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Business Process Re-engineering

1. Overview of Business Process Reengineering

1.1 What is BPR?

The concept and processes of business process reengineering (BPR) is sometimes referred to as business process redesign. Several intensive books and articles cover the energetic ideas that describe the value of a complete makeover.

The publication of Hammer and Champy's Reengineering the Corporation: A Manifesto for Business Revolution (1993) offered a resource to companies or individuals interested in understanding BPR, its history and goals. Defined as "the fundamental rethinking and radical redesign of business processes", it seeks powerful improvements in performance measures in areas such as quality, cost, speed and service. In the same year, Davenport detailed steps for properly analysing and designing processes and workflows within and between organisations.

Michael Hammer :

Michael Hammer, besides being one of the founders of BPR, he is also the president of Hammer and Co., a management education company. Hammer started out as an engineer and was a professor at MIT in the computer science department. Both TIME (1996) and Business Week (2002) listed Hammer as one of the Top 25 most influential businessmen of all times.



Figure 1: Michael Hammer, one of BPR founders

Source:

<http://www.slideshare.net/abhisheka9bhalerao/bpr-ppt-26748848>

Rather than looking at business activities as a group of functional or individual tasks, BPR breaks them into processes resulting in the greatest value to the service and manufacturing environment. Redesigning and managing business activity is achieved by concentrating on processes instead of functions.

This visionary concept identified three central tenets:

1. The assumption of challenge to create radical change.
2. Organisational restructuring and process/goal orientation.
3. Exploitation of information technology and other enabling techniques.

Organisational processes are analysed while focusing on business objectives. Non-essential and outmoded procedures are eliminated. IT redesigns each process by streamlining how it works, putting aside tradition and outdated policies. Radical change permits the changes needed in customer service and competition that results in a competitive ability in the global marketplace.

1.2 When to BPR?

According to Hammer & Champy, there are 3 forces driving companies towards BPR:

- a. Customers: who are becoming more demanding
- b. Competition: is becoming more intensified and difficult to predict
- c. Change: in technology and the pressure to keep up, to improve, to design new products faster

1.3 What should be re-engineered?

Formal processes (not organisations) guided by written policies based on outdated assumptions, involving many different departments/functions and many employees are prime candidates for BPR. Consider processes that are either broken/fragmented or inefficient, have the greatest impact on customers and have the greatest chance of being successfully re-engineered.

2. Objectives, Methodology & Best Practices

2.1 These are some of the more common goals of BPR.

1. Speed- enables tasks within key business processes to be completed in a much shorter time. Average process cycle time, for example, can be cut by 50% or more, down to 30 minutes from a pre-BPR time of five hours.
2. Customer focus – Reduce or eliminate customer complaints by orienting processes that focus on customer service.
3. Productivity - improves efficiency and effectiveness.
4. Quality – Quality is emphasized by providing superior customer value and service. It does not rely on the individual providing service to the customer, but by standards that monitor and control the delivered process.
5. Flexibility – Closer relationships with and focus on customers let the company develop awareness mechanisms to quickly detect weak points. The use of adaptive structures and processes provide the flexibility to adapt to changing conditions, competition, and new market requirements.
6. Compression – Cut major tasks of capital and cost within the value chain. That step brings transparency to the costs of operational levels. Cross-functional teams observe the checks to optimize decision making practices while cutting operational costs.

