

# CHAPTER II

## LITERATURE REVIEW

### 2.1 Business Process Reengineering

Business Process Reengineering (BPR) can be defined as a managerial approach to improving efficiency and effectiveness of business processes that exist within and across organizations (Boar 1993; Hammer 1990; Davenport 1993). In fact, information systems (IS) have historically played an important role in BPR, and are considered by some as major enablers for new forms of working and collaborating within an organization and across organizational borders. This role can be represented as the link between technology and business.

Attaran (2004) has classified the role of IS in BPR projects into three stages: before design process, during design process, and during implementation. On the other hand, the success rate of BPR projects is not satisfactory. Research show that approximately 70% of BPR projects fail and some believe that figure may be even higher (Grant 2002; Bashein et al. 1994; Davenport and Beers 1995).

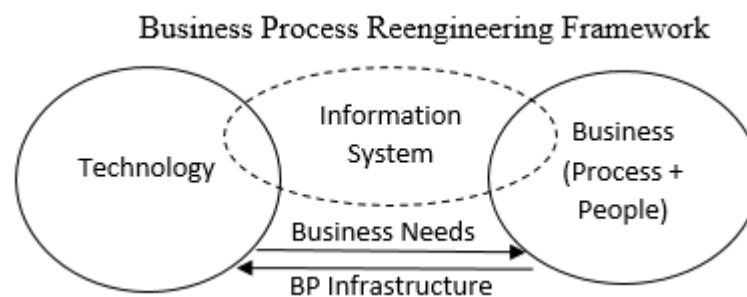


Figure 2. 1 Business Process Reengineering Framework (Hammer M. 1993)

## 2.2 Process Alignment

Process Alignment is developing a common understanding among the key stakeholders of the purpose and goals of the project and the means and methods of accomplishing those goals (Russel W. Darnall and John M. Preston, 2012).

Process alignment is come from Strategic Alignment, which is the process and the result of linking an organization's structure and resources with its strategy and business environment (regulatory, physical, etc.). Strategic alignment enables higher performance by optimizing the contributions of people, processes, and inputs to the realization of measurable objectives and, thus, minimizing waste and misdirection of effort and resources to unintended or unspecified purposes. In the modern, global business environment, strategic alignment should be viewed broadly as encompassing not only the human and other resources within any particular organization but also across organizations with complementary objectives.

“The ability of a company in the perspective of business processes and information systems in achieving competition and ever-changing changes with new, more competitive strategies,” (Heesen, 2012, p. 21-35).

"Each individual and team enforces strategic leadership when they face the challenge that is most relevant to their business and creates the direction, alignment, and commitment necessary to achieve the organization's performance potential." (Dinwoodie, DL, Quinn, L., McGuire, JB, 2014, P. 6-11)

From above statements, it can be concluded that process alignment has 2 variables which they are being assessed to this paper for the improvement of Process Alignment and Information System Platform, namely:

1. Business Process
2. Information System/ Technology

This process alignment covers many subjects that support the scope. They are related to each other as the process is designed globally within the company. Process alignment can be failed if things were designed but not run as proper and communication doesn't run as expected. This combination of process alignment together with technology results ultimate goal of processing reengineering to achieve efficiency and effectiveness by radically thinking existing processes (O'Neill & Sohal, 1999).

### **2.2.1 BPR Methodology**

A company can get competitive advantage if it can improve its customer service or reduce its operating costs. Continuous improvement methodologies like time and motion studies, and the Japanese Kaizen, had done this for years. But reengineering is a methodology for rebuilding the way a company does things – its business processes – from scratch.

In particular, it emphasises removing whole processes that do not deliver value. The result of this radicalism was obvious in hindsight, though not what Hammer and Champy intended. Companies not only reduced the scope of processes and found significant shortcuts; they removed whole cadres of staff who had previously carried out the tasks that were no longer needed.

The two principle effects of the 1990s' obsession with reengineering were substantial layoffs and redundancies (described by the now-infamous euphemism

‘downsizing’) and a bean-feast of highly paid work for armies of recently graduated consulting analysts at all of the big consultancies.

By the end of the 1990s, the reengineering bubble had burst, to be replaced by a second wave of technology enhanced cost-saving under the guise of another three letters acronym (TLA): Enterprise Resource Planning, or ERP.

