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Business Process Change and the Role of the Management Accountant

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Abstract

The role if the management accountant (MA) is undergoing a transition from that if a "number-crunching" preparer of financial statements and cost reports to that if a business partner. The MA is increasingly expected to analyze and explain the business implications if financial information and is becoming more involved in strategic planning, performance evaluation, and business process reengineering. Changes in the business environment have caused many companies to modify their strategic objectives and redesign their existing business processes. Firms can initiate and manage business process change (BPC) using different approaches. This article identifies the particular management accounting activities and skills required to support different approaches to BPC.

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Recently, the Institute of Management Accountants (IMA) commissioned a study to document the work management accountants do today and to predict what activities they will be involved in three to five years from now.[1] The study concluded that the role of the management accountant (MA) has undergone a significant transformation in recent years. MAs have evolved from "number-crunching" preparers of financial statements and cost reports to business partners, involved in strategic planning and decision making.

More specifically, the study reported that, currently, among the ten most critical activities performed by MAs are:
1. Customer and product profitability
analysis;
2. Process improvement assessment;
3. Performance evaluation; and
4. Long-term strategic planning.

Furthermore, these activities are expected to become the most important management accounting activities in the future.

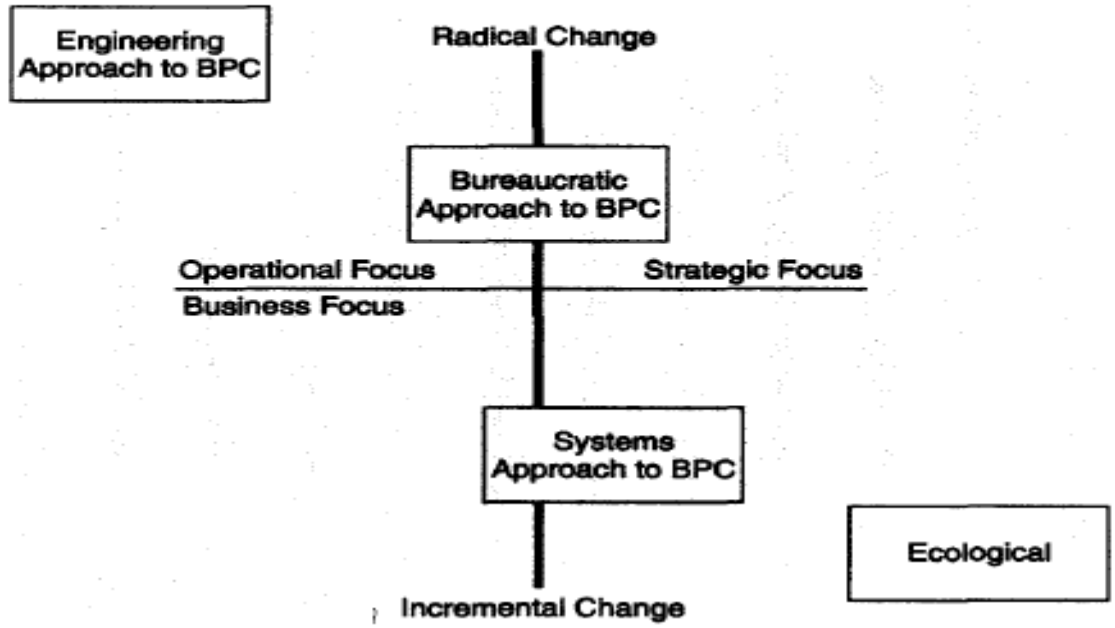
The evolution of the MA's role is, in large part, due to the significant level of organizational change that characterizes the contemporary business environment. Changes such as increased global competition, new production methods, and technological advances have provided much of the impetus for the shifting role of the MA. For example, many manufacturing firms have

found that the continued use of labor- based product costing systems can lead to major distortions in unit costs.

As a result, many companies have adopted an activity-based costing (ABC) approach to improve product cost accuracy. The information provided by an ABC system is allowing the MA to perform profitability analyses, engage in process improvements, develop innovative measures of performance, and participate in strategic planning.

Changes in the business environment are also causing many companies to modify their strategic goals and related business processes used to achieve those goals. Many firms are recognizing that a significant amount of their established business processes are obsolete or no longer support the company's objectives.

EXHIBIT 1
A Continuum of Business Process Change (BPC) Approaches



As a result, many firms have turned to business process re-engineering to improve their processes. The goal of these re-engineering efforts is to enhance customer value and increase company profits. This is accomplished by changing business processes to improve efficiency or by eliminating those that do not create value for the customer.

Business process change (BPC) can be defined as the approach used to initiate and manage changes in existing business processes. The approach used to re-engineer business processes can be characterized along a continuum as being either *radical* or *incremental.*[2] The typical

radical change approach is to determine the new, optimal processes using various techniques and then to implement the new optimized procedures quickly. Alternatively, the typical incremental approach to BPC provides for a more gradual, persistent introduction of new processes into the organization.

In addition, approaches to BPC can be classified as having a primary shifting role of MAs, it is critical to understand how MAs can effectively contribute to various BPC approaches.

Accordingly, this article is a guide for MAs toward more effective involvement in BPC and will layout the critical work activities that MAs will increasingly be required to perform with various approaches to process change. Drawing upon a classification of change approaches that was developed by information systems researchers, [3] the article will explain how MAs can enhance and expand their involvement in the development and implementation of new business processes.

Finally, the article identifies the particular management accounting activities and skills required to support different BPC approaches. This will help MAs organize their change efforts and provide a "road map" for their involvement in managing the changing needs of firms.