8. Principles of BPR – the seven principles of BPR provide the fundamental goals of BPR. See Figure 2 below.

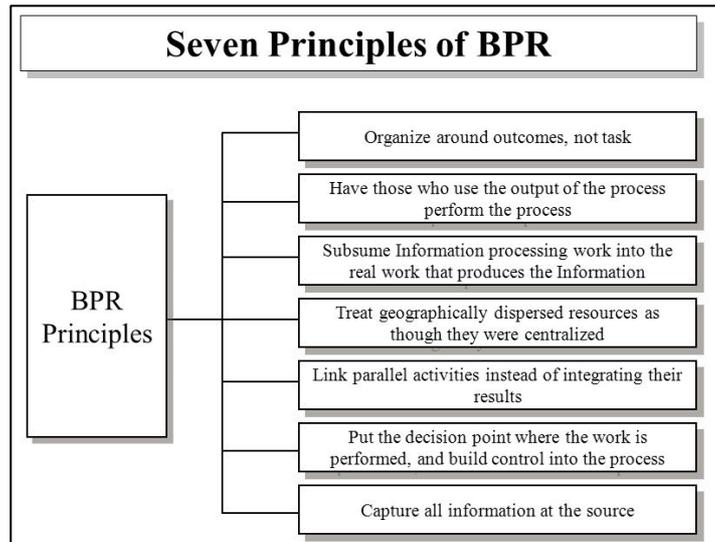


Figure 2: Figure 2: Seven Principles of BPR

Source: Postech Strategic Management of Information Systems LAB
<http://slideplayer.com/slide/7234398/>

2.2 Benefits and Implications of Business Process Reengineering

Organisations and businesses review the following “3Rs” to validate the drastic changes in BPR:

1. Re-design, bringing measures together through empowering, groupware, simplification, measurements, and employee-ship, with a focus on standardisation.
2. Re-tool addresses workflow, intranets, networks, and extranets.
3. Re-orchestrate to synchronize human resources, IT, and processes.

The 3Rs achieve the creation of a new enterprise by significantly changing every area of an employee’s work life. It is important to create new processes instead of fixing current ones used in your business structure, people, processes, and technology.

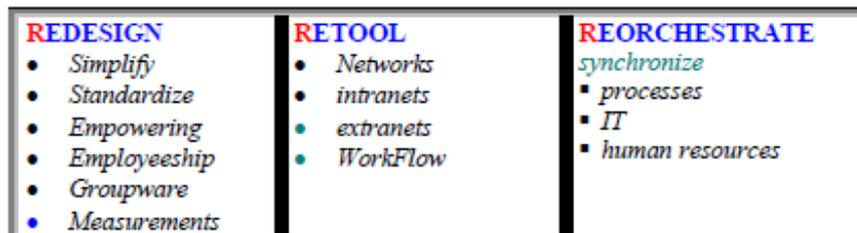


Figure 3: The 3Rs of Re-engineering

Source: http://www.adi.pt/docs/innoregio_bpr-en.pdf

1. Compensation for skill and time spent to compensation for results.
2. Functional departments to process teams.
3. Employee training to employee education.
4. Advancement due to ability becomes advancement due to performance
5. Supervision and control by managers becomes an environment where managers advise and coach.

Changes in the World of Work	
From Conventional	To BPR
Functional departments	Process Teams
Simple tasks (division of labor)	Empowered employees
Controlled people (by management)	Multidimensional work
Training of employees	Education of employees
Compensation for skill and time spent	Compensation for results
Pay raises based on promotions and seniority	Low pay plus high performance-related bonuses
Advancement based on ability	Advancement based on performance
Protective organizational culture	Productive organizational structure
Managers supervise and control	Managers coach and advise
Hierarchical organizational structure	Horizontal (flat) structure
Executives as scorekeepers	Executives as leaders
Separation of duties and functions	Cross-functional teams
Linear and sequential processes	Parallel process
Mass production	Mass customization

SOURCE: Based on Hammer and Champy, 1993.

Figure 4: Comparison of Conventional Functions to BPR
Source: http://www.adi.pt/docs/innoregio_bpr-en.pdf

Instead of separation of duties and functions, the business has cross-functional teams.

