REVIEW ARTICLE

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Business Process Reengineering – A Review on Change Management

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Abstract

With today's highly competitive and rapidly changing world economic marketplace, firms must adopt business process reengineering to sustain their competitive advantages and increase profitability. BPR is one of the most popular ongoing change management theories as a solution for firms to improve their performance significantly, upraise their efficiencies, and gain a competitive advantage in this constantly developing and changing world. BPR usually leads to essential organizational changes in terms of structure and management processes. This paper aims to explore the change management process through BPR implementation in Radiant Optoelectronics Company. At the same time, focusing on six interventions, including Open systems planning, Trans-organizational development (TD), Business process reengineering (BPR), Business Restructuring, Work Redesign, and Socio-technical Systems Approach (STS). Each intervention is accompanied by its definitions, advantages and disadvantages, and comparison and contrast with other interventions. These interventions differ from each other primarily in terms of IT innovation, communication environment, and application in product design and performance. This report recommends BPR as the best intervention for Radiant Company to accomplish its goals because it emphasizes cost reduction, product and service quality, and organizational system speed. Besides, there is evidence that companies that implement BPR enjoy significant benefits in improved customer satisfaction, productivity, and profitability. However, this study suggests that the company must be keen on this strategy since it is time-consuming and may harm people's jobs if proper plans are not done before implementation. Other issues that the company might experience due to poor planning include lack of sustained management commitment and leadership, unrealistic scope and expectations, resistance to change, and higher demands.

Keywords: BPR, Change Management, Performance, restructuring, organizational systems

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Introduction

Currently, the world's economic marketplace is rapidly changing and highly competitive, that organizations need to give up outdated ways of doing business and adjust to changes in their environment. Business Process Reengineering (BPR) is one of the most popular change management approaches which has attracted significant attention from practitioners and academicians and has become commonplace among companies. This study is based on Radiant Opto-electronics Company, a multinational Opto-electronics company established in July 1995. The company's head office is located in Kaohsiung Export Processing Zone in Taiwan. Radiant Opto-electronics is the first professional R&D and manufacturer of backlight modules that focus on designing, manufacturing, assembling, and marketing backlight modules.

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Following the continuous expansion in the application of liquid crystal and the consistent development and innovation of new technologies, the backlight module industry has entered into an inter-regional competition from regional competition after more than ten years of development. In order to prepare to meet more powerful and high-class competitors, customers' high expectations, and demands in the future, Radiant is implementing BPR to enhance its global business

blueprint and outstanding operating performances and to cultivate talented people for crucial long-term development in national, regional, and global markets (Radiant, 2009).

Literature Review

Open systems planning

Generally, an open system is a framework that often shares feedback with its external environment. In other words, it is a group of sections adding up to a whole that interacts with their environment through efforts, materials, and information exchange, aiming to renew and grow the organizational system (Jaskyte, 2020). Open system planning (OSP) improves individual and organizational effectiveness by enhancing interactions between the organizational systems and their external environment. OSP is usually ideal for organizations seeking a more flexible environment for systems integration and development. It provides improved utilization of information technology and helps organizations be more adaptive to changes (Jaskyte, 2020). Besides, OSP increases organizational performance and functionality through cost reduction using new technology (Martin & Hough, 1992). However, Chau (1997) has found a significant failed relationship between these benefits and adoption that is quite different from other IT innovations studies. Like the socio-technical system approach and work redesign, OSP focuses on the communication environment and IT innovation.

Trans-organizational Development

Trans-organizational development (TD) refers to a development strategy for organizations seeking efficacy and achievement of set goals such as improved financial performance, customer satisfaction, and the power to adjust to new changes. The core intention of TD is to facilitate the effectiveness of an organization through the application of exceptional proficiencies and resources such as innovative products (Singh & Ramdeo, 2020). Furthermore, TD assists organizations to develop and maintain multi-organization connections, transcend the perspective of single organizations and deal with the issues and needs of all organizations or stakeholders involved (Singh & Ramdeo, 2020). According to Singh and Ramdeo, many organizations nowadays adopt the Trans-organizational development strategy to provide additional resources for research and development. Applying diverse professionalism to solve complex tasks and issues spreads new risks, helps organizations attain economies of scale, and access more diverse markets can be the other options.

