
The Difference between Business Process Management, System Analysis and Other Types of Business Process Modeling

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Abstract: This article trying to lay emphasis on four types of business modeling evergreen topics: business processing management, business analyzing, system analyzing and business processing reengineering by doing comparison between them. The conceptual foundation of the research is based on insights from the resource-based view (RBV) papers, books and theory its complementary competence perspective; the literature; and from the findings of the exploratory study. The research methodology used for descriptive research design. A major element of the paper is offers a number of an original contribution to students, academics and practitioners. The paper is valuable for them because its development and validation of the research model and its accompanying measurement instrument. The findings show these concepts are important and required to work closely together in order to deliver a set of included small business services to the user community, otherwise the overall technology services themselves will not provide any value to the business unless data should be used to achieve the requirements. It is evidently that combination of these concepts and Information Technologies (IT) results into reliable systems in the enterprises. The Business Processing management, The Business analyzing, both system analyzing and Business Processing Re-engineering can be considered as complementary to each other rather than as a substitute like piece of puzzle. They are contributing to the value addition of the small business.

Keywords: Business Process management (BPM), Business analysis (BA), system analysis (SA), Business Process Reengineering (BPR), Information Technology (IT).

1. INTRODUCTION

We live in an era of uncertainty. Economic world and business context are rapidly changed. Since that, most of all enterprises are becoming increasingly dynamic (unstable) and will change over time. This enormous change in the business processes offered rise to process automation and in revolve to the terms like Business Processing Management, Business analyzing, system analyzing, Business Processing Reengineering, and so on.

Nowadays, Small Businesses account for a significant proportion of business activity in Saudi Arabia [1]. These small businesses face many challenges related to how business processes done. One of the key challenges is that inability to determine which type of model is appropriate in the context for them more than others [2]. Business Process management, Business analysis, system analysis and Business Process Reengineering are not just fancy words for the same things as the nerds that make industry work.

It is easy to get confused with these technical terms and current trends or substitute of each other. Specifically, the objective of the current paper is to structure and explain, what is the different between these concepts? How these different perspectives can be brought together in Small Businesses at Saudi Arabia? (as future work).

2. Business Process management

A data model is a description of how data must be used to achieve the requirements which given by the clients. Data modeling differs according to the type of the business process, because the business processes needs to be identified in the modeling stages [3]. The first type of business process in modeling is Business processing management.

Business processing management (BPM) has different roots in computer science field. [4]. There are many definition of business processing management, as there are vendors, process, analysts, researchers, academics, and customers [5]. However, Business processing management is a systematic, management and holistic approach of molding, automation, control, optimization, execution and measurement of business activity workflows. BPM focuses on aligning all aspects of an enterprises workflow in order to achieve stakeholder's needs and promotes to continuously improve processes and organization's equipment and core operations [3].



Figure 1: BPM is a systematic and holistic approach of molding using technologies and methodologies

Figure1 [5] illustrated BMP as achieved organizational objectives, effectiveness, efficiency through a set of methodologies and technologies to maximize the effect of inputs by improving and optimizing outputs. BPM also defined as a subset of infrastructure management aims to encapsulate methods, techniques, tools and software involved throughout all stages of the process lifecycle (analysis, design, enactment and control) and supported it to evaluating the current processes of small business then identifying opportunities to improve performance outcomes [6].

Margaret Rouse was defining BPM as a comprehensive concept using Business process to determine connection within organizations objectives between the line-of-business (LOB) [7] and the IT department that what recognizes the capability, effectiveness and efficiency to creating and facilitating communication between IT and the LOB in order to optimizing and achieving core operations [8].

Process modeling is not a new phenomenon; therefore, it is difficult to pinpoint the beginning stage of BPM. But the notations for mapping out process diagrams seem to be in constant state of flux. The concept of Business Process management (BPM) gained across the board acceptance as a viable way to deal with catch and impart forms as a part of an enterprise’s effort to enhance operational productivity [9]. Once the potential for development has been recognized, organizations are challenged with the topic of actualizing the proposed changes or not.

