



White Paper

Business Process Improvement for Sustainable Outcomes

Introduction

A lot has been written on the subject of business process improvement (BPI) from authors such as Rummler, and Hammer & Champy. Equally a vast amount of material has been produced on the related topics of the Balanced Scorecard, workflows, the benefits of IT and why projects fail.

The purpose of this white paper is to show how a BPI program can be managed and implemented successfully and to offer some insights into the inter-relationship between BPI and the above mentioned texts. The paper will also show why it is dangerous to split the above concepts into discrete unrelated management principles. Finally it will introduce some 'new' concepts into the mix and describe the need for modelling software to support BPI projects. We say the concepts are 'new', but in reality they have been published in popular literature for the last 50 years, yet they remain misunderstood by most managers. These 'new' concepts are nevertheless vital for the success of any BPI project.

"If you don't know where you are going any road will get you there." Anon.

The easy questions

Before we can delve too much further into the world of BPI we need to resolve a few 'easy' questions.

The first question is – "Why does anyone attempt BPI?"

The answers to this question are many and varied and include anything and everything from strategy execution, knowledge management, business streamlining, process efficiency, customer satisfaction, mergers and acquisitions and preparing for the implementation of new IT.

These answers all suggest an improvement in the Return on Capital Employed (ROCE) and therefore our answer to the question is simply:

"To improve the 'Return on Capital Employed'."

To better explain what I mean by this, let me backtrack to the basics and ask another question.

“What is a process?”

This question should be easier to answer than the first one, but our experience is that most managers find this question quite difficult to answer in any great detail. Let me explain.

There are three types of process:

- 1) The Transactional process. This is the sequence or flow that most people refer to when they talk about business processes.
- 2) The Management process, and
- 3) The Information process.

The Transactional Process

We will discuss the Management and Information processes later in the document and for now I will explore the Transactional process. Even with the above definition there is ambiguity on what exactly a Transactional process is. This is because a process does not exist in its own right anymore than an organisation does. Highly creditable management books have described organisations as a collection of people working towards to a common goal. They expand this theory to say “people do business with people”, reinforcing the point that organisations don’t in and of themselves exist.

The same applies to business processes. A business process is a collection of ‘paths’ all working together towards a common deliverable. The impact of this insight is that to improve the process (BPI) you have to improve key individual paths. I will explain what a path is later but for now let me lift the level of thinking and examine the link between ROCE and BPI.

This brings up the next question:

“What is meant by the word Capital in the ratio ‘ROCE’?”

There are many possible and often complex answers to this question. To manage this I have simplified the answer to say:

“Capital refers to the four business inputs of Products & Services, Infrastructure, People and Money.”

A process takes these four 'ingredients' (inputs) and blends them into an output that is valuable to the customer. The idea is that the value the customer places on the output is greater than the sum of the holding cost of the 4 inputs and the cost of blending them into the output itself. When a company has this relationship right it has a positive ROCE and the mandate of all management is to continually strive to improve the ROCE under their control.

To improve ROCE means either:

- 1) Reducing the cost of production for the same output (supply side)
- 2) Increasing the output for the same cost of production (demand side)
- 3) Simultaneously increasing output and decreasing inputs

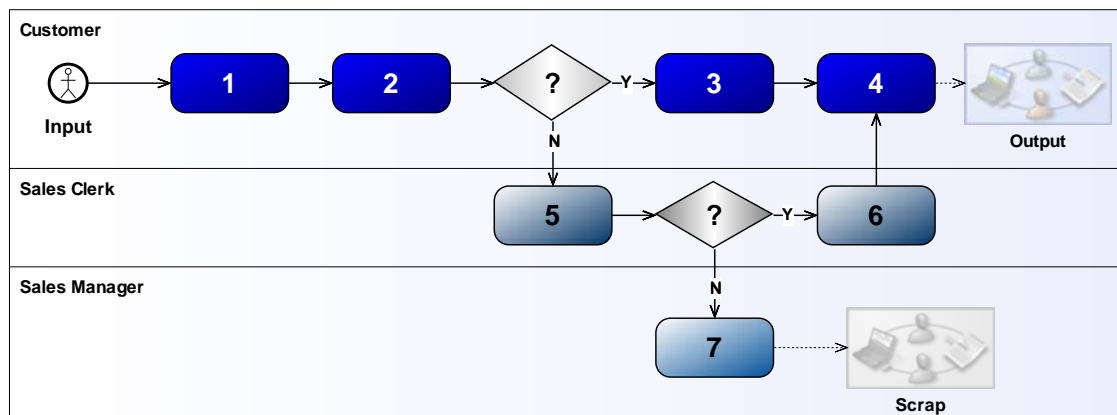
Alternatively Marketing can, (in addition to the above three strategies):

- 1) Increase the value that the customer places on the process output.

Our focus is on options 1, 2 and 3 above, and to do this we need to revisit path analysis.