Reengineering and its Relationships to Other Improvement Programs (II)					
	<i>Rightsizing</i>	<i>Restructuring</i>	<i>Automation</i>	<i>TQM</i>	<i>Reengineering</i>
<i>Assumptions questioned</i>	Staffing	Reporting relationships	Technology applications	Customer needs	Fundamental
<i>Focus of change</i>	Staffing, job responsibilities	Organization	Systems	Bottom-up improvements	Radical changes
<i>Orientation</i>	Functional	Functional	Procedures	Processes	Processes
<i>Role of IT</i>	Often blamed	Occasionally emphasized	To speed up existing systems	Incidental	Key
<i>Improvement goals</i>	Usually incremental	Usually incremental	Incremental	Incremental	Dramatic and significant
<i>Frequency</i>	Usually one time	Usually one time	Periodic	Continuous	Usually one time

Figure 5: BPR vs Other Improvement Programmes
Source: <http://www.albany.edu/acc/courses/acc630.fall2006/ch02.ppt>

1. Use outcomes as the basis for redesign rather than tasks. List current practices and their effect on your business. Analyse the processes of successful and unsuccessful competitors to establish desirable changes.
2. Identify every organisational process. Prioritize and implement change according to redesign urgency.
3. Analyse real work and use the information to bring about integration of changes in everyday operations. Confirm approval and accessibility to initial project resources.
4. Address geographically dispersed resources like they are centralized features. Measure and validate the process to determine objectives and readiness for successful change.
5. Parallel workflow activities should be linked rather than integrating the results.
6. Establish the decision point where the work is performed. Build control into the process. Maximise participation in workshops and brainstorming sessions to get useful feedback and ideas.
7. Capture information at the source to facilitate thorough planning for change. Communicate changes and activate them.

Another version of a BPR methodology is shown in Figure 6.

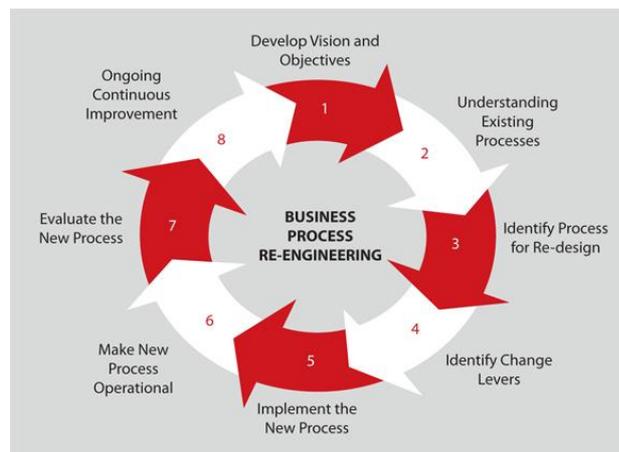


Figure 6: Another version of a BPR methodology

Source: http://www.ftias.com/business-process-reengineering/#.WAXsC_I97IU

2.4 Practices

BPR encompasses changes that may be industry or organisation specific. Best practices include:

1. Business process behaviour/operations - focus on the workflow execution and implementation.
2. Organisation – evaluates structure, such as resource allocation, and the amount/type of resources involved.
3. Information – describes information used or created for business processes.

- External environment – determines ways to improve communication and collaboration with third parties.

Honor corporate culture and create teams comprising managers and employees who do the work in question. The entire organisation must buy into the change and work to make it happen. Outside consultants are valuable, but cannot force the acceptance of BPR.

Restructure supports front-line performance. Strategic planning addresses IT's ability to be leveraged as a competitive tool. IT gives managers the ability to collect, store, and analyse information with more accuracy. Even though it is only part of the BPR goal, it increases the ability to distribute information and communicate with others. External or internal IT experts significantly help recognize important changes and situations because of their:

- Knowledge
- Experience
- Skills
- Wisdom

The customer is the central figure in reengineering. Concentrate on eliminating fragmented processes that cause delays or result in ineffective, negative customer service.

