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Business process management: a review and evaluation

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Introduction

Business excellence models, self assessment and policy deployment amongst other methodologies, help companies to identify areas for improvement. These help to define and communicate objectives and strategies and once this has been done the job of achieving improvement begins. "Process" orientation is embodied in the European Foundation for Quality Management (EFQM) and Malcolm Baldrige National Quality Award (MBNQA) Models for Business Excellence and Performance and there have been many terms used for this approach to the study of processes, including "process simplification", "process improvement", "process re-engineering" and "process redesign". However, Elzinga *et al.* (1995) propose that:

> Many companies are engaged in assessing ways in which their productivity, product quality, and operations can be improved. A relatively new area of such improvements is business process management (BPM).

DeToro and McCabe (1997) argue that BPM is "re-emerging" rather than a relatively new area but they agree with Elzinga *et al.* (1995) and Corrigan (1996) that BPM incorporates the approaches indicated above and that:

> There is renewed appreciation that no one performance improvement path meets every need and a combination of these paths is required.

Until recently most attention in the "process arena" has been focused on business process re-engineering (BPR) as described by Hammer (1990), Davenport (1993), and Hammer and Champy (1993). Despite BPR being eagerly embraced by many organisations it has failed to deliver the expected results, according to writers such as Harrington (1998), Malhorta (1996), Mumford and Hendrick (1996), and Deakins and Makgill (1997). Huffman (1997) makes the point:

> Organisations advocate a particular improvement strategy to the extent that it becomes the strategy of choice, de-emphasising or excluding all others. This need not, and must not, happen. A variety of approaches, techniques, and tools are available for improving products, systems, processes and activities.

To this end, BPM is an approach that "presents a more comprehensive array of improvement options" and can help organisations "avoid the tendency to fall prey to the hype of a new management fad" (DeToro and McCabe, 1997). Armistead *et al.* (1997) say the drivers for adopting BPM are:

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- "globalisation;
- changing technology;
- regulation;
- the action of stakeholders; and
- the eroding of business boundaries."

However, based on a review of the BPM literature, Zairi (1997) says that whilst the word "process" has become part of "everyday business language":

> The use of this concept is not really pervasive and what in fact has been acknowledged hitherto as prevalent business practice is no more than structural changes, the use of systems such as EN ISO 9000 and the management of individual projects.

This paper provides an overview of the BPM literature and then analyses the use of BPM in an organisation recognised by many writers as "world class".

Definitions

Coombs and Hull (1996) believe that the emergent "business process paradigm" lacks coherence of theories and practices and it is characterised "by an approach to strategy which shifts the focus to the important intrinsic properties of the firm, rather than its environment alone" and "by a variety of ways of understanding and managing the horizontal flows within and between organisations and by an emphasis on organisational change". Talwar (1993) defines a process as a "sequence of pre-defined activities executed to achieve a pre-specified type or range of outcomes" and Ould (1995) says there are two types of processes:

(1) "the sort that starts when necessary and finishes some time in the future;

(2) the sort that is constantly running."

Indeed, business processes can be considered the "strands of activity that link the operations of an organisation to the requirements of its customers" (IMI, 1994). They are generally cross-functional, horizontal in nature, lie outside the usual vertical, hierarchical company structure, and no single person has responsibility for the entire process. BPM is intended to align the business processes with strategic objectives and customers' needs but requires a change in a company's emphasis from functional to process orientation.

Although the literature on BPM is not extensive, it is possible to collate some useful descriptions and definitions. Elzinga *et al.* (1995) offer the following definition of BPM:

> A systematic, structured approach to analyse, improve, control, and manage processes with the aim of improving the quality of products and services.

Zairi (1997) describes BPM as:

> A structured approach to analyse and continually improve fundamental activities such as manufacturing, marketing, communications and other major elements of a company's operations.

In more general terms DeToro and McCabe (1997) suggest that by using BPM:

> The organisation is viewed as a series of functional processes linked across the organisation, which is how the work actually gets done. Policy and direction are still set from the top, but the authority to examine, challenge and change work methods is delegated to cross-functional work teams.

The main strands running through these definitions are that BPM is:

- structured;
- analytical;
- cross-functional; and
- a continuous improvement of processes.