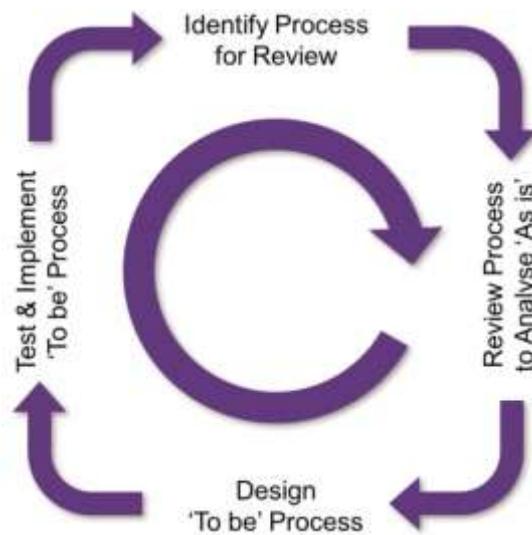


Figure 2. 2 BPR Methodology (Michael Hammer & James Champy, 1993)

### 2.2.1.1 Initiate

Organizations have utilized various techniques in the past to adjust to changing performance requirements. In many cases, these change initiatives have created push-pull conflicts between cost, the quality of service provided, product innovations, and employee involvement (Sharon L. Caudle, 1995).

### **2.2.1.2 Analyse**

The ability to analyse processes and show information flows between phases as well as rates of flows and resources usages, enhancing the clarity of the BPR team's vision, enabling the running of life simulations to discover bottlenecks and constraints, enforcing consistency in analysis and design, facilitating integration with tools that are widely used in designing BPR underlying information systems, permitting iterative and top-down refinement from the BPR project goals to solution and producing an acceptable return on investment (Klein, 1994).

### **2.2.1.3 Design**

Change management, which involves all human- and social-related changes and cultural adjustment techniques needed by management to facilitate the insertion of newly-designed processes and structures into working practice and to deal effectively with resistance, is considered by many researchers to be a crucial component of any BPR efforts (Carr, 1993).

Organisational culture influences the organisation's ability to adapt to change. The existing culture contains beliefs and values that are often no longer appropriate or useful in the re-engineered environment. Therefore, the organisation must understand and conform to the new values, management processes, and the communication styles that are created by the newly-redesigned processes so that a culture which upholds the change is established effectively (Bruss and Roos, 1993).

#### **2.2.1.4 Plan**

Proper planning for the BPR project with adequate time frame are key factors in delivering a successful BPR project on time. Effective use of project management techniques and managing people-related issues (Talwar, 1993) have also a crucial role in smoothing the flow of the process redesign stages.

Successful BPR implementation is highly dependent on an effective BPR programme management which includes adequate strategic alignment, effective planning and project management techniques, identification of performance measures, adequate resources, appropriate use of methodology, external orientation and learning, effective use of consultants, building process vision, effective process redesign, integrating BPR with other improvement techniques, and adequate identification of the BPR value (Zairi and Sinclair, 1995).

#### **2.2.1.5 Develop**

The measurement process may start with a number of policies and goals which are then translated by the IS function into measures by exploiting other techniques such as monitoring, auditing, and benchmarking. A test of developed measures is conducted and a continuous refinement and review are performed continually as strategies change and as the IS function discovers new means for measurement (Earl, 1997).

#### **2.2.1.6 Implement**

Sound management processes ensure that BPR efforts will be implemented in the most effective manner (Bashein et al., 1994). The most noticeable managerial practices that directly influence the success of BPR

implementation are top management support and commitment, championship and sponsorship, and effective management of risks.

BPR implementation involves radical change to several systems in the organisation. Risks associated with acceptance of changes in the organisational structure, deploying emerging ITs with little familiarity, large investment in new resources needed for the new processes, loss of personnel, and loss of earnings (Towers, 1994) are some examples of the many risks that an organisation may take when implementing BPR.

#### **2.2.1.7 Business Transformation**

Business Transformation is a change management strategy which has the aim to align People, Process and Technology initiatives of a company more closely with its business strategy and vision. It is aligned with Satish P. Subramanian (2015) as business transformation architectures provides the foundational platform for transformation by legitimizing the initiative and creating the burning platform to transform. All the six transformation program management dimensions of strategy, people, process, technology, structure, and measurement are taken into consideration in developing the business transformation architecture.