Path analysis and weighted averages

Consider the following process:



The next easy question is:

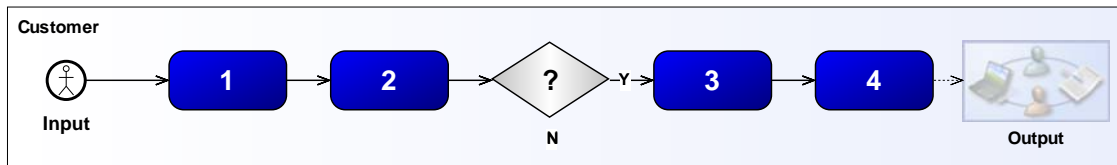
“How many paths are there in this process?”

If you answered 3, then you are correct...

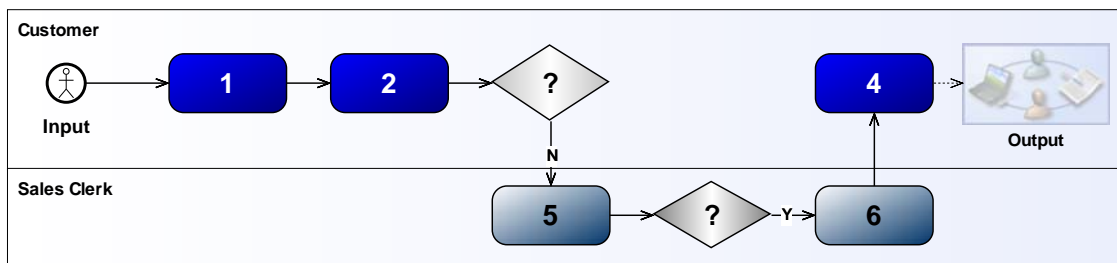
- Path 1 is determined by the first decision being taken as a ‘Yes’
- Path 2 is determined by the first decision going ‘No’ and the second going ‘Yes’
- Path 3 is determined by the first decision going ‘No’ and the second going ‘No’

These 3 paths are shown below.

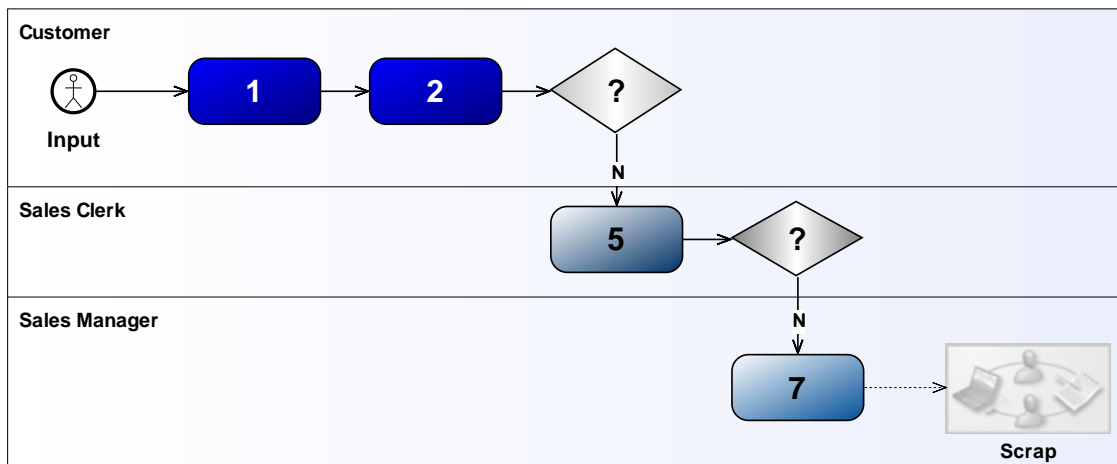
Path 1



Path 2



Path 3



The reason that path analysis is important is because it directly affects the company cost and pricing models. Consider the following table:

Path	Volume	Cost	Weighted Avg
1	60%	\$100.00	\$60.00
2	30%	\$200.00	\$60.00
3	10%	\$60.00	\$6.00
Weighted average total			\$126.00

Using activity based costing we can calculate the production costs of path 1, 2 and 3 to be \$100.00, \$200.00 and \$60.00 respectively. Simple multiplication allows us to calculate the weighted average cost of a single instance of the process to be \$126.00.

If the process could be improved using workflows or other IT solutions, so that 100% of the volume moves through path 1, then this would produce a savings of \$26.00 (\$126.00 - \$100.00) per process run. If we assume that the process is run 10,000 times a year, then this is a savings of \$260,000.00. Another way of looking at this is that the saving has been achieved by reducing the amount of inputs required to produce the same output. The inputs are reduced by the amount that they contribute to paths 2 and 3.

The overall effect is a solid improvement in ROCE.

This brings up my last question in this section:

“Once you have found or made this saving how do you sustain it?”

The answer lies in the Management process.

The Management Process

Management schools teach their students many things, but one thing they do not seem to teach is what is required to manage a process or in other words – what is the process of [operations] management?