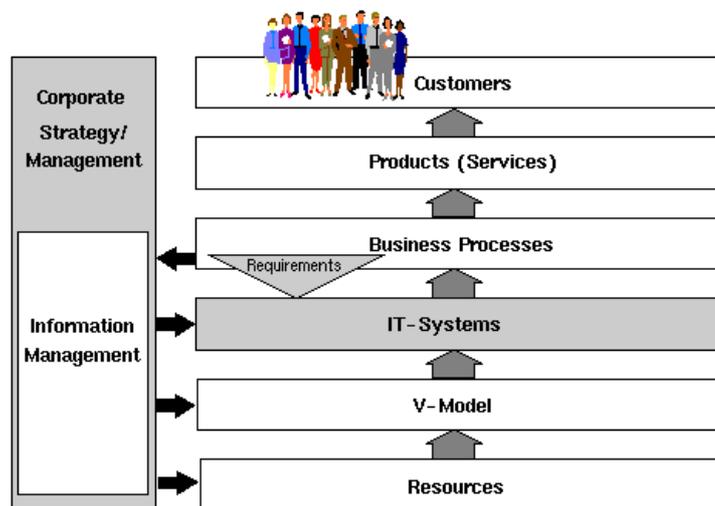


Figure 7: Customer-driven processes

Source: <http://www.informatik.uni-bremen.de/gdpa/part3/p3gpo.htm>

3. Obtaining and Sustaining Success

Senior management plays a crucial role in the ability of a business to achieve and strengthen the reengineering process. An organisation with strong executive leaders who lead by example and demonstrate commitment and understanding throughout every step enhance the likelihood of BPR success.

Use reengineering to grow business instead of randomly cutting costs to save money. Offer quality goods and services to the most important asset: your customers. Putting customers first builds business, resulting in additional work and revenue. Success factors include dedicated culture, management, and the IT infrastructure, all having influence the workforce, competitors, and customers.

Target business goals. Your platform should address the unique needs of your organisation, such as:

- Accomplishments delivered by your newly developed platform.
- Necessary data and its ability to be used so goals are achieved.
- Sufficient planning for conversion.
- Ability to determine reserved tasks for human resources rather than automated processes.



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Sustain success by regularly addressing and answering the following questions:

- Which processes impact company customers the most?
- What processes are in the most trouble because they are fragmented or outdated?
- Which inefficient or broken processes can be successfully reengineered at this time?

Initial BPR benefits typically continue to thrive when companies select and follow process governance suitable for its new process orientation. It relies on identification and empowerment of the functional managers or business unit who inspire processes revitalization through leadership.

Case Study

Case Study (Local): Local – Singapore Case: A Three-Pronged Approach to Business Process Reengineering