What is business process management?

Armistead *et al.* (1997) raises the unanswered questions of:

> What is business process management? Firstly, is it a series of tools and techniques for improving the performance of business processes whether they be categorised as operational, support or directions setting. Or is it a way of integrating the management of the whole organisation? Secondly, if business process management is the latter, how can it be made to work? Finally, is it a tool for organisational design which needs to be understood by only a few within the organisation?

In his attempt to explain BPM, Zairi (1997) says "BPM is concerned with the main aspects of business operations where there is high leverage and a big proportion of added value. BPM has to be governed by the following rules:

- Major activities have to be properly mapped and documented.
- BPM creates a focus on customers through horizontal linkages between key activities.
- BPM relies on systems and documented procedures to ensure discipline, consistency and repeatability of quality performance.
- BPM relies on measurement activity to assess the performance of each individual process, set targets and deliver output levels which can meet corporate objectives.
- BPM has to be based on a continuous approach to optimisation through problem solving and reaping out extra benefits.
- BPM has to be inspired by best practices to ensure that superior competitiveness is achieved.
- BPM is an approach for culture change and does not result simply through having good systems and the right structure in place."

DeToro and McCabe (1997) say that "Under a process management structure, process owners, teams, and job performers are thinkers and doers as they design their work, inspect their outputs, and redesign work systems to secure improvements" and "teams are now responsible for meeting customers' requirements, reducing cycle time, lowering cost, and improving the

consistency of their outputs". They go on to say that BPM solves many of the problems of the traditional hierarchical structure because it:

- "focuses on the customer;
- manages hands-off between functions;
- avoids turf mentality because employees have a stake in the final results and not just what happens in their departments."

Prior-Smith and Perrin (1996) in discussing Hewlett-Packard's application of BPM say that at Hewlett-Packard "process management is a key responsibility empowered to employees and they have the responsibility to:

- identify their key processes;
- document their key processes;
- measure the effectiveness of the processes; and
- improve the processes."

Armistead *et al*. (1997) claim that "Hewlett-Packard are at the forefront of applying business process management" and say "the overall approach to process management in Hewlett-Packard is about defining metrics against their processes, tracking those metrics, reporting on 'business fundamentals', and taking corrective action where needed: essentially a 'plan, do, check, act, cycle'".

So, from the above, BPM could be considered as: a customer-focused approach to the systematic management, measurement and improvement of all company processes through cross-functional teamwork and employee empowerment.

Approaches to BPM

Zairi (1997) says that whilst there are "numerous examples of methodological approaches" he recommends that of Harrington (1995). Harrington proposes five major phases – organising for quality, understanding the process, streamlining the process, implementation, measurement and controls, and continuous improvement – subdivided into 27 key activities. He goes on to suggest that BPM is fundamentally a senior management objective because they are responsible for the vision, determining strategies, designing processes, lowering barriers and enabling employees to contribute. Harrington (1995) says, "The start of any improvement process is top management leadership." Whilst it is difficult to argue with this view, concentration on senior management can underplay the important and often pivotal role of employees in a business. Other authors (e.g. DeToro and McCabe, 1997; Elzinga *et al*., 1995) stress a more employee, team orientated approach to BPM, which is more consistent with TQM.

Indeed, Corrigan (1996) comments that "culture change has proved to be one of the most intractable aspects of successful BPM" and that "resistance to change has been identified as a major barrier" with "threats to individuals' jobs, the increase in short-term contracts, and lack of promotion prospects" having

been identified as the main areas of resistance. Not too dissimilar to the problems that beset the introduction of TQM and BPR, there has been a focus on the hard aspects of tools, techniques and IT systems rather than the soft aspects of the culture change and human resources management. Corrigan (1996) says that before BPM can be successfully introduced "a number of new individual strategic, team and technical skills are required". There is little doubt that whilst it is recognised that these should be in place before introducing BPM, many companies are still implementing the concept without the core competencies in place.

Elzinga *et al.* (1995) say "The quality of the enterprise's products and services is a direct reflection of its ability to improve its processes via BPM" and they present a generic method for BPM, which comprises of preparation, process selection, process description, process quantification, process improvement selection and implementation.