3. Business analysis

Business analysis is the process of understanding the needs of business change, and flowing activities in order to assessing the business impact of those changes, acquiring analyzing and then documenting requirements step by step to supporting the communication and delivery of requirements with relevant stakeholders."[10]. Business analysis (BA) also define as a research discipline of identifying business achievements, needs, risk, assess of process improvement, organizational strategic change, policy development and determining solutions to business problems [11].

Business Analysis focusing on understanding the existing systems and business processes then analyze and organization the business domain then documenting the current state that needs to change with technology [12].

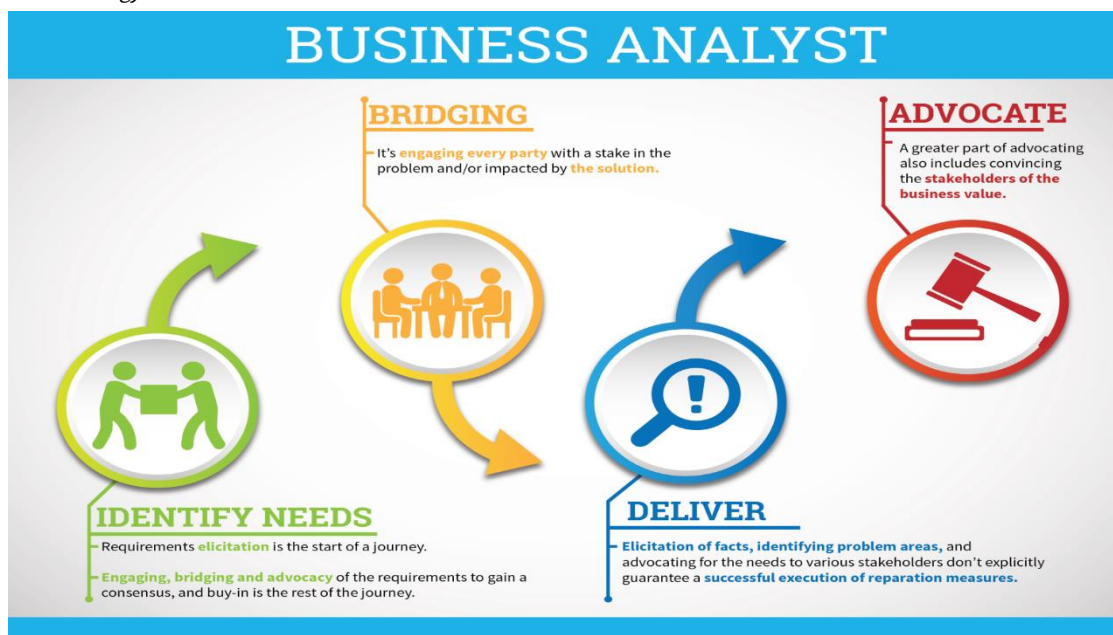


Figure 2: business Analyst consider and clarify whether the existing system is working well or there is any problem in terms of speed or process etc

The Figure2 [13] explain the main role of business analyst role which that a liaison between different stockholders in an organization (Business unit, technical unit, managerial unit and functional unite). Business analysis BA acts as a bridge, a connector and helps the complete project team work as a tightly integrated unite which figure3 illustrate [14].