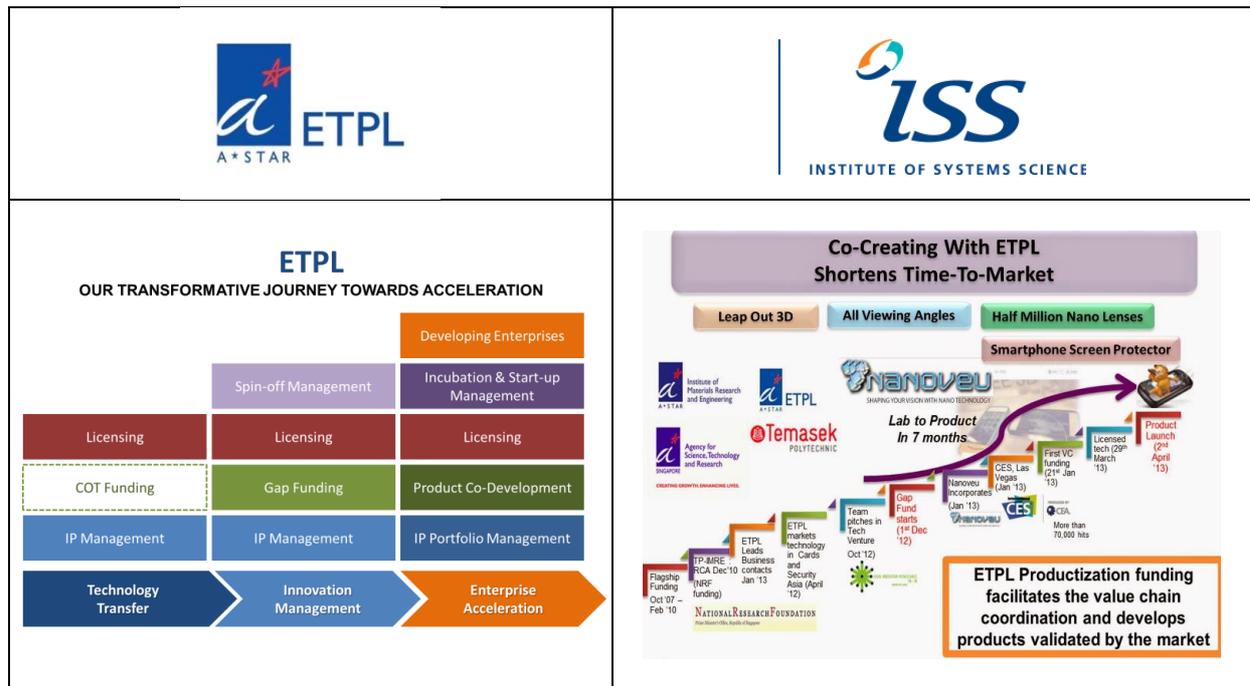


Figure 8: ETPL BPR Journey

Source: <http://taihou-exploits.blogspot.sg/2014/04/etpl-productization-shortens-time-to.html>

ETPL (Exploit Technologies Pte Ltd), the Singapore technology transfer arm of A*STAR (Agency for Science, Technology and Research), recently evaluated the technology disclosures from the 21 research institutions in A*STAR's group. The process typically looks at the best way to protect and secure:

- Disclosed intellectual property.
- Follow-up on patent management.
- The intellectual property's lifecycle.

In addition, ETPL follows the company's commercialization of intellectual property, including transfer of technologies to the industry with licenses. By early 2014, ETPL realized increased research output and licensing deals required significant changes in their business processes in order to continue providing quality service and customer support. They engaged NUS-ISS to be part of their BPR programme in March 2014 as they pursued the objective of increasing productivity and doing it faster and better without an increase in personnel.

The end-to-end mapping out processes for IP Management and Commercialisation required approximately six months. A three-pronged approach was used to assess and determine how to streamline the processes, resulting in the following perspectives.

