Information technology case study sample

Business, Marketing

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Part. 1.

Inter-organizational systems (IOS) are automated information systems shared between one or more organizations. They are ICT based systems that enable businesses and organizations to electronically perform and conduct businesses and share information across business boundaries (Oz 2009, pp 87). Since the establishment and the increasingly availability of information systems and the internet, there has been few limitations of technological barriers (Schmidt and Jared 2013, pp 59). However, this does not imply that IOS operations are successfully implemented or have no limitations and challenges.

The supply chain management has been considered one of the crucial elements of business success. The key objectives of supply chain include cycle time reduction, effectiveness in business processes, inventory

management, customer service, and adaptability and flexibility in the system (Rajola 2003, pp 41). Supply chain focuses on logistics and operations coordination, product development, and partnership in business and market research. Key issues in implementation of supply chains in many businesses are inclusive of relationship managements, complexity due to scales of supply chains, incentive systems to boost performance measurements, reluctance and delays in information sharing, and aligning business interests of all parties involved in a transaction.

ADVANTAGES OF IOS IN SCM.

The current information systems and existence of IOS have resolved some of the limitations or challenges faced in supply chain management. There are three criteria of sophistication in IOS that have enabled efficiency in modern supply chains; communication, coordination, and cooperation. There is uniqueness in the availability of information and increased communication infrastructure with minimal efforts and time lags. IOS links the various parties or partners in the supply chain by the use of private and public telecommunications infrastructure (Ravesteyn 2009, pp 36). The systems provide computer to computer communications where parties involved in the supply chain transact their businesses online, pay for the transactions, and wait for delivery of products without having to travel to long distances or use resources and time. This has shortened the supply chain cycle, and improved efficiency in business.

The internal IS coordination with computer-computer communication offers a routine validation in production, order processing, and planning. This involves entering the orders or specifications of the customer into the

system leading to easement the process. This also offers the efficiency in routine validation, order processing, production and planning systems. IOS offers an active coordination of production planning, logistics, and delivery schedules (Schmidt and Jared 2013, pp 38). The level of information or technology applied in a business; however, determine the success of the coordination element.

Co-operation involves integrating and relating business partners who share common goals and interests, and use similar means in measuring and evaluating the performance of their inter-organizational activities (Shaw 2006, pp 89). Cooperation occurs at a wide range of levels spanning multiple functional areas in a business. For example, a business can provide information to buyers and suppliers and get inputs and outputs as desired by the customers. This forms advancement in supply chain management as it shifts focus from traditional logistics to business processes where partners are linked. IOS also acts as a tool for decision making as it reduces uncertainties in operations by improving the availability of information required for decision making. This reduces the expense related to risk mitigation, product spoilage, or late deliveries.

DISADVANTAGES OF IOS IN SCM.

The focus of IOS on the supply chain process is of external use to an organization. This tends to raise some management issues that may be out of control of the management. Successful implementation of IOS requires cooperation among all external trading partners who may have differences in commonalities of objectives. The free flow of information may be a threat to some intermediaries in the chain as they may be solely based on being

buffering or information agents to overcome uncertainties. This may imply jeopardizes in information where some intermediaries may use the IOS platform for their advantage (Oz 2009, pp 83). For instance, if the information from the manufacturer to the retailer is instantaneous, the existence of a distributor in the IOS may be to jeopardize. To address such an issue, the system used by an organization should only implement a chain of distribution that favors its policies and integrates only the critical parties in its business.

The IOS limits the market size, which hinders the scope of the business in achieving its objectives. The parties involved are limited and integrated into the system. This limits the ability of the business to expand and look for a larger market base. To avoid such limitations, businesses should implement various supply chains to increase the chances of having larger market shares (Ter 2010, pp 79). However, this may be limited in terms of the cost, and dealing with many parties who may interfere with a business system.

IOS is also challenged on slow network connections. Implementation of IOS is exclusively dependent on the efficiency of the network selection that a business implements. Additionally, the numbers of parties act as a catalyst in terms of speed of operations. Connecting all these parties implies slow process in terms of production and delivery processes. This can be minimized by reducing the number of channels of distribution, and implementing faster communication and coordination policies amongst the parties.

PART 2.

PRODUCTION, MANUFACTURING AND TRANSPORTATION DEPARTMENTS.

The manufacturing and production units are crucial if the success of a business is to be achieved. These departments massively require efficient production and operations systems that ease coordination, allow communication, and boost efficiency. The use of such systems as Production and Operations Management Software allow the functioning of these departments.