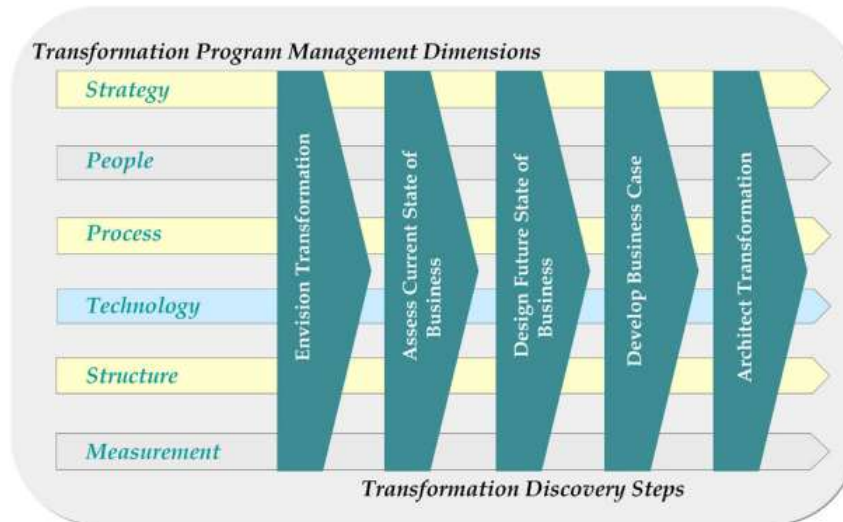


Figure 2. 3 The Business Transformation architecture for transformation discovery steps (Satish P. Subramanian, 2015)

#### 2.2.1.8 Business Transformation Process

Business Transformation Process is an umbrella term that describes the act of radically changing the series of actions required to meet a specific business goal. Business transformation process involves an examination of the steps required to achieve a specific goal in an effort to remove duplicate or unnecessary steps and automate as many actions as possible. Compliance regulations, as well as changes in the economy, often drive business process transformation.

Business process management has been widely recognized as a useful approach for supporting innovation, transformation, organizational development, change management, enterprise architecture, and audit compliance (Zairi, 1997).

#### 2.2.1.9 Project Charter

Project Charter as sometimes called Project Overview Statement (POS), is an overview of the project, a document is officially defined and certify the project. This project charter is made after the project proposal has been approved. Without



project charter, the project objectives will be ambiguous and sometimes not properly understood by the stakeholders (Michael D. Taylor, 2013).

#### **2.2.1.10 Toll Gate**

Tollgate is a measurable objective that is used to enable a prospective customer to pass from one stage to another within the Six Sigma methodology. By establishing the desired level of movement between each of the stages of DMAIC (define, measure, analyse, improve and control), team members can define barriers or gateways that allow the prospect to move to the next step in the process or hold them on a particular level until all desired objectives are completed.

Tollgates or stage gates represent approval points before proceeding to the next stage of program or project development. The PMO will have defined standards and requirements to have been met before approval can be gained to proceed to the next stage and review of the readiness of each project at the “gate” ensures that the basis for additional capital commitments exists (Bob Prieto, 2013).

#### **2.2.1.11 Project Governance**

Project Governance is defined as those aspects of governance related to ensuring the effectiveness of projects. In essence, project governance is about helping to ensure that the right projects are done well. Project governance sits between the Authority’s corporate (or organisational) governance and specific project management regimes.

The management of multiple projects – including programme management and portfolio management – is now the dominant model in many organizations for

strategy implementation, business transformation, continuous improvement and new product development (Winter et al., 2006).

### 1. Management Call to Action

Management Call to Action (MCA) is an action to call all management to be aware of the project and start to involve. The objectives of this MCA are to engage the management successfully, to endure the understanding of the project approach, to identify improvement ambitions and risks, to align business and team expectations and to initiate project resources planning.

### 2. Business Case

Business Case can be defined as a decision support and planning tool that projects the likely financial results and other business consequences of an action or investment. People often use Business Case results to support proposals and arguments. Business Case makes the case for taking action, or choosing one option over another, in business terms. An effective business case gives decision makers understanding and confidence they need to take action.

### 3. Trade Flow

Trade Flow means flow of exports and imports, their components and direction. Trade flow analysis helps to examine pattern of trade, trend of flow, concentration or the extant of diversification and improvement required in particular destinations, value and supply chains.

Trade flow takes processes of product or service, analysis production pattern, growth, potentiality, capacity, costs, value addition, employment

intensity (elasticity), and the comparative advantage. Also it assess product diversification within sectors and export destination, analyse the market potential of the destination market including size of the market, income, disposable income, savings rate, purchasing power, market growth and trend, assess consumer preference , trend and changes, assess market access conditions, including examine tariff and non-tariff barriers, and trade agreements impacting trade flow, assess nature, level of competition, market players, assess information flow, information acquiring by consumers and invest, produce, market and distribute.