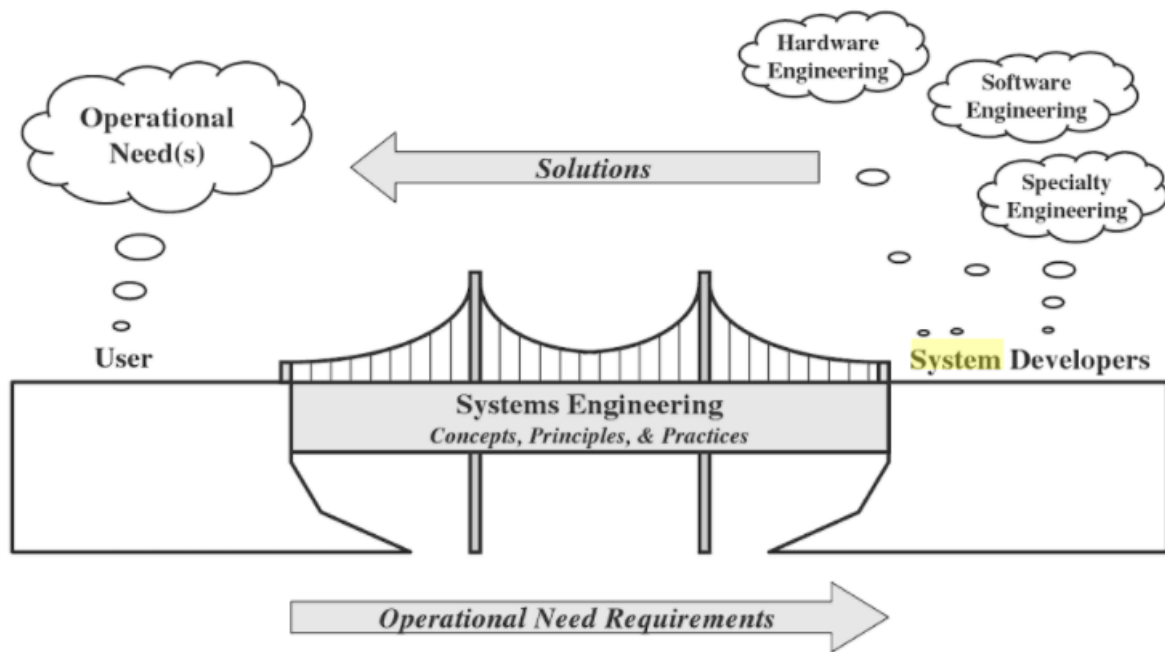


Figure 3: System analysis tasks – Bridging the gap from User Needs to System Developers and other stakeholders

4. System Analysis

Systems Analysis is a term with many different meanings. Basically, it is a set of techniques used widely for management decision-making, planning, and the design of "things" - ranging from military weapons systems to school scheduling.

System analysis is the task act to observation procedure of systems for development the stages of purposes to discover operations then applies procedures for accomplishing them most efficiently [15]. System analysis is applied to information technology IT, that requires defined analysis according to their makeup and design and redesign or recommend changes as necessary [16].

Systems analysts help to evaluate whether a system is viable or efficient within the context of its overall architecture, and help to uncover the options available to the employing business or other party of stakeholders. This requires understanding WHAT systems are; HOW the user envisions (deploying, operating, supporting, and disposing of the system); under WHAT conditions and WHAT outcome(s) they are expected to achieve. So a stronger technical skill is requiring from system analyst set and often involve systems design responsibilities [17].

System analyst is an individual or organization that applies analytical methods and techniques (scientific, mathematical, statistical, financial, political social, cultural, etc.) to provide meaningful data to support informed decision making by mission planners, system operators, and system maintainers [18].

5. Business Process Re-engineering

Business Processing Re-engineering (BPR) is the old concept has been used widely in the industry -marketplace- since 1990s [19]. It is the result of a new process orientation that is trying to overcome some of the problems raised by Taylor's traditional view of structural specialization. BPR stresses the fundamental change of processes concerning different departments within enterprise. However, the re-design of processes is only one aspect of the management of business processes [20] Figure4 retrieved from [21] which shows business process Re-engineering (BPR) believes the radical examination and re-design of business processes, distinguish that the legacy of scientific management has been the excessive fragmentation of work practices in organizations today [22].