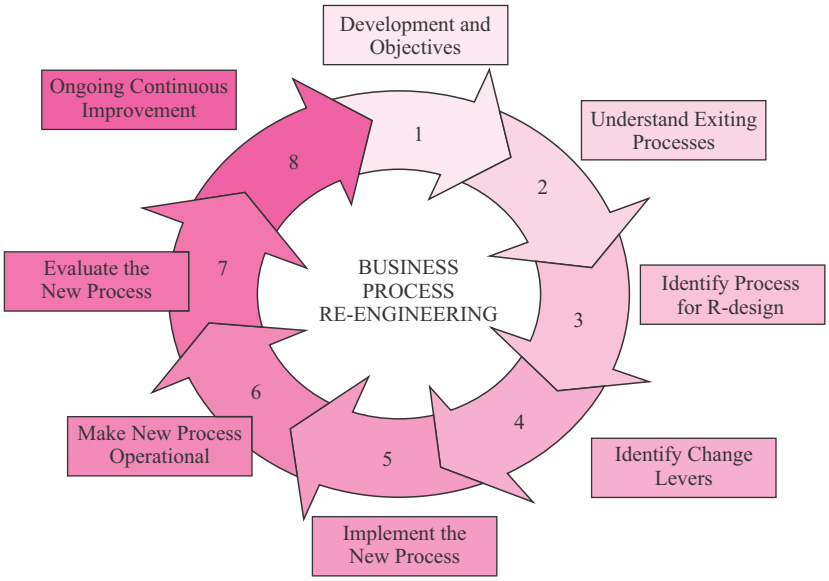
Boje (1979) described TD as collective storytelling shaped and co-constructed by the participants in an organization. Each stakeholder expresses their collective storytelling's points of view, whether problem-based, issue-based, solution-based, or just fantasy based on the meaning. The main advantages of TD are that when people communicate their stories, they convoke to interact and form everyday experiences, form networks for actions. Change develops around their collective storytelling (Boje, 1982). However, research has shown different impacts on learning and knowledge interwork during trans-organizational product design and innovation performance (Millar, Demaid & Quintas, 1997). Therefore, TD is similar to the socio-technical system approach and differs from work redesign and business restructuring.

Business process reengineering (BPR)

BPR is the process of redesigning or changing the prevailing business procedures (Lizano-Mora et al., 2021). Lizano-Mora et al. argue that an organization is a simple collection of roles and a complete operating system with very independent sections that work for the organization's good. In most cases, BPR is considered an organizational development project led by a project team that analyses and implements the required changes. Lizano-Mora et al. also suggest that BPR creates a vision for businesses and offers a business goal after business and management redesigning. Ongeri, Magutu, and Litondo (2020) regard information technology as the core consideration in BPR for a company that seeks to make radical changes. Ongeri, Magutu, and Litondo further argue that IT utilization in BPR challenges the traditional notion of discontinuous recognizing or thinking and deviating from the outdated rules and fundamental assumptions underlying organizational operations. They explain BPR stating that IT is a core resource that ensures critical changes in marketing,

competitive behavior, and customer service and helps organizations attain competitive advantages.