#### 4. Budget

A budget is an estimation of the revenue and expenses over a specified future period of time and is compiled and re-evaluated on a periodic basis.

A surplus budget means profits are anticipated, while a balanced budget means that revenues are expected to equal expenses.

A deficit budget means expenses will exceed revenues.

### **2.2.2 Project Implementation**

The value of a project refers to the explicit and implicit functions created by the project, which can satisfy the explicit and implicit needs of stakeholders (Zhai et al., 2009). The concept of creating value starts with the processes needed to encourage innovation and assess the viability of ideas, through to the management of the implementation of the related organizational change.

### 1. Process Alignment Training

Process Alignment Training is a set of trainings that is provided to facilitate the current process to be aligned with the goal.

### 2. Global Process Workshop

Global Process Workshop (GPW) is a set of workshops that help people understand the process that runs within the global policy. The purposes of this workshop are to understand the rollout approach, to get familiar to the process as supported by the technical team solution, to understand which business events are covered by the business scenarios defined by previous clusters, to identify business process differences, to list issues and concerns with implementation of the process in each market and to start identifying local legal requirements.

### 3. Key Data Structure

Key Data Structure(s) (KDS) which are fundamental system settings that describe the organization is ERP. For example, the different legal entities that make up your business or the different warehouses where you store material.

KDS must be defined early as it is the foundation for much of the work that follows. This work that follows is called localisation and is about adapting the ISP solution to the site. KDS defines our business in terms of plants, where the ISP team makes master data (create prices for our sales organization), who has access to what (we can create sales orders in our sales organization only and see stock within the organization only, etc),

how information can be split in reporting (stock per plant, sales per sales organization, etc).

#### 4. Legal Gap Validation

Legal Gap Validation (LGV) is an alignment to close legal gap and validate it that met during GPW to ensure the legal matters can be used and comply in the process and can be run in the tool.

#### 5. Scope Control Management

Scope Control Management (SCM) is the way to manage and control the changes to the project scope. And in PMBOK3, p. 119, naturally the project management has to manage scope changes, too. The world is a collection of changes. Therefore, changes are allowed. But they must be integrated into the existing project scope statement by referring to a defined change process. Undocumented 'by the way'-changes are not state of the art. Hence scope control is both: avoiding of "unaccepted" new work packages and integrating "accepted" new work packages into the project scope statement and/or into the WBS.

#### 6. ISP Training

According to Ralph D. in a journal entitled An Employment-Oriented Definition of Information Systems Sector: Educator's View (2008, p64), "Information systems as a subset of work systems where people and/ or machines process and activity to produce products and/ or services for internal or external customers".

In this information system training, it covers 3 items as the beginning for Super User acknowledge new system become familiar. The first one

was Mobilisation, as it is important for site to get live experiences with the ERP to be able to provide qualified input on how the site should configure the system. The whole exercise is very much like going to a PC showroom and having a guided hands-on with the new PC that is going to buy – what are the standard features vis-à-vis options that are configurable. It will be guided to step-by-step from login to posting the first ERP invoice using the global solution. This will help the site connect with the big picture – how the various system steps support the global process and the associated business roles.

Then it went to Localisation, where site would be asked questions related to the configurable options available (e.g. number of shipping routes) in global solution. In PC analogy, this would be like the PC salesman asking us to decide on the configurations of the PC, such as memory size, colour, etc. These questions form part of the localisation questionnaire that would be completed by site in the following 3-4 weeks.

Finally, in Data Introduction, the data conversion approach and data templates used to collect site's master data is introduced. Examples of data templates are material data, sales prices, profit centres. It is crucial to have good understanding of the templates - this will ensure good quality and reduce errors during data conversion. As the saying goes: "garbage in, garbage out" so it is in the ambition to get this right from the start. To ensure participants' new knowledge is cemented, there will be session asking data providers to fill in some sample data which will be reviewed by ISP team to ensure it on the right track.

## 7. Data Conversion

According to Connolly and Begg (2010, p65), the Database is a collection of logical relationships of data (and data descriptions) that can be shared and created to obtain information required by the firm. A database is a logical data relation consisting of entities, attributes, and relationships of organizational information. The usefulness of the database is:

1. Eliminate redundancy data.
2. Limitations of data access.
3. Improve security.
4. Multiple Users.
5. Independence of data (freedom of data).