In conducting BPM it is important to acknowledge that not all processes are equal. DeToro and McCabe (1997) say that "one of the most effective ways to begin business process management is to inventory the organisation's processes". Once an inventory of processes has been conducted and the core processes identified, DeToro and McCabe recommend comparing the list in a benchmarking operation from which the processes to undergo improvement should be chosen and ranked, and following this they should be allocated to an owner, who has responsibility for:

> … managing and improving the core process across functional units. The core process owner will assemble a core process improvement team that will map the core process, document and analyse sub-processes, identify performance problems, select an improvement strategy, and implement changes to the process.

However, BPM does not stop there. The core process owner and team should continually monitor performance, assess results, and look for improvement opportunities, in effect a plan-do-check-act (PDCA) cycle. Yingling (1997), Armistead *et al.* (1997) and Obeng and Crainer (1994) all provide useful examples of how, in practice, organisations have set about this task.

From the preceding approaches to BPM, and in answer to Armistead *et al.*'s (1997) set of questions outlined earlier, BPM is both a set of tools and techniques for improving processes and a method for integrating the whole organisation and it needs to be understood by all employees. In response to the "how?" question the answer lies in policy deployment (see Lee and Dale 1998).

Business process management: a case study

The corporate organisation is involved in the servicing of capital equipment and employs over 4,000 people in 50 locations across the UK. They are international in configuration and control the activities of more than 24,000 employees in over 80 countries throughout Europe, Asia and Africa with an annual sales turnover exceeding £3.6 billion. The study was carried out at one

of the corporate organisation's six UK business units which is responsible for delivery and service to customers within its particular geographical region.

Corporate organisation: managing by BPM

The corporate organisation views BPM as "measuring their core processes, analysing what works and what doesn't and improving them" in simple terms "eliminating waste and adding value". From analysis of the corporate organisation's internal documents it is clear there are three factors critical to the success of BPM:

- Process discipline – applying business processes correctly and consistently across the organisation and continuously monitoring performance.
- Process improvement – business process improvement is defined in terms of:
  - processes are designed from the customers' perspective;
  - benchmarking;
  - continuous improvement;
  - breakthrough improvement; and
  - quality of information.
- Cross-process integration – managing processes from the customers' perspective and integrating improvement initiatives so they are transparent to the customer.

Business process management is the means by which the corporate organisation aims to improve its processes in order to achieve its corporate objectives. They have a set of standard processes in their business architecture and these are supported by BPM principles, which comply with Zairi's (1997) BPM "rules" of pervasiveness, ownership, documentation, measurement and inspection.

The intent of the corporate organisation is the disciplined application of BPM using the following principles:

- Pervasiveness – an understanding of BPM principles throughout the company.
- Ownership – all processes should have a clearly defined owner who reviews process performance and is responsible for their continuous improvement.
- Documentation – all processes should be modelled from end-to-end to link customers to the process and the standards of documentation are defined and support the needs of the process participants. This includes in-process control measures, document and information usage, management controls and a description of how to complete the process.

- Measurement – process measures are classified into cost, quality and time parameters. All key processes are tracked with in-process and results measures taken at critical steps in the process to meet customer requirements, prevent errors, reduce variability, improve cycle time and increase productivity.
- Inspection – process owners should monitor performance and identify gaps through regular reviews and then close the gaps. This principle also embraces the need to reduce variability.

In the organisation's view BPM also includes the identification and understanding of cross-functional interdependencies and improvements optimised by:

- investment in technology;
- fact-based decision making;
- simplification; and
- innovation.

The characteristics of processes in the corporate organisation are those as typically described by Mitchell (1991):

- "they have customers (internal or external), they have defined outcomes and there are users for those outcomes;
- they can cross organisational boundaries."

These characteristics are consistent with the ideas of Coombs and Hull (1996), IMI (1994), and Talwar (1993) who use terms such as "horizontal flows", "link the operations … to … customers" and "pre-specified type or range of outcomes" to describe business processes. The corporate organisation is a firm believer that process discipline, improvement and cross-process integration are the critical success factors for BPM. This again is supported by the BPM definitions of Elzinga *et al.* (1995), DeToro and McCabe (1997) and Zairi (1997) who stress "a structured approach", "continual improvement" and "cross-functional work teams". Furthermore, they also break down their processes into management, operational and enabling processes, which appears to be a standard approach to BPM as described by DeToro and McCabe (1997).