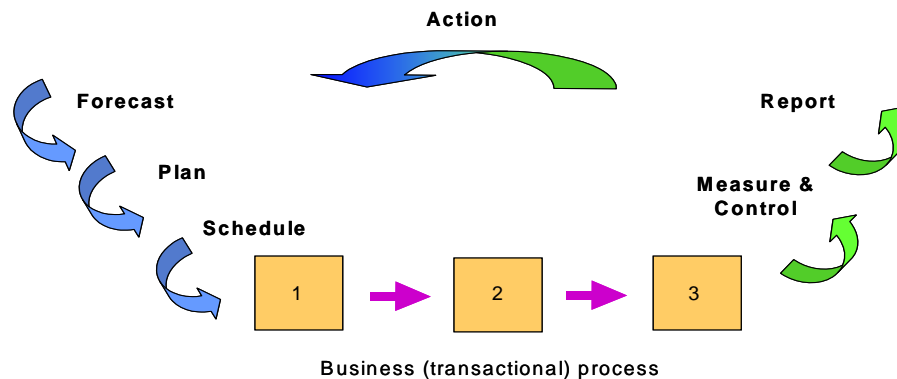
The ‘management of process’ = ‘process of management’

The role of the manager can be reduced to

- Understand (forecast) what demand there is for the process
- Determine (plan) the resources required to meet that demand
- Allocate / schedule those resources as effectively as possible to do the work
- Measure the outputs of the process
- Take action on (control) the variances
- Report to senior management.

While these steps will seem obvious, they are not straightforward to implement and take strong discipline to maintain.

The following schematic depicts the link between the Management process and the Transactional process:



The key action in the management process is 'schedule'. This is the formal initiation of the transactional process and is therefore the trigger that will cause costs to be incurred and revenue to be generated. It is also the primary management control point for ensuring that work will follow a preferred path (path 1 in the example above). It should be noted that scheduling will happen anyway, whether it is formalised or not, but when it is 'informal' there is no guarantee that the process sequence will follow path 1.

Our experience is that Balanced Score projects focus on Forecasting, Measuring and Reporting. Their weakness is that they skip the Scheduling step and therefore break the link between the process and the Management of Process.

I will close this section with the observation that it is as important, or more important, to reengineer the Management process when reengineering the Transactional process because without it, lasting sustainable savings are unlikely to be achieved.

The Information Process

The age-old problem of the business 'not asking for what they need' and the 'IT department not providing what they were asked for' is as real today as it has always been and for a BPI initiative to be completely successful it is vital to bridge this gap. A contributor to this problem is the absence of a common vocabulary between the IT department and the business.

"There is no such thing as an IT strategy. You have an 'I' strategy and 'T' response."

The two primary building blocks of the information process are the Quality and Physical attributes of information. Consider a child with a cold. The child's symptoms are a headache, fever, runny nose and eyes. A parent cannot fix any of these symptoms but can address the cause of the distress namely the lack of shoes and no coat in the middle of winter. It is exactly the same with the information attributes. The Quality attributes are the symptoms and the Physical attributes are the cause.

Business managers deal with and respond to symptoms. These may include late or inaccessible or incomplete information.

IT managers deal with the cause - the way the information is collected, stored or processed.

Example: A company initiates a project to address the problem of the weekly sales figures being reported late. Typically the business analyst will look at the Transactional process to determine what process steps can be removed or improved. An alternative approach is to accept that the Transactional process is robust and requires no change and that the BPI benefits will come from improving the flow of information. The investigation may reveal that the salesperson only submits handwritten sales orders once a week. This means that the information is late, inaccessible and possibly incomplete. It is easy to imagine these

symptoms going away if the salesperson had a handheld device that automatically uploaded daily orders into the company systems.

When working on a BPI project it may be more relevant to improve the flow of information, rather than to change the way work is physically done in the Transactional process. Using the Physical and Quality attributes as a guide will help to do this.

Supporting Tools and Improvement Realisation

The types of analysis described above are often attempted using common tools such as MS Visio, Excel and Word, but overwhelmingly our experience is that when different tools are used for different parts of a process analysis it becomes impossible to ensure accuracy, speed and maintain a current 'version of the truth'. The project also forfeits the ability to conduct multiple 'what if' analyses and to compare and contrast different modes of operation.

A good business modelling tool (as opposed to a process mapping tool) will bring all aspects of the analysis together into a single environment and allow the business analyst to quickly and effectively manage highly complex business models whilst maintaining a single version of the truth. Data is entered once and used many times.

It is also important when selecting a business modelling tool that consideration is given to the broader opportunity to coordinate process improvement activities across all stakeholders. Process models should enable each viewpoint to be communicated and connected so that stakeholders can collaborate to evolve a common, understanding of their respective responsibilities. A holistic approach to change management can then be used to coordinate changes while ensuring clear visibility of those who are accountable for the change required to deliver the improvements.

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