Data Conversion is the process of extracting data from one structured system and uploading it to another system, after validation of scope and quality. Some manipulation or translation is nearly always needed to “mould” the data in the format the new system accepts.

In PrISP at TPSE, our main source is legacy system, but there’s Vault, lists in Excel or even experience in the brains of colleagues. The tools we use to manipulate/ translate the data is mostly Microsoft Excel and the target system is obviously future ERP system.

## 8. Organizational Alignment Workshop

The most critical element in any strategy is its translation into reality. The only true measure of success is in its execution. And one of the key determinants of successful strategy implementation is organizational

alignment, according to Torben Rick (2014). The workshop will then direct people to determine the implementation strategy to be delivered and confirmed by the management that consists of design and decide, build competence, implement changes to map end user to role & briefing.

#### 9. User Acceptance Test

User Acceptance Testing (UAT) is the first time Super User will have a chance to see it all come together. Super User will be running real business flows in the ME1 system (copy of PE1) using own Master Data, which is why it's sometimes referred to as our 'little Go-Live'.

All the work from the start of the project (Identifying Business Issues, ISP Issues, Master Data Cleaning & Preparation, Super User Course Workshop) has led to this important exercise. During the period, the Super Users will be executing a set of test scripts which detail specific steps for execution in ERP. These scripts are written by the GIM team based on an agreed test scope from the Local Process Drivers (LPD).

#### 10. Super User Course Workshop/ Training

According to Bernardin and Russell (1998:172), training is defined as any attempt to improve employee performance on a currently held job or one related to it. This usually means changes in specific knowledges, skills, attitudes, or behaviours. To be effective, training should involve a learning experience, be a planned organizational activity, and be designed in response to identified needs.



Super user course workshop's objective is to train and develop these selected individuals in detail within ERP systems according to their Super User Profile and based on the business scenarios after go-live.

#### 11. Organizational Alignment Confirmation Workshop

To confirm the decision/ sign off from the setup of organizational alignment.

#### 12. Process Role Validation Workshop

Process Role Validation (PRV) Workshop is defined as the set of collection and evaluation of people role and process alignment which establishes scientific evidence that a process is capable of consistently delivering quality of the process and the people.

#### 13. Global Business Role

The PRV workshop is the kick off linking job position to virtual role (called GBR/ Global Business Role). The GBR consist of transactions codes that gives the user access to perform their daily job task in the future system. The PRV workshop is ensuring that the organization get the right understanding about the GBR and insight to Segregation of Duties (SoD) where the Local Security Administrator (LSA) will play an important role in supporting the LPD and Line Mangers in their work to map the people to a GBR. The ambition with the PRV workshop is that the site should be confident in mapping people to their specific roles in the process flows and manage SoD.

When the job positions are mapped to a GBR, it is time for the Line Managers and LPD to map the respective organization to a GBR, then the

Training Manager together with Super Users will plan and deliver training to all to ensure the right knowledge is established at the Go Live.

#### 14. Validation of Mapping and Segregation of Duties (SoD) Check

This validation of mapping and segregation of duty check is to map Super User's "own" several GBRs. End Users will be mapped to GBRs in Role and Course Mapping.

SoD is an internal control designed to prevent error and fraud by ensuring that at least two individuals are responsible for the separate parts of any task.

According to Ernst and Young (EY) in A risk-based approach to SoD, it involves breaking down tasks that might reasonably be completed by a single individual into multiple tasks so that no one person is solely in control. Payroll management, for example, is an administrative area in which both fraud and error are risks. A common SoD for payroll is to have one employee responsible for the accounting portion of the job and someone else responsible for signing the checks.

Although it improves security, breaking tasks down into separate components can negatively impact business efficiency and increase costs, complexity and staffing requirements. For that reason, most organizations apply SoD to only the most vulnerable and the most mission critical elements of the business.

SoD is top of mind for many professionals, from compliance managers to executive-level officers. The increased interest in SoD is due, in part, to control-driven regulations worldwide and the executive-level

accountability for their successful implementation. However, the underlying reason for these regulations is more important: no individual should have excessive system access that enables them to execute transactions across an entire business process without checks and balances. Allowing this kind of access represents a very real risk to the business, and managing that risk in a pragmatic, effective way is more difficult than it seems.

#### 15. End User Training

According to Bernardin and Russell (1998:172), training is defined as any attempt to improve employee performance on a currently held job or one related to it. This usually means changes in specific knowledges, skills, attitudes, or behaviours. To be effective, training should involve a learning experience, be a planned organizational activity, and be designed in response to identified needs.