The concept and purpose of BPR are to trace its roots back to management and to make all processes the best (Goksoy, Ozsoy, & Vayvay, 2012). However, the foundation of BPR is the growth of the company products or services' improvement; failure to emphasize the company's strategy hence cannot lead to radical improvement (Gupta & Rohe, 1997). BPR can be defined as the process of a set of connected actions to take an input and transform it into an output. The transformation should also add value to the input, thus producing an output that is beneficial to the



Source: Vakola et al. (1998)

Figure1 : The process of BPR

customers (Johansson *et al.,* 1993). However, BPR is very time-consuming and with high-risk and high rewards. Some reasons for failing to carry out BPR are resistance to change, lack of preparation, incorrect strategic mission and vision, and high expectations too early (Goksoy, Ozsoy&Vayvay, 2012). Unlike business restructuring that focuses more on downsizing, BPR focuses on innovating and improving organizational performance.

Business Restructuring

Business Restructuring, often initiated as a rescue tool, mainly when firms are dealing with negative earning, which forces organizations to operate things such as a takeover, mergers, divestitures, financial recapitalizations, going-private transactions, spin-offs, and splits-up (Weston, Jawien, Levitas, 1998; Lin, Zu-Hsu, & Gibbs, 2008). When a company undergoes business restructuring, it organizes its system in a way that improves its functioning. The business restructuring may also entail reconfigurations or simple changes such as segregating, adding, dissolving, or transferring business units that may have little or no impact on the deeper structure (Ongeri, Magutu & Litondo, 2020). Ongeri, Magutu, and Litondo explain that successful business restructuring requires debtors to make fundamental and strategic changes to the organization and have the required resources to carry out the significant upheavals.

Business restructuring is usually essential when firms encounter changing business environment, unsatisfactory operating performance and stock returns, financial distress, economic recession, and corporate disciplinary events (Lin, Zu-Hsu & Gibbs, 2008). Although it is considered as a rescue tool to save firms, there are still some negative impacts. For example, cost control is often the first step to return to profitability. Reducing labor costs, production costs, selling and administrative expenses, R&D expenditures, and financing costs are standard measures of corporate

restructurings (Lin, Zu-Hsu & Gibbs, 2008). In addition, firms will lose their talent, and organizational knowledge will outflow. Nevertheless, compared to other interventions, business restructuring saves the firm from financial loss and deficit, unlike others, by mainly focusing on organizational improvement and innovation.

Job or work redesign

Job or work redesign refers to activities that involve the alternation of specific jobs to improve both productivities and benefit both employees' work experiences and their employers (Hackman, 1980; Hornung et al., 2010). Further benefits include more intrinsically satisfying work and greater wellbeing for employees, along with gains in employee attendance, retention, performance, and productivity that employers value. Moreover, this positive work-outcome will lead to employees' initiative, organizational commitment, empowerment, and increasing work engagement, reducing work stressors (Hornung et al., 2010). However, an empirical study has found a negative impact on the government in Taiwan. Therefore, organizations must provide a way to counter negative attitudes toward change among employees' resistance to change, which may hamper the organization's effectiveness (Chen & Chen, 2008). Compared with other interventions, work redesign focuses on employees' productivity and performance outcomes, whereas other interventions focus on organizational performance and innovation.

Socio-technical Systems Approach (STS)

STS are design methods that consider human, social, organizational, and technical factors in the organizational systems design process (Ongeri, Magutu & Litondo, 2020). STS aims to ensure that the organizational and technical dimensions of a system are addressed together. However, although many managers recognize the importance of socio-technical issues, STS methods are rarely utilized, primarily due to challenges in using the methods and the lack of connection between these approaches and technical engineering issues. Besides, many individuals usually encounter issues interacting with technical systems. Ongeri, Magutu, and Litondo view that systems design should consider social and technical factors that affect the operation and utilization of computer-based systems. Failure to do so can alter the ability of the systems to make the desired contribution to the organizational goals.