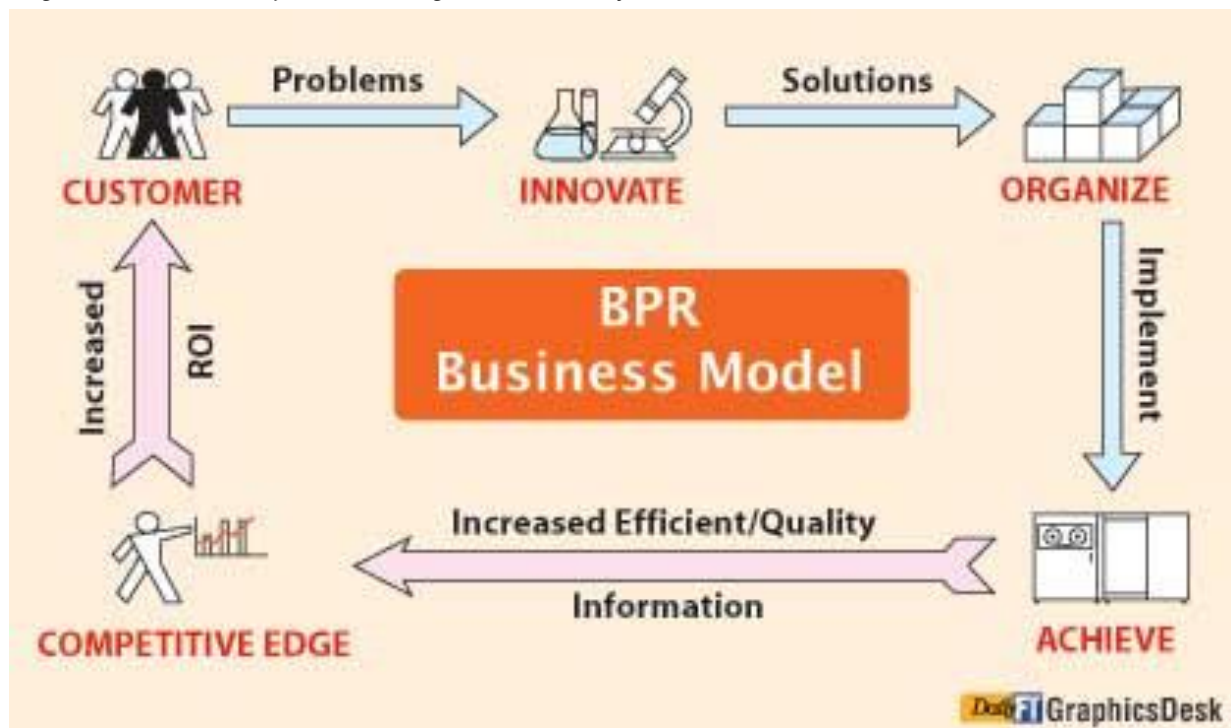


Figure 4: role of business process re-engineering to improve profits

Many organizations in the world are going for Business Process Re-engineering (BPR) to improve profits, to reduce costs, also to improve turnaround times, to improve quality or to provide better service to the customer, etc [23].

There are many steps involved in BPR effort which identify the processes to Re-engineer, Analyze the existing situation, Process Re-design, testing, Re-designed Process Implementation and change Management [24].

6. Optimizing Performances in Small Business

Some of the performance benefits typically targeted by BPM include greater flexibility, increased accuracy, faster execution, cost savings and reduced investment [25]. BPM also takes an end-to-end view of processes across an organization, in particular across functional boundaries [26]. This differs from management approaches that are interested only in activities within functional silos [27].

At the analysis stage, one of the key complexities in suitable design implementation details is needed to understand and assess the current procedures keeping in mind the end goal to control the particular organization that portrays the decision of the level of detail that is appropriate and relevant for the analysis. Another key complexity is the representation of the intrinsic procedure dynamics [28]. Business process management (BPM) is perhaps the "ultra" process improvement technique because it explicitly addresses the complexity of inter-application and cross-repository processes, and incorporates data-driven, as well as, content-driven processes – all on an ongoing basis. [29]. Figure 5 showing the four key types of modeling as complementary to each other rather than as a substitute like piece of puzzle. They are contributing to the value addition of the small business.