End-user training (EUT) is often one of the most neglected aspects of a new IT solution roll-out. However, it is the key to the successful adoption of any new system. One of the biggest problems is self-inflicted by management when insufficient funding is made available for end-user training purposes. The result is that end-users are poorly trained, or not at all, and the expected return on investment (ROI) takes longer to realise. Another consequence of insufficient training is that the new software solution will be shunned by the same group of users that it was supposed to help.

## 16. Cut Over

The Process of transitioning from one system to a new one. It starts with compilation of open legacy transaction combined with master data loaded into new system.

In project lingo, cut-over (CO) is the activity where all open transactions in the “old” system are carried over to the “new” system. Examples of such transactions include open purchase orders, open production orders, unpaid invoices to vendors, non-completed projects (even if only warranty is still open), customer payables, down payments and of course the balance sheet opening balances.

Since this is a one-time, non-value-adding activity, project team and business need to focus on risk and cost, because a successful CO is still the prime requirement for go-live.

## 17. Go-Live

Go-Live is the time at which something becomes available for use. In software development, for example, Go-Live is the point at which code moves from the test environment to the production environment. As an action statement, Go-Live means to make the event happen.

At the time of the Go-Live, a new system becomes formally available to users who can then initiate transactions in it. In enterprise circles, the term Go-Live is particularly associated with systems that help manage business functions such as ERP.

The Go-Live of a fundamental business change project such as our PrISP project is the culmination of months - years - of groundwork,

project planning, preparation, execution, monitoring and controls involving our company's internal and external stakeholders. An unsuccessful Go-Live would cost TPSE hundreds of thousands of dollars and could provoke a cascade of business problems.

#### 18. Hyper Care

Hyper Care is the stabilization period after Go-live which focuses on customer support, data integrity, and system availability. The Hyper Care team is a group who will provide technical support to national, state, and county office employees. In order to resolve issues, the Hyper Care team will leverage program knowledge and experience from the Business Process Functional team, Technical, and Security teams. The intersection of various teams supporting Hyper Care aims to ensure that all questions and issues are resolved in a timely and effective manner.

Hyper Care is not a substitute for training; rather Hyper Care will aid users in technical issue resolution and questions regarding how to use the system. Post training, if an end-user has a question regarding the system they would leverage the processes, such as using the context sensitive help within the system to aid in answering on-the-spot questions. Additional support can be found in the web-based training courses. These courses include step-by-step system process simulations that can be reviewed as needed.

It is important to log tickets and use the hyper care resources to resolve any issues. Using the hyper care processes in place, the team will be able to gauge what is working in the field. The Hyper Care team is

working hard to ensure that the solution will enable all end-users to utilize it efficiently.

#### 19. Master Data Management

Master Data Management (MDM) is a comprehensive method of enabling an enterprise to link all its critical data to one file, called a master file, that provides a common point of reference. When properly done, MDM streamlines data sharing among personnel and departments. In addition, MDM can facilitate computing in multiple system architectures, platforms and applications.

Master data alignment starts with MDM introduction, an introduction to an MDM within a team to aware of the activity of MDM. It consists of the definition of what MDM is, how to manage master data, what is the organizational requirement, how is master data flow and master data flow. When stakeholders are ready, it goes to MDM workshop, a workshop that is held to cover such activities: understand requirement on high level MDM organization, decision on high level MDM and high-level MDM workflow and mandate of defining the detailed MDM organization and MDM workflow. When everyone understands, it is planned to the implementation of MDM within local scope from the guidance of global and is set up the web for the use of local MDM. Finally, local MDM web is trained within MDM organization.

## **2.3 The relationship between Business Process, Information System and the Leadership**

Business process relationships, information systems can be seen from some previous studies that have been done.

### **2.3.1 Business process**

In running an organization, business processes serve as guidelines for all members of the organization. The business process is divided into 3 propositions: value proposition, profit proposition and employee proposition (Kim, W., Mauborgne, R., 2009). From each of these propositions, developed into concepts and dimensions involved.

Value propositions are viewed from the point of view of customer needs, in how the company can understand, design, serve and provide support to its customers (Lindic, J., & Marques, D. S, 2001). To be more specific from the process there are differences made by the company, can be done by B to B or B to C. The size of each proposition is the needs and expectations of customers (Payne, A., & Frow, P., 2014).

The profit proposition is viewed from the customer's point of view. The main concept of profit proposition is price. The company must provide reasonable price to the customer. So, the customer can make payments on time and they are happy with the services provided. Customers will provide reciprocity in the form of customer satisfaction to the company itself and other companies (Emerald Group, 2013).