The units also require management of logistics and procurement. This involves the complex process of ordering, procurement, and inbound and outbound logistics. Implementation of IT systems in this case allows integration of all parties of the supply chain, coordination with these parties, optimization of all transport operations and acts as a management system in distribution and transportation. IT also offers a platform for inventory control, which is crucial in production, manufacturing and transportation (Oz 2009, pp 91). The implementation of such systems as Quality Control systems, Just-in-Time systems, and Lean manufacturing systems allow efficiency in maintaining the levels of inventory. Other IT systems that boost transportation, production and manufacturing activities include MES (Manufacturing Execution Systems, and CIM (Computer Integrated Manufacturing) Systems, that provide production tools and control daily business activities.

Modern organizations have become more globalized than traditional organizations. This implies increased need to outsource, planning, and management expertise. There is increased need for data integration and

processing. There is the need to improve on efficiency on deliveries, on a timely manner, and quality production. The increased competition in the modern market also poses a challenge on the systems used in manufacturing, production, and transport.

Fast solutions are required if businesses are to remain competitive and offer quality production as demanded by the modern consumer. Some of the solutions that may solve these issues include implementation of quality tools of planning, control, and management. There is the need to integrate all skills required for effective management that include leadership, communication, procurement skills, supervision, and quantity management. Another dependable solution would be the use of innovative solutions. Encouraging and boosting innovation and creativity would allow production of differentiated products, which would meet the diversities in market behavior. There is also the need for improving on technology as most technological tools are flexible. Modern technology keeps changing and businesses need to be flexible to accommodate such changes.

SALES AND MARKETING SYSTEMS.

IT supports the sales and marketing department through data driven sales and marketing systems, sales and distribution systems, and marketing management systems. These systems allow business expansion by boosting the capacity to innovate, and boost the creation of new and differentiated products and services. Systems such as the data driven marketing allow the collection of data that is useful in making strategies such as advertising, and responding to clients needs according to the feedback collected from such data.

The sales and marketing department face a significant challenge as a result of differences in the interests of parties involved in the two departments. The sales department focuses on increased sales and profits while the marketing department focuses on increasing the value of products to the customers. Marketers focus on customer trends while sellers focus on acting on all available opportunities that increase business profits (Oz 2009, pp 89). The systems available do not offer sustainable measures of integrating the roles of sales and marketing departments. To remain on top, there is the need to implement systems that integrate the roles of sales and marketing departments so that their roles are centered on both increasing consumer share as well as market share.

ACCOUNTING, FINANCE AND COMPLIANCE SYSTEMS.

These units are used in measuring and assessing the performance of a business. The information provided by the accounting, finance and compliance departments is useful for external purposes such as investors, financiers, the supply chain, and government. The use of IT in these departments boosts the control and management of profits, assets, liabilities and cash flows, which provide the financial positions of a business (Beke 2012, pp 56). Such information is relevant in determining the performance of the business and in determining whether the business is achieving its objectives. The use of IT in these departments also ensures limited cases of fraud as the systems act as control measures. It also boosts planning, budgeting, forecasting and decision making processes, which are essentials for business success.

These IT systems have been faced by various challenges depending on their uses. Accounting and finance massively rely on the integration and automation of significant amounts of data. As a result of globalization, there is the need for database integration and formation of global systems, which will connect data reporting and interactions. There is the need for efficiency in the global market, and upgrading of the systems. This calls for consistent updates on information changes, streamlining production processes, and efficiency in profitability and cost analysis, which may not be available with the current systems (Beke 2012, pp 63). With the current accounting and finance systems there lacks integration and connections of the management to the workers particularly the management with the front office. To solve these issues, the business community requires an acquisition of a standardized globalized system that encourages office integration and coordination, financial reporting, and information processing and access.

HUMAN RESOURCE SYSTEMS.

Human resource information systems provide powerful solutions to the Human resource department, which allows a reduction of workforce yet maximizing on the outputs of the available workforce. The systems allow compliance to the expectations of the business, boosts recruitments, employee development, and for motivational purposes. The systems also boost relations amongst the employees as well as with the management by allowing communication, coordination and integration of the workers.
Most businesses, however, lack efficient systems that update their database or store information relevant for HR uses. The available systems scatter data in various forms. There is compromised storage of data, which risks security

and privacy of HR processes (Valverde and Malleswara 2012, pp 57). The solution is to implement systems that keep up-to-date HR information for the management of employees. This will encourage compliance, promote ethics, and support worker-management relationships.

PART 3.