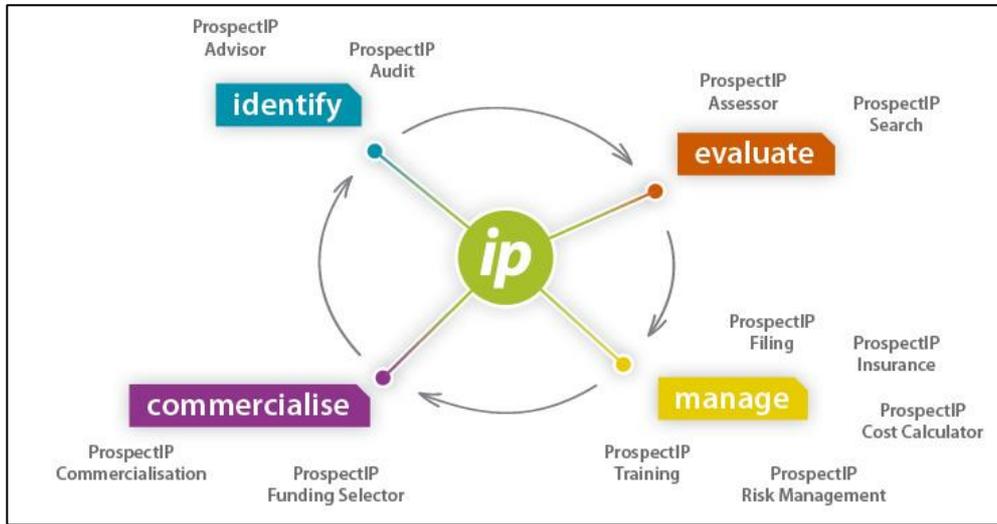


Figure 9: IP Management Processes

Source: <http://www.prospectip.com/services/innovation-process.htm>

A three pronged approach to BPR, focusing on people, process and technology was adopted.

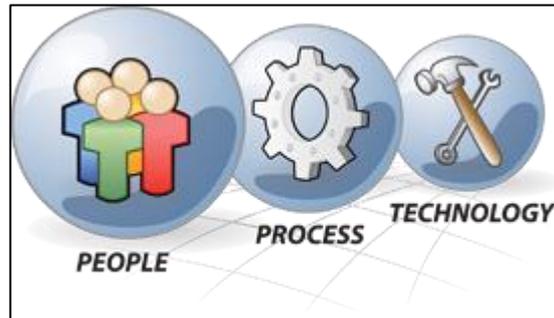


Figure 10: People, Process & Technology – The key ingredients for BPR

Source: <http://www.wysiwygventures.com/enterprise-change-must-follow-people-process-technology/>

Process: Identified all bottlenecks, non-value-adding and repetitive activities. Harmonise processes of additional two divisions handling the same functions across two different industries.

ISS lead project consultant Yu Chen Kuang commented on ETPL's senior management and strong support, resulting in a successful, smooth path for the reengineering. Mr Philip Lim, ETPL's chief executive and the project's executive sponsor, personally chaired all the programme's steering committee meetings. Mr Liew Hui Ming, VP of the Planning, Innovation Network & Enterprise Division, who led the BPR core team, also was a proactive part in the project along with the various division process owners.

Hui Ming complimented the excellent work and BPR result from NUS-ISS. Special note was made of:

- The complete end-to-end overview of ETPL's core business processes
- Creation of a core BPR team with the experience to modify and fine-tune processes, requiring no need of an external consultant.
- Concise blueprint for the new IT system.

Case Study (Global): Global - United States: Top-15 Retail Bank Banks on a Big Transformation



Price Waterhouse Coopers recently reported the success story of a US top-15 retail bank utilizing their reengineering services. The goal was addressing and improving business processes to achieve efficient, improved customer experiences.

How did PwC design and help the bank implement cost-saving process improvements? They first analysed the current status of the bank. Process walkthroughs and time-motion studies identified challenges using key performance indicators, leading practices, comparisons to benchmarks, and performance levers.