Employee propositions are viewed from the company's point of view. This is the most important thing in maintaining employee motivation. Because the results

of all business processes will not run without any employees running it. Employee motivation is seen from the dimensions of income level and the level of happiness doing work (Birkinshaw, J., Foss, N. J., & Lindenberg, S, 2014).

### **2.3.2 Information Systems**

Information Systems viewed from the point of view of the company with reference to the concept of how reliable a system created can run existing business processes. Reliability in the analysis of all information is a major indicator, both hardware and software used. Reliability in data analysis includes communication, competency, governance, partnership, and scope and architecture. The information system created must have a correspondence between the system and the procedures defined in the running of the company, supporting interaction between employees and one-way processes and avoiding repetition of processes (Khaiata, M., & Zualkernan, I. A.).

### **2.3.3 Leadership**

Leadership is complex in the organization. Because it is related to what capabilities the organization will need to be successful in the future. What strategies must exist to ensure the organization to have the leaders needed effectively to navigate the complex challenges. For that we need to see some sub-variable in leadership, that are:

1. what is the driving force in leadership
2. how to culture leadership
3. the presence or absence of a talent system



4. how the design of the organization (Smith, R., & Campbell, M., 2010 p.22-30).

The concept to be seen is that leaders can become drivers in the development of the international market, driving in the development of portfolios in the supply of goods and services, being able to acquire new business, and commitment to improving organizational performance (Dinwoodie, DL, Quinn, L., McGuire, JB, 2014, p. 6-11).

## **2.4 Data Collection Source Theory**

### **2.4.1 Questionnaire**

Process variable is based on Business Process Management: A boundaryless approach to modern competitiveness (Zairi, M, 1997). People variable is based on translating reengineering into bottom-line results Industrial Engineering (Berrington C., Oblich R., 1995) and Readiness and Culture: Don't Reengineer Without Considering Them Inform (Bruss L. Roos H. Operations, 1993). Tools variable is based on the implications for information technology infrastructure for business process redesign (Broadbent, M., Weill, P. and St Clair, D., 1999). Performance variable is based on Re-engineering Work: Don't Automate, Obliterate. Harvard Business Review (Hammer, M., July - August 1990). Team variable is based on BPR, all people must be openly and actively involved (Berrington and Oblich 1995).

### **2.4.2 Interview**

All variable questions were taken from Business Process Management Maturity (BPPM) Capabilities Areas & Description, Practical Guidelines to Successful Implementations book of John Jeston, Johan Nelis Business Process Management. The areas reflect the average perceived importance weighting assigned by the experts participating in the Delphi study that modified the contents for interview purpose at TPSE.

## **2.5 Research Related to Business Process Reengineering**

### **Table List**

Table 2. 1 Research Related to BPR Table List (Continued)

Author, Title & Year	Purpose	Method	Findings	Value
<p>Dr. Ramdas S. Wanare, Amar R. Mudiraj (July 2014). “Study on Business Process Reengineering (BPR) and Its Importance in ERP Implementation”, International Journal of Research in Computer and Communication Technology, Vol. 3, Issue: 7, pp. 715 – 719.</p>	<p>It stresses the BPR process and its significance in the ERP implementation in the organization. It also tells the different phase of the BPR process to describe the micro level view for the BPR process. With the same research paper, the author would like to list out factors which are affecting on the BPR process and all the listed issues are get separated into different feature of the organization like Managerial, Operational, Technical and Financial aspects.</p>	<p>BPR Implementation model.</p>	<p>Most of the industries struggle to steady their business as much as automatic at the level of functioning environment. The ERP is the one of the automatic solution, that provides lend a hand to the organization to accomplish this need. Although the ERP implementation is the enormous, expensive and time-consuming process, the organizations still wish for put the ERP into practice for their betterment. The triumph for the ERP implementation is constantly depends upon the Planning. Most of the ERP Implementations are unsuccessful only</p>	<p>As the BPR process is time consuming and costly process most of the organization goes for it. This research also summarized the BPR process step by step. By listing and elaborating the factors affecting on the BPR process the study also gives the idea to consider the different areas to the organization those planned to go for the BPR process before ERP implementation in their organization. Dividing the factors in the four different categories gives the idea to the development team of the BPR process to focus on the crucial areas in organizational</p>

Table 2. 1 Research Related to BPR Table List (Continued)

