

Business Process Improvement

A draft methodology for UNE

What is BPI?

BPI – Business Process Improvement – has been defined as “the critical analysis and radical redesign of existing processes to achieve breakthrough improvements in performance measures [such as cost reduction, time reduction or quality improvement].”¹

- BPI is not Total Quality Management (TQM), which refers to programs and initiatives that emphasise incremental improvement in work processes and outputs over an open-ended period of time. BPI, by contrast, refers to discrete initiatives which are intended to achieve radically redesigned and improved work process in a bounded time frame².
- BPI is not Organisational Transformation (OT), which refers to the broad issues of an organisation’s strategic, structural and business change. BPI can, however, facilitate and contribute to Organisational Transformation.
- BPI is not Change Management, which refers to planned, managed and systematic situational change – often in response to external changes over which the organisation exercises little or no control. BPI draws on various Change Management strategies and techniques in order to implement its results.

BPI requires taking a broad view of both information technology and business activity, and of the relationships between them. Information technology should be viewed as more than an automating or mechanising force: it can fundamentally reshape the way business is done. Business activities should be seen as more than a collection of individual or even functional tasks: by taking a process view to maximise effectiveness.

Information technology and BPI have a recursive relationship. Information technology capabilities should support business processes, and business processes should be developed in terms of the capabilities which the enabling technology can provide. Davenport & Short³ refer to this broadened, recursive view of information technology and BPI as the new industrial engineering.

Although BPI has its roots in information technology management, it is primarily a business initiative that has broad consequences in terms of satisfying the needs of customers and an organisation’s other constituents⁴. The information systems group may need to play a behind-the-scenes advocacy role, convincing senior management of the power offered by information technology and process redesign. It would also need to incorporate the skills of process measurement, analysis, and redesign. The specific business divisions lead the BPI initiatives; information systems groups serve as partners in enabling the radical changes.

General BPI Methodology

Put simply, a general model of BPI² involves the following steps:

- Develop the Business Vision and Process Objectives: BPI is driven by a business vision which implies specific business objectives such as Cost Reduction, Time Reduction, Output Quality improvement, QWL (Quality of Work Life) / Learning / Empowerment. These are or might be enumerated in or implied by UNE's Strategic Plan.
- Identify the Processes to be Improved: Most organisations use the *High-Impact* approach which focuses on the most important processes or those that conflict most with the business vision. A lesser number of organisations use the *Exhaustive* approach that attempts to identify all the processes within an organisation and then prioritise them in order of improvement urgency. In UNE's context the identification of processes would be a primary responsibility of the BPI Steering Committee, subject to the approval of the Executive Committee.
- Understand and Measure the Existing Processes: For avoiding the repeating of old mistakes and for providing a baseline for future improvements. This is the initial activity of UNE's BPI Working Groups
- Identify Information Technology Levers: Awareness of information technology capabilities can and should influence process design.
- Design and Build a Prototype of the New Process: The actual design should not be viewed as the end of the BPI process. Rather, it should be viewed as a prototype, with successive iterations. The metaphor of prototype aligns the BPI approach with quick delivery of results, and the involvement and satisfaction of customers.

The UNE BPI Process

In UNE's context the BPI Process could occur in three phases.

Identification phase

1. Senior UNE staff identify business processes requiring improvement.	2. Input from the UNE Community regarding the identified and additional processes requiring improvement.	3. BPI Steering Committee evaluates responses with regard to the University's strategic plan and business objectives, and recommends priorities to Executive Committee.
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Approval and Initiation Phase

4. Executive Committee reviews recommendations in terms of information systems projects and developments and makes recommendations to Vice-Chancellor's Committee.	5. VCC approves recommendations in terms of institutional priorities and commitment.	6. BPI Steering Committee initiates BPI Working Group for each approved BPI Project, and monitors work in progress.
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Review and Implementation Phase

7. Each BPI Working Group undertakes a process review in accordance with UNE's BPI methodology (see next section).	8. Prior to commencing the Pilot step of the BPI methodology, resource implications would be referred to the BPI Steering Committee, Executive Committee and VCC for consideration and approval to proceed.	9. BPI Working Group proceeds with approved implementation in accordance with UNE's BPI methodology.
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The UNE BPI methodology

Once a process has been approved as a priority BPI Project, it is important that a consistent and systematic methodology be applied by the specific BPI Working Group. The following steps should be followed, noting especially that each step must be completed before the next step is undertaken.