Decision Support Systems (DSS) are interaction information systems that assist decision makers in approaching issues by offering access to data and analytical models useful in problem solving. The processes are designed to support decision making processes rather than rendering decisions (Ravesteyn 2009, pp 86). The hallmark of DSS is its flexibility and easy usage.

Problems faced by businesses face differ in terms of how structured they appear or the extent to which a solution procedure can be developed. The principal realm of DSS is to offer support for semi-structured problems where parts of the decision making process require systemized support. DSS assists managers facing semi-structured problems by injecting necessary factual grounds that support access to data (Shaw 2006, pp 71). DSS offers support in obtaining quantitative results needed to make a decision. It operates in an ad hoc mode suitable to the needs of the managers. It also offers an easy means of modification of models that may be causing management issues.

Executive Information Systems (EIS) is also a part of DSS that assists managers in identifying opportunities and problems, and also monitors enterprise performance. EIS provides company description, market research data, and sales performance, among other information of a company. The primary aim of EIS is to offer support to managerial learning of an enterprise,

its work processes, and interaction with the external environment. It also allows a timely access to information (Ravesteyn 2009, pp 74). All information contained in EIS can be obtained through traditional methods. However, the time and resources required to compile the information manually in a variety of formats, and in response to ever changing problems, managers are inhibited from obtaining such information from traditional methods.

DSS and EIS play a crucial role in supply chain management; they act as tools used in executing supply chain transactions, control business processes, and manages supplier relationships. This is achieved through the implementation of inventory management systems that track assets, order management, and service management. Additionally it offers warehouse management, which is a crucial aspect of SCM. It assist in processing, movement, and storage of materials in warehouses, including shipping, receiving, and deliveries. The systems also support SCM by offering processing and control systems of customer requirements.

DDS and EIS also promote Customer Relationship Management (CRM). This is a system that manages current and future interactions between a business and customers. It is the technology that automates, organizes, and synchronizes sales, customer service, marketing, and technical aid (Rajola 2003, pp 37). It boosts customer service through call centre software, which directs customers to agents. DDS and EIS also boost marketing tracking through different media forms such as social sites, mails, and telephones. This allows quick response of customer’s request. Such media is also used

for building customer relationships where customers share and communicate ideas, opinions, and experiences with the company.

PART 4.

Often buyers want to know a business value, processes and efficiency. Driving word of mouth and advertising of the products may not be enough for potential buyers to make sustainable opinions about a business. Buyers need to be engaged in a business's happenings, keep track of raw materials, know the status of their orders, and familiarize with business operations and systems used, products, and service provision and efficiency. Failure to provide such access, in the modern markets, poses a challenge of buyer's mistrust.

Even before the introduction of computer and information technology, customers used to inspect business records and reports, which acted as a guide to a business processes. Every customer requires processing detailed data that has up-to-date records about the fundamental business operations of a business. Customers require information on their orders, and inventory control policies of businesses (Shaw 2006, pp 68). For a business, supporting day-to-day activities helps the company attain value to its products. Depending on customer, value may mean higher quality, low prices, product uniqueness, or better services (Rajola 2003, pp 28). For such reasons, there is need to balance off the needs of consumers with those of the business, so that value and quality is enhanced from both perspectives.

Implementing the transaction process system (TPS) into the operation systems of a business serves this purpose. TPS is an information processing system that involves collection, retrieval, and modification of all transaction

data. Providing information and access to business operation systems is primarily based on intangible benefits.

TPS provides business efficiency or intangible benefits from three perspectives: from system routine functions, application development functions, and system administration function. Adapting this system for this business would imply that integrity, security and availability of data are ensured. Additionally, it will offer fast responses in time. TPS will also provide functions useful for customer business applications, including functions that enable access to data, design and manage users interface, and perform inter-computer communications (Valverde and Malleswara 2012, pp 32). Most importantly, it will provide administrative support required in managing and monitoring transactions (Rajola 2003, pp 34). The ability to transact and conduct business in a timely manner will boost the company's growth and profitability levels. Implementing TPS will also be feasible as it will assist the business in achieving a competitive advantage, boost relationships with suppliers, offer superior information gathering, and reduce business costs. Funding such a project for implementation of TPS would act as an incentive in becoming a service-oriented business. The modern market is more skewed into service delivery and customer share than to price levels and market share. TPS would add on customer value and add on the customer's loyalty towards efficiency. TPS will be beneficial to the business as manual transaction processing that takes days to produce routine reports will be eliminated and automated system, which updates every transaction put into place.

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