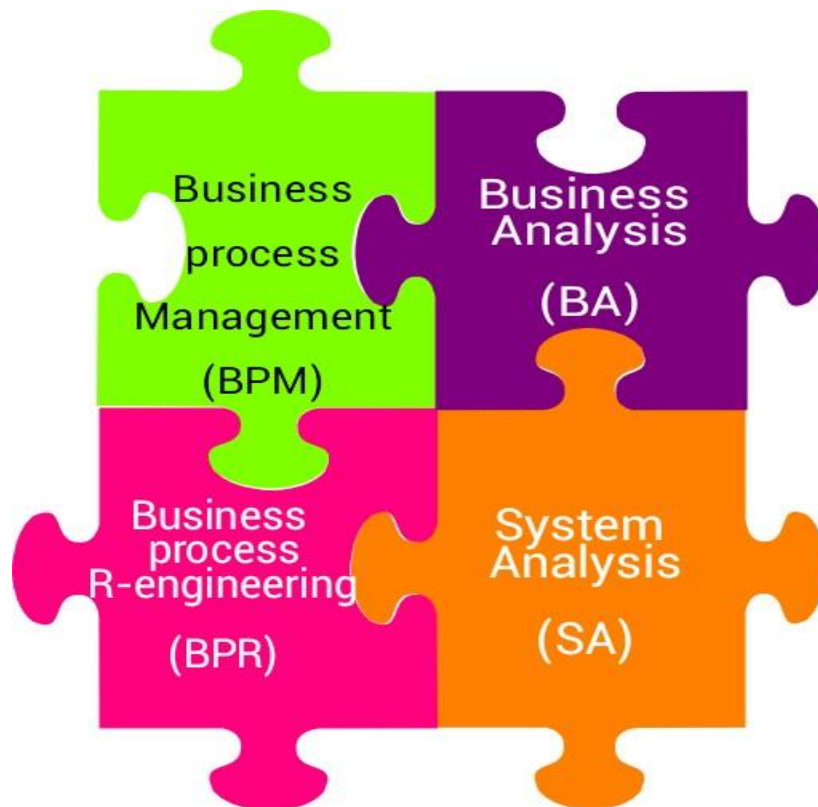


Figure 5: BPM, BA, BPR and SA are complementary each other to build business modeling like puzzle

Both of them have their own benefits and shortcomings. Business process management has ability to visualize a process to procedure its relevant information, in altered perspectives with different measurements. While Business analysis includes observing if the current system is giving proper response and meets the requirement. Moreover, system analyst needs to ensure the accuracy and reliability of the system. In

the same time needs to provide a rough estimation of cost involved [30]. However, the business processes re-engineering is typically a response to either internal within the organization or changes in the business infrastructure.

This article as you have seen, provide different types of business process modeling. A major element of the paper is offers a number of an original contribution to students, academics and practitioners. The paper is valuable for them because its development and provided a comprehensive between the technical concepts. The table below summarizes the differentiated between the technical concepts.

Table 1: Summarizes the differentiated between the four technical concepts

Concept	Definition	Focus	The Roles of IT in it
Business Process management BPM	It is used as an effective methodology to looking at processes and controlling it.	focused on aligning all aspects of an enterprises workflow	IT enables business processes by providing information management, information processing and support them.
Business analysis BA	Gathers and documents the business requirements, provides input information for the SA.	Understanding the existing systems and BP	BA does not need to have an IT background although it can help to have some basic understanding of how IT systems work.
system analysis SA	System analysts write technical requirements from the business requirements.	SA focuses on understanding the business problem and outlining the approach to solve it	Establish the fundamental four-stage systems development life cycle (planning, analysis, design, and implementation) is as the basic framework for the IS development process. SA help organizations to identify and initiate potential projects.
Business Process Reengineering	Fundamental rethinking and radical redesign of business processes to achieve dramatic improvements.	The focus of all the definitions is on achieving significant. Improvements in performance through radical redesign of BP.	Sometimes seen as a tool for automating business process but generally, IT can be an enabler for reengineering by allowing the organization to do BP more efficiently.

7. Conclusion

This article covered the issue of difference between Business Process management, Business analysis, system analysis and Business Process Reengineering of rapidly growing on technology. These concepts are equally important and required to work closely together in order to deliver a set of included small business services to the user community, otherwise the overall technology services will not provide any value to the business unless achieve enterprise's goals. Small business need to take into account the level of detail that will be presented. The four key types of business process modeling considering as complimentary to each other rather than as a substitute like piece of puzzle. They are contributing to the value addition of the small business.

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