A study of the application of BPM in a business unit

A study was undertaken in a business unit (BU) of the corporate organisation to assess its use of BPM, using a programme of semi-structured interviews across the BU functions and across its hierarchy. A total of 30 senior managers, line managers and staff were involved in the series of interviews.

The BU attempts to apply the BPM discipline, as defined by the corporate organisation, in that many of its key processes are owned, documented, measured and inspected. However, the level to which that discipline is applied is variable. Of the five BPM principles – pervasiveness, ownership, documentation,

measurement and inspection – the one most keenly applied is measurement. It is clear from the study that the BU has measures for everything, in fact far too many for managers to use effectively. What the BU does not have is "pervasiveness" and "documentation" which should really come before "measurement" and "inspection". Before the BU can simplify and improve a process, it must first be understood and then documented. In an effort to get results there is an element of "cart before the horse" in the application of BPM.

During the course of the interviews, few employees were aware of the corporate organisation's BPM principles, although most could identify a process with which they were familiar. However, as one manager said, "processes get in the way, they're seen as cumbersome, we need to make it more slick".

All of the key processes tend to be owned but the level of documentation was variable in that some had been "fully" documented, some had been part-documented, and some had not been documented at all. The service engineers, working as self-managing work groups (SMWGs), are some of the most advanced in terms of BPM principles, with each empowered team having owned and documented processes for key areas and these are inspected bi-monthly by line-management. Processes are measured during monthly service reviews and key process measures are displayed on a three-monthly tracking chart as part of a visible management system. Despite this there is considerable variability between these SMWGs in the application of BPM, it all depends on individuals and team motivation.

An example of an "incomplete" process is the marketing plan process, its owner claimed that he had "too much to do and too little time". There was considerable pressure to get the marketing plan in place so that the action preceded the process, although the owner did say that he wanted to "get a process written once the plan is in place". Not surprisingly "documented processes" was identified as a weakness in a SWOT analysis undertaken by the responsible managers.

Another example of incomplete application of BPM principles was found in the BU operations area, where only some of the key statutory processes were documented whilst much of the other processes were not documented in sufficient detail. Insufficient resources in terms of permanent staff, computers and "systems" was the reason cited for the lack of BPM principles. It was observed that on one book shelf in the finance area the available documented processes were company ones, dated 1992. It was admitted that this collection of processes had been superseded a number of times and that in many cases the BU did have its own process documented that had revised the original "company" processes two or three times. However, this was not a problem as the manager of the financial function claimed "I never refer to it, I don't have to."

Indeed a common cry throughout the BU was: "Workload too great to complete normal work, never mind devoting effort to simplify processes."

Another example of where BPM principles are not successfully applied is in the sales management process, where discrepancies were identified as:

- inconsistent applications across teams;
- documentation varies by process;
- it is a time-consuming process;
- no time for manager to review the process;
- no ownership of the process; and
- no common definitions.

Although there is evidence that improvement, in terms of BPM, is taking place throughout the BU there is little evidence that it is sufficiently directed and is being successfully co-ordinated so that everyone is pulling in the same direction. There is a need for more cross-functional integration of processes and improvement efforts.

There are cross-functional teams within the BU which perform improvement roles as described by Elzinga *et al.* (1995), DeToro and McCabe (1997) and Yingling (1997) but these are not co-ordinated to any degree, neither are they focused on the strategic direction of the BU. What is missing is the preparation and organising stage that should have preceded the application of BPM. Senior management need to direct BPM activity towards the vision and mission goals and the vital few (VF) objectives of the company rather than let teams haphazardly and intermittently use the BPM methodology.

The corporate organisation and the BU is a matrix organisation, along the lines described by Armistead *et al.* (1997) in their case study of Hewlett-Packard, a half-way house between function and process orientation. It will take impressive leadership and cultural change to achieve a full conversion to process orientation, but that will be necessary if BPM is to be lived. BPM is supposed to avoid the limitations of in-company barriers, turf-protection and poor communication but in the BU these are still evident. The unit still has some narrowly focused, departmental teams with their own procedures and approaches to the business which creates barriers of understanding, communication and competition; the small business thinking of the teams in the BU perpetuates the turf-mentality and poor communication exists throughout the unit.