The benefits of STS are that it enables the firms to redesign job-related processes and holds jobs in organizations that can be conceived in terms of social and technical subsystems. On the one hand, the social subsystem comprises the profile and expectations of employees, patterns of supervisory-subordinate relationships, interpersonal relationships of employees, and the natural interaction of subgroups within the population. On the other hand, an organization's technical subsystem involves tools, work techniques and procedures, skills, knowledge, and devices used by the social subsystem employees to complete the organization's tasks (Ghosh & Sahney, 2011). Nevertheless, according to Ghosh and Sahney (2011), STS has significantly influenced managerial retention. Comparing STS to others, this intervention focuses more on internal communication between social aspects and technology for change management, similar to trans-organizational development.

In contrast, STS, unlike business restructuring, is a big project. Several authors' viewpoints are that businesses should reap significant bonuses by thinking of businesses in terms of process rather than just jobs (Gupta &Rohe, 1997; Johansson et al., 1993). Furthermore, instead of reducing the size of functions to cut cost, several authors advocated reform process to create more value for less effort (Johansson et al., 1993; Hammer & Champy, 1993; Alter, 1990; Venkatraman, 1991; Davenport & Short, 1990; Wastell et al., 1994).

Conclusion And Future Business Implications

BPR is defined as a management tool to streamline and simplify operations and business processes so that organizations become ready to compete and survive (Gupta & Rohe, 1997). Besides, BPR helps organizations to accomplish significant improvements by rethinking and redesigning the way that business systems work, with the help of information technology (IT) as the primary facilitator. (Jain, Chandrasekaran & Gunasekaran, 2010; Lee, Chu & Tseng, 2009). BPR is also the best approach to achieve all the Radiant factors

because it is highly founded on innovation and improvement, process redesign, and information technology.

Furthermore, BPR emphasizes cost reduction, product quality, service, and speed of organizational systems from the literature. Organizations that have commenced reengineering projects report significant benefits from their BPR experience in many areas, such as customer satisfaction, productivity, and profitability (Goksoy, Ozsoy & Vayvay, 2012). Furthermore, the human dimension is also a crucial factor, as all employees will be involved in the change. Ongeri, Magutu, and Litondo state that a total commitment for employees is the most crucial aspect in successfully implementing BPR since none of the strategies explored can be successful without employee engagement. However, in this regard, the key challenge for managing change is to fully understand and positively instill change desires among them (Goksoy, Ozsoy & Vayvay, 2012).

On the other hand, BPR is also a time-consuming management tool to act, and it is harmful to people's jobs, either through change or through elimination. Therefore, from a theoretical perspective, undertaking BPR is a high-risk and high-reward proposition. Besides, if a BPR occurs in a multifaceted socio-technical environment, the risk of failure would be enormous. Some organizations proceed without appropriate plans for dealing with change involving organizational structure, management systems, human resources, and information technology architecture.
On the other hand, Gupta and Rohe (1997) think a BPR share group can be a productive and low-cost forum for organizations to understand these elements of change and to keep up with the future refinements of BPR. The biggest problems are lack of sustained management commitment and leadership, unrealistic scope and expectations, resistance to change, and higher demands to the workers (Malhotra, 1998; Goksoy, Ozsoy & Vayvay, 2012). Moreover, other reasons for poor BPR outcomes are expecting too soon, undertaking projects without a comprehensive, cost-effective analysis, lack of expertise on redesigning a set of related activities, and lack of partnership between the internal IT department other departments. (Goksoy, Ozsoy & Vayvay, 2012).

This literature has recommended Business Process Reengineering for Radiant to sustain competitiveness in today's global economy. There is an urgent need to rethink and transform the existing business process for improved quality and efficiency, reduced costs, and increased profitability. However, the company's management must be aware of the associated risks to place the necessary measures to counter any risks.

This study defined six interventions - Open systems planning, Trans-organizational development (TD), Business process reengineering (BPR), Business Restructuring, Work Redesign, and Socio-technical Systems Approach (STS), with their definition, advantages, and disadvantages, compare and contrast with other interventions. Finally, the report suggested a significant recommendation towards implementing BPR in change management in Radiant Company, with the associated potential advantages and disadvantages of implementing the organization development intervention to improve its innovation and performance.

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