Author, Title & Year	Purpose	Method	Findings	Value
			because poor planning. The Business Process Reengineering (BPR) is the early-bird stage procedure for identifying and investigates the organizational demand for the ERP implementation.	category during the implementation of BPR process.
Chandrashekhar S. Joshi & P.G. Dangwal (2012), "Management of business process reengineering projects: a case study", Journal of Project, Program & Portfolio Management, Vol. 3, No. 1, pp. 78 – 89.	This paper aims to identify and emphasise the critical success factors for the implementation of a BPR project.	Project Management Book of Knowledge (PMBOK).	Business process reengineering (BPR) projects are undertaken by outward-looking companies that are looking for significant change in their performance and wanting radical changes in the chosen parameters. Generally, these companies are trendsetters in their respective industries. BPR projects take longer	despite customer focus being seen as a key success factor, the primary uses of BPR were directly aimed at benefitting the organisation, assuming that customers and other stakeholders may also gain from improved performance result. There was a shared determination not to stop after succeeding but to go on to the next step,

Table 2. 1 Research Related to BPR Table List (Continued)

Author, Title & Year	Purpose	Method	Findings	Value
			time for completion and may require significant capital inflows as well.	mainly defined by continuous improvement. A greater focus on working and learning at the expense of a preoccupation with cost and time could increase the strategic impact of BPR projects. 86 The critical success factors revealed by this case study have been found to agree with most of the published BPR theory. However, these are not golden rules and it must be stressed that reengineering is about innovation and radical changes. It is anticipated that organisations will find ways to improve on the BPR process and the

Table 2. 1 Research Related to BPR Table List (Continued)

Author, Title & Year	Purpose	Method	Findings	Value
				learning process will continue. The crux of BPR lies in change, change and change again as it pays to improve. BPR managers need to be wary of seeking instant results. In their over-enthusiasm to achieve quick breakthroughs, they may jeopardise the success of well conceptualised BPR projects.
Gholamreza Jamali, Mohammad Ali Abbaszadeh, Mehran Ebrahimi, and Tahereh Maleki (2011), "Business Process Reengineering Implementation: Developing a Causal Model of Critical Success Factors", international	Business Process Reengineering (BPR) has become a popular managerial tool to deal with dramatic technological and business changes in today's competitive environment. BPR help organizations to throw away their old-fashioned processes to	DEMATEL methodology, a comprehensive method developed by the Science and Human Affairs Program of the Battelle Memorial Institute of Geneva is a tool that meets the objective of understanding the causal relationships among elements. DEMATEL allows	<ul style="list-style-type: none"> <li>- To identify CSFs for BPR implementation in Iranian SMEs;</li> <li>- To find out the relationships between CSFs;</li> <li>- To develop a causal model of CSFs in BPR implementation;</li> <li>- To categorize the</li> </ul>	An increasing number of Iranian SMEs attempt to implement BPR to achieve its benefits. In this paper we applied a DEMATEL methodology to better understand the CSFs. This paper identified 7 CSFs and developed a

Table 2. 1 Research Related to BPR Table List (Continued)

Author, Title & Year	Purpose	Method	Findings	Value
Journal of e-Education, e-Business, e-Management and e-Learning, Vol. 1, No. 5, pp. 354 – 359.	achieve new heights of success. However, BPR implementation is a difficult task. Literature indicates that many organizations have failed to achieve the expected results. The present study attempts to throw more light to the subject. Through a comprehensive review of literature, critical success factors (CSF) that influence the success of BPR programs are identified.	researchers and managers to gain a deeper understanding of the relationships among variables. It has been successfully applied in different fields.	<p>identified CSFs into driver and dependent groups;</p> <ul style="list-style-type: none"> <li>- To contribute to the development of BRP theory by investigation of the causal relationships between the identified CSFs; and</li> <li>- To provide insights for managers aimed at BRP implementation.</li> </ul>	causal model of them, which indicates the inter-relationships between these CSFs. The identified CSFs also classified into two groups of driver and dependent factors. From the values of (D – R), it is observed that four factors namely “top management commitment”, “IT infrastructure”, “training” and “adequate financial resources” are driver, while the other CSFs are dependent. Therefore, these four CSFs play a main role in BPR implementation. The finding of this paper can be used as guideline for managers to

Table 2. 1 Research Related to BPR Table List (Continued)

Author, Title & Year	Purpose	Method	Findings	Value
				concentrate on the most influential factors. It is hoped that the findings of the study and the developed causal model offer insights to help managers effectively involve in BPR implementation projects.