This is the crux of the problems for the organisation, the BU and many other companies. How do senior managers reconcile their vision of a quality culture with their insistence on a highly competitive, sales orientated environment. In the BU everyone competes at every level, employees are competing against each other for recognition, reward and promotion; teams are competing against teams in numerous league tables, and functions compete against functions for results. Everyone wants to be first, either out of the natural human instinct to win or out of fear of the consequences of losing. The corporate organisation encourages competition, and reward and recognition is a major element of their HRM strategy, yet this strategy prevents them and the BU actually achieving its vision of a quality culture. With competition there can be no true "team-spirit" and without competition there can be no success.

Certainly, in the present culture which prevails in the BU employees could never contemplate a BPM system as described by Yingling (1997) which "encourages employees to improve key business processes, even at the expense of their department's performance." Yet, until this does happen the corporate organisation and the BU will never reap the benefits of BPM.

Conclusions

Business process management is the means by which the host organisation's employees aim to improve business processes to achieve their key objectives. The corporate organisation has a set of standard processes in its business architecture which are supported by the use of BPM principles. However, in the BU, although there are numerous in-process measures, there is little understanding of BPM; the extent to which processes are documented varies enormously and the application of the BPM principles is haphazard. Employees have too little time to spend on process simplification and improvement, what improvement does occur is uncoordinated and dependant on the individual process owner. In short, there is no co-ordinated approach to BPM and what improvement does occur is not always directed in line with the VF objectives.

The BU has far too many in-process measurements for employees to make sense of the information and use it effectively. There is an old adage "What gets measured gets done", but a contrary, cautionary maxim could be offered: "If everything gets measured, nothing gets done", thereby falling prey to Conti's (1997) observation that "many companies are obsessed with measurements, departments compete with one another for the greatest number of indicators, putting sensors everywhere" and one of Clark's (1996) causes for TQM failure:

> *Quality focuses disproportionately on organisational inputs* (for example, too much information), or on conversion processes (too many procedures), or on outputs. This situation is worsened if feedback is missing, overly detailed or inappropriate.

The amount of information within the BU needs to be reduced, critical processes required to meet the VF objectives need to be selected and the BPM activity needs to be more clearly focussed. With respect to information, the management of the BU tended to go for quantity rather than quality of information. It is also important to decide what measures are important and the bonus and commission of employees directed to these measures. In this way the BU will be linking policy deployment, BPM and employee involvement in one "simple" activity – rather than the plethora of initiatives, activities and programmes that burden the unit.

Documentation of processes is at different stages in the BU depending on the department and the criticality of the process, yet according to the corporate organisation, this stage is virtually complete in the organisation – which reveals that the corporate headquarters are not in touch with what is actually happening at unit level and that the BPM process is not revealing the whole picture to senior management. Yet, "process description" (Elzinga *et al.*, 1995), "understand the process" (Harrington, 1995) and "define key cross-functional

business processes" (Yingling, 1997) are essential steps in BPM. Without comprehensive definition and flowcharting it is not possible to move on to the next stage of breakthrough and continuous improvement.

The application of BPM was variable in the BU. Some of the processes complied with the corporate organisation's BPM principles, in other cases the application was patchy.

It was also found that although there were occasional cross-functional teams, the business unit operated as a collection of "small businesses" which were internally focused and did not see the bigger picture or operate in a true cross-functional manner. There was still too much turf-protection, too many barriers and too little cross-function communication and this limited the effectiveness of BPM.

The area of BPM is a relatively new field and there was little academic literature. From the literature and the examination of the business unit at the focus of this study it is concluded that BPM can be effective in helping companies avoid falling foul of the management bandwagon by integrating the use of improvement tools such as re-engineering, continuous improvement and benchmarking. However, true effectiveness requires cross-functional, process orientated management which is beyond the reach of most companies. Business process management is both a tool and technique to achieve improvement and a way of focusing the whole organisation on process improvement. It will be most successful if it is linked to policy deployment and when management determines the processes to undergo BPM on the grounds of critical objectives and company goals.

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