Step	Tasks
1. Observe and document existing process	<ul style="list-style-type: none"> • Identify process flows; • Document in accordance with agreed standard format (including details of inputs, outputs, interfaces and relationships, organisational structures and responsible officers); • Seek user feedback, amend documentation as necessary; • Obtain sign-off by stakeholders.
2. Identify opportunities for improvement	<ul style="list-style-type: none"> • Critique existing process; • Stimulate discussion using a variety of techniques; • Look to best practice elsewhere; • Identify external factors and changes; • Document opportunities and options.

3. Propose changes	<ul style="list-style-type: none"> Undertake user-driven non-technical conceptual design.
4. Scope changes	<ul style="list-style-type: none"> Document technical design and organisational impacts.
5. Pilot	<ul style="list-style-type: none"> Develop prototype and documentation.
6. Market	<ul style="list-style-type: none"> Publicise pilot and invite responses to design and testing.
7. Test	<ul style="list-style-type: none"> Conduct user and technical testing; Modify prototype in response to testing and user responses; Repeat step until user sign-off is achieved.
8. Implement	<ul style="list-style-type: none"> Include the logical and formal termination of any existing processes replaced by the implementation.

The BPI Steering Committee will monitor the progress of BPI Working Groups and has a specific responsibility to conduct a post-implementation review of each Project.

Ensuring success

According to the literature, 70% of BPI projects fail. The biggest obstacles that BPI faces are: (i) Lack of sustained management commitment and leadership; (ii) Unrealistic scope and expectations; and (iii) Resistance to change.

Based on BPI consultants' interviews⁵ the preconditions for BPI success and failure are:

Positive Preconditions	Negative Preconditions
Senior management commitment and sponsorship	Wrong sponsor
Realistic expectations	A "do it to me" attitude
Empowered and collaborative workers	Cost cutting objectives
Strategic context	Narrow technical focus
Shared vision	Unsound financial condition
Sound management practices	Too many projects underway
Sufficient human and financial resources	Fear, lack of optimism or animosity

Conclusion

UNE needs to apply the lessons learnt elsewhere by BPI practitioners to avoid the high propensity for BPI failure. Successful and sustained implementation of BPI at UNE can provide substantial benefits in the short, medium and long term.

A sound implementation of BPI at UNE will provide a mechanism for:

- Staff to have meaningful input into process design and organisational performance, and
- Management to achieve UNE's strategies and objectives on the basis of well-founded processes and implementations.

BPI success depends on management support, sustained effort and resolute implementation of an objective, rational and systematic methodology.

References:

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2. Davenport, T.H. Process Innovation, Boston, MA: Harvard Business School Press, 1993.
3. Davenport, T.H. and Short, J.E. The new industrial engineering: information technology and business process redesign, *Sloan Management Review*, 1990 Summer, pp. 11-27.
4. Davenport, T.H. and Stoddard, D.B. Reengineering: business change of mythic proportions, *MIS Quarterly*, 1994, v.18, no.2, p.121
5. Bashein, B.J., Markus, M.L., and Riley, P. Preconditions for BPR success: and how to prevent failures, *Information Systems Management*, 1994, v.11, no.2, pp. 7-13.

Background readings:

Grotevant, S.M. Business reengineering and process redesign in higher education: art or science? Paper presented at CAUSE 98, Seattle, December 1998. (<http://www.educause.edu/ir/library/html/cnc9857/cnc9857.html>)

Malhotra, Y. Business Process Redesign: An Overview, *IEEE Engineering Management Review*, 1998, v. 26, no. 3. (<http://www.brint.com/papers/bpr.htm>)