions and can then use the systems to their advantage (Mithas, Krishnan, & Fornell, 2005).

Using a packaged software solution can enable the company to make maximum use of the functions it offers and integrate the software effectively within all of its dispersed operational outlets. Moreover, the company can opt for an economical packaged solution and as it may be a one-time

investment, it may not incur the company excessive overhead costs. However, considering the fact that reliability and efficiency are very important for the company because of its growing size and needs, the company should not opt for an open-source IT solution (Mendoza et al, 2007).

Conclusion:

Thus, according to the specific requirements of Heelz boutique and its growing size, this report concludes that it is most appropriate for the company to opt for packaged solutions in order to integrate its various operational outlets and its customers. The company cannot opt for open-source technological platforms because of their complex nature and because the company's needs are likely to change often in the coming years. Moreover, the company requires a highly reliable and stable solution which can help the company grow its operations and effectively communicate with its customers (Jayachandran et al, 2005).

Accordingly, this report recommends that the company opt for a packaged customer relationship management solution to meet its need for " b2c" e-commerce with its customers. The company can optimize its use of a customer relationship management software by choosing a low-cost package which is compatible with the hardware installed on the systems of all its stores and its warehouse. Accordingly, the company will be able to efficiently and effectively communicate with its customers, enable them to place orders and track their shipments, provide feedback and complaints, and be informed of new products amongst many other things. Moreover, the

company can keep accurate and up-to-date records regarding customer preferences and future demand forecasts (Jayachandran et al, 2005).

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