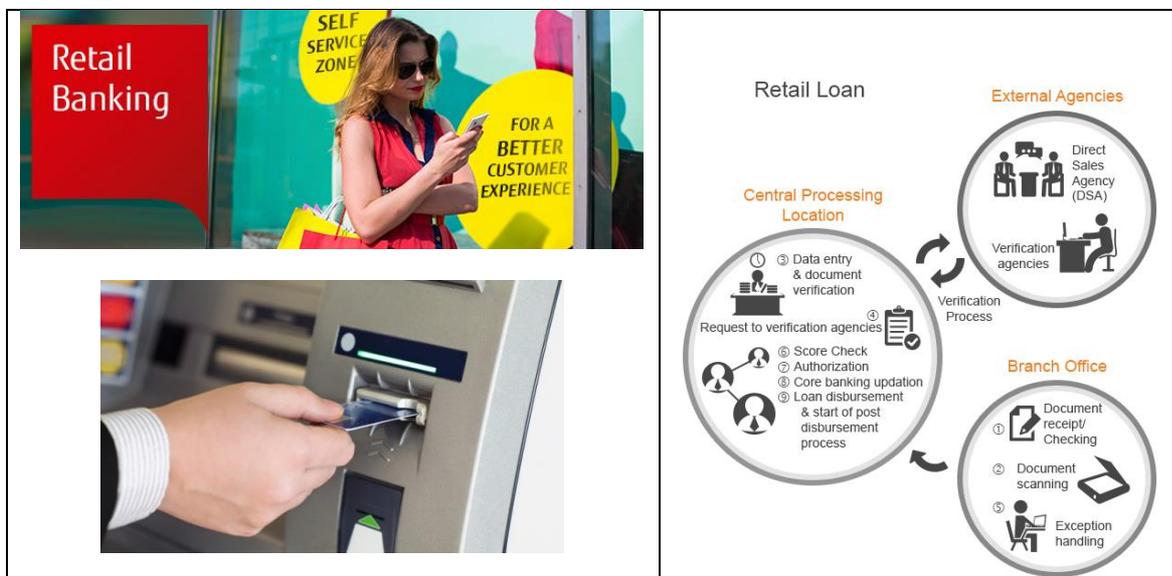


Figure 13: Retail Banking

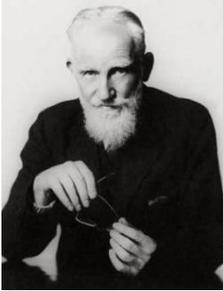
Source: <http://www.newgensoft.com/solutions/banking-finance/loan-origination/>

Reengineering addressed the inconsistent client experience. Hand-offs were overdone, resulting in inefficient processes. Team fragmentation resulted in duplicate activities and processes. Another significant concern was the lack of accountability and responsibility for end-to-end business processes. New processes were developed to create effective operations.

The bank reported immediate savings after implementation of the BPR started in operations areas across commercial, consumer, and shared services functions. Savings of \$30 to \$50 million were realized the first year. Transformations are still being made, with an overall savings between \$50 and \$80 million hoped for once everything is in place. Continuous improvement enhances the customer experience throughout all phases of contact.

5. Conclusion

BPR is a process that encourages participants to ask “why” and ponder “what if?”. Unconventional questions encourage studies and resolutions of situations that are normally not addressed when developing major changes to business processes. Results are typically realised from 12 to 18 months after the risky redesign takes place.

 <p>“What if we don’t change at all ... and something magical just happens?”</p> <p>Source: https://nvms.us/2015/08/31/september-28-how-dispute-resolution-professionals-can-harness-teachable-moments/</p>	 <p>You see things; and you say, 'Why?' But I dream things that never were; and I say, 'Why not?'</p> <p>- George Bernard Shaw</p> <p><small>Tweetediffers.com</small></p> <p>Source: http://www.quotationof.com/why-not.html</p>
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Rather than a quick-fix opportunity, business process reengineering is carefully planned and constantly tested, evaluated, and refined. Dramatic levels of improvement are realised by its break from conventional wisdom and traditional constraints of organisational boundaries. BPR is broad-based and cross-functional. New processes brought about through effective technology replace ineffective, outdated procedures.

Recommended Readings

Title	Reengineering the Corporation: A Manifesto for Business Revolution
Author(s)	Michael Hammer and James Champy
Publisher	HarperBusiness; Rev Upd edition
Year of Publication	2006
ISBN	978-0060559533

Title	Improving Business Processes (Pocket Mentor)
Author(s)	Harvard Business School Press
Publisher	Harvard Business Review Press
Year of Publication	2010
ISBN	978-1422129739

Title	The Power of Business Process Improvement: 10 Simple Steps to Increase Effectiveness, Efficiency, and Adaptability
Author(s)	Susan Page
Publisher	AMACOM; 2 edition
Year of Publication	2015
ISBN	978-0814436615

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Zigiaris, S. (2000, January). Business Process Re-engineering BPR. Retrieved 2016, September 15 from http://www.adi.pt/docs/innoregio_bpr-en.pdf