

CHAPTER 2 – LITERATURE REVIEW

2.1. Business Concept

Burlton has defined the business concept in simplistic view as any organization intended to create results of value for someone who cares about those results¹. Moreover, Burlton also defined business as a transformation vehicle since the purpose of any business entity is to act as a transformation mechanism. Therefore, business includes any events and conditions triggering the action, customer requirements, and consumable resources such as raw materials, money, and information that transformed into goods, services, and business outcomes for the customer's benefit.

2.2. Business Process

There are several descriptions of business process. As mentioned by Burlton in Business Process Management textbook about a true business process that started on the first event initiating a course of action and it can be completed when the result is deemed satisfaction by the stakeholders' perspective as the initiator. Any process transformed into outputs and results required inputs of all components including raw materials, information, knowledge, and so forth. Thus, process guidance like policies, standards, procedures, rules, and individual knowledge are necessity as the business cornerstone. Additionally, some resources include facilities, equipment, technologies, and human are required to enable the process.

Mainly, the final test of business process is whether the results can fulfill the requirements in order to deliver a clear product or service to an external stakeholder like customers or another internal process like another department.

¹ Burlton, R. T., (2001), *Business Process Management: Profiting From Process*, Sams Publishing, Indianapolis, Indiana.

Harrington stated that process can be defined as any activity or group activities that takes an input, adds value to it, and provides an output to internal or external customer². Business Process is the end-to-end coordinated set of collaborative and transactional work activities carried out by both automated systems and people to produce any desired result or to achieve a goal³.

Briefly, business process is a form of set of tasks that transforms data, product, or both and creates a particular output where from one sequence to another typically adds value. Clearly, business processes included purchase requisition, manufacturing process, distribution process, sales order process, and so forth are conducted in all management level in order to obtain targeted goal.

Actually, Harrington also mentioned that expending much more effort to improve our business processes during the 1990s would be a major factor in being competitive in the twenty first century. Since business process occurs in daily basis, it holds the core value of corporation. Thus, it should control and maintain its effectiveness, efficiency, as well as competitiveness.

2.3. Business Process Automation

Business Process Automation (BPA) is the process of integrating enterprise applications, reducing human intervention wherever possible, and assembling software services into end-to-end process flows⁴. As a significant part of business process reengineering, BPA improves operational efficiencies and reduces risks. BPA

² Harrington, H. J., (1991), *Business Process Improvement: The Breakthrough Strategy for Total Quality, Productivity, and Competitiveness*, McGraw-Hill, Inc, USA.

³ Fingar, P., Bellini, J., (2004), *The Real Time Enterprise: Competing on Time Using the Revolutionary Business SEx Machine*, Meghan-Kiffer Press, Tampa, Florida.

⁴ Wikipedia Free Encyclopedia, (2005), Business Process Automation, http://en.wikipedia.org/wiki/Business_process_automation, retrieved on May 05, 2005.

is made possible through enterprise application integration and service-oriented architecture solutions.

Business Process Automation (BPA) is also defined as the replacement of manual business process with an automated one, usually through the use of advance technology⁵.

From the above definitions, can be derived that business process automation is replacing the business mechanism from manual to automatic using the technology advance such as web-based system or software. Thus, the technology is applied into the business mechanism without any jobs cut. BPA is a method for increasing efficiency and effectiveness of work.

2.3.1. Digital Firm and Information Technology

Laudon & Laudon defined the digital firm as an organization where most of the significant business processes and relationship with customers, suppliers, and employees are digitally enabled⁶. Moreover, key corporate assets such as intellectual property, core competencies, as well as financial and human assets are managed through digital means. Companies that closely become digital firm are Cisco Systems and Dell Computer Corporation by utilizing Internet in their business processes.

The Internet evolution transforms organization into networked enterprises, enables information to be instantly flowed within and beyond the organization. In addition, internal business process can be improved and coordinated with other organizations.

⁵ Bitpipe, (2005), Business Process Automation, <http://www.bitpipe.com/tlist/Business-Process-Automation.html>, retrieved on May 01, 2005.

⁶ Laudon, K. C., Laudon, J. P., (2004), *Management Information System: Managing the Digital Firm*, Pearson Education, Inc., Upper Saddle River, New Jersey

Therefore, these new ways of conducting business electronically creates the digital firm.

Accelerate the information exchange within organization, partners, and customers.

Automation enables faster workflow such as order processing or delivery time. According to Laudon & Laudon, the Internet technology infrastructure establishes seamlessly flow of information from one part of organization to another and from the organization to its customers, suppliers, and business partners.

Redesign Workflows

The replacement of manual work procedures with automated work procedures, workflows, and work processes are addressed by information technology. By eliminating paper-based system and human error may result reduction in cost of operation and leads to organization efficiency.

Reduce the Cost of Operation

Cost reduction is one of the significant impacts of automation. In an article by Reiley and Spulber⁷, processing a purchase order manually, including paperwork, data entry, phone calls, faxes, and approval requests can be quite expensive. British Telecom estimates that by moving external procurement function to electronic commerce, it has reduced its cost from \$113 to \$8 per transaction. Laudon & Laudon mentioned that processing a single customer order manually can cost \$15, whereas the cost drops to \$.80 per transaction by using a web-based system.

Manage the Business Workflows

Information technology facilitates the management processes in order to obtain information on company's performance at any given time and place. Several powerful

⁷ Reiley, D. L., Spulber, D. F., (2000), Business-to-Business Electronic Commerce, Journal of Economic Perspective, November 2000, p. 4.

tools are provided to give more precise planning, forecasting, and monitoring the business process. Therefore, it is obvious that information technology can create effectiveness and efficiency. As a result, it would lead to an improvement of productivity and gain competitive advantage.

2.4. Competitive Advantage

Porter states that competition as the core of the success or failure of companies⁸. Regarding this statement, competitiveness determines the company's activities that enable to contribute to its performance comprises of innovations, culture, and good implementation. Competitive strategy is how the company set its position in a competitive industry within long-term plan in intention of establishing a profitable and sustainable position.

Competitive advantage can be defined as the fundamental result that comes out of company's value chain. When a company is able to sustain its profits exceeding the average for its industry, it means the company obtains competitive advantage. Moreover, competitive advantage cannot be considered from company's performance as a whole, since it grows from the discrete process that performed in producing, marketing, distributing, and servicing within company.

Porter identified two basic types of competitive advantage:

1. Cost Advantage
2. Differentiation Advantage

A cost advantage may be derived from different sources as a low-cost physical distribution system, a highly efficient assembly process, or superior sales force employment. Differentiation advantage can be derived from similarly diverse factors such as procurement of high quality raw materials, a responsive order entry system, or

⁸ Porter, M. E., (1985), *Competitive Advantage: Creating and Sustaining Superior Performance*, Free Press, New York.

superior product design. Porter has introduced the value chain as the basic instrument for systematic way of examining all the activities performed by the company and how they interact, and thus would simplify to analyze the sources of competitive advantage.

2.5. The Relationship between Business Process Automation and Competitive Advantage

The opinion of Porter is that technological change is one of the principal drivers of competition. In fact, the industry structural alteration, as well as new industry creation has been the major impact of technological change. To grasp a comprehensive understanding about the role of technologies played in competitive advantage, evaluating the value chain within the company is involved. Technology development in the value chain influence both, primary activities and supporting activities.

Overall, technologies are facilities to support the process in the value chain. In this case, automation is associated with technologies while competitive advantage is acquired from activities in the value chain. Consequently, competitive advantage can be achieved through automation process by adopting technology application in the business process.