Business Process Change Approaches

Business processes are the tasks or activities that organizations perform to produce value for customers. [4] The need for changes in existing business processes is often the result of are-evaluation of an organization's strategic goals. For example, in recent years many firms have begun to place an increased emphasis on quality and customer satisfaction. As a result, many companies have modified their production and quality control processes in order to achieve higher levels of customer satisfaction.

When modifying strategic goals and related business processes, companies can implement BPC using various approaches. No matter which approach is used, however, the key question is can existing processes be redesigned or new processes developed to provide the firm with a means for achieving a competitive advantage?

While, at present, there is no comprehensive classification of approaches to BPC in accounting, such a classification has begun to evolve in the information systems arena.[5] Exhibit 1 illustrates a continuum of BPC approaches, distinguished along two dimensions:

1. The speed of change; and
2. The business focus of the change process.

The approaches shown in Exhibit 1 broadly classify process change as being either radical or incremental.

Radical process change is a structural approach in which the objective is to implement improved business processes as quickly as possible. The intent is to change existing organizational practices rapidly to take advantage of the increased competitive advantages the

new processes will provide. On the other hand, an incremental change approach allows for a slower, more gradual implementation of proposed changes. The argument for this approach is that it allows time for those personnel affected to adjust to and gain a better understanding of the process change. In the long-run, this is expected to result in a higher level of *commitment* to initiating and implementing change.

Approaches to BPC can also be classified by their predominant business focus, either operational or strategic. "Business Focus" refers to the level of management involved in initiating and managing the process change and to the organizational scope of the changes' impact. A BPC approach that has an operational focus would typically be initiated and managed by middle- or lower-level managers within one particular business unit and would primarily impact that business unit. Conversely, an approach to process change that has a strategic focus would usually be initiated and managed by senior managers and is likely to have a firm-wide impact.

Based on these business focus and speed-of-change classifications, four distinct approaches for managing BPC can be identified:
1. An engineering approach;
2. A bureaucratic approach;
3. A systems approach; and
4. An ecological approach.

Engineering Approach
The goal of an engineering approach to BPC is to optimize workflows by precisely scheduling and coordinating interdependent activities. This approach is typically used when a specific operational problem has been identified. To solve a problem related to operational efficiency, a BPC project can evolve independently of the company's strategic plan.

For example, innovations on the manufacturing shop floor are often driven by the identification of bottlenecks that inhibit production, rather than by initiating a formal enterprise-wide strategic plan. In these situations, the process change project is usually initiated by engineering or production personnel. Cross-functional teams comprised of members from the affected business unit are often assembled to design and integrate the new business process with the objective of identifying interdependencies and eliminating redundancies within the business unit to maximize overall efficiency.

As shown in Exhibit 1, the goal is to implement the new process quickly to gain an immediate competitive advantage. Also, such a change project is usually limited to improving the operational efficiency of a key process in one particular business unit.

Bureaucratic Approach
Under a bureaucratic approach to BPC, a formal planning and control system is developed to link the appropriate indicators of performance to the firm's strategy and to measure

improvements in operational efficiency. This type of approach also helps to promote and legitimize the need for investments in improved process capabilities in key areas of the firm. During the early stages of a bureaucratic approach to BPC, measurement issues can drive the discussions regarding the appropriate performance indicators. For example, issues of how to measure qualitative factors such as customer satisfaction are often important when a firm begins to implement a TQM program.

A bureaucratic approach to BPC is typically characterized by a top-down strategy formulation and implementation. Initially, senior management may initially develop the long-range objectives for the entire organization and from those objectives, specific goals would be established for individual business units. As a result, realizing significant BPC that is consistent with the firm's long-term goals will depend critically on senior management's continued commitment to the change process. Without high-level support and sponsorship, BPC initiatives in individual business units may become symbolic or incongruent with the objectives of the formal enterprise-wide strategic plan. As shown in Exhibit 1, relative to the engineering approach, process changes under this approach are implemented in a less radical manner and have a more strategic focus.

Systems Approach

The two incremental approaches to BPC are the systems approach and the ecological approach. These two approaches to change are more participatory and empowering than the two radical approaches discussed above. Both of these incremental approaches recognize the importance of bottom-up strategy formulation and implementation. The idea is that a more gradual, comprehensive approach to BPC will generally result in a more widespread and lasting commitment to change. However, these approaches require patience and the continued support of senior management to successfully create an environment that encourages process change.

EXHIBIT 2
Framework for MA's Involvement in Business Process Change

Change Strategy	Impetus for Change	Change Sponsor	Change Goals	MA Activities	MA Skills Required
Engineering	Operational problem	Line management	Maximize efficiency	• Performance evaluation • Benchmarking • Process improvement and integration • Internal consulting	• Familiarity with business processes • Analytical skills • Interpersonal skills • Understanding the business
Bureaucratic	Strategic planning	Senior management	Link process improvements to long-term goals	• Long-term strategic planning • Internal consulting • Performance evaluation	• Understanding the business • Purpose and use of acct. info. system • Interpersonal skills • Leadership skills
Systems	IST planning	Process owner	Improve information access and communication capability	• Capital budgeting • Business system analysis • Computer systems and operations integration • Education	• Analytical skills • Systems knowledge • Info needs of internal users • Purpose and use of mgt. info. system • Familiarity with business processes
Ecological	Vision or change in culture	Senior management (CEO)	Build widespread and lasting commitment	• Long-term strategic planning • Performance evaluation • Process improvement • Education	• Understand industry and business • Speaking and presentation skills • Leadership skills • Purpose and use of mgt. info. system

The systems approach to BPC typically identifies process change opportunities through the information system and technology (1ST) planning process. 1ST planning is the logical starting point for many BPC projects because most 1ST proposals promise improvements in operational efficiency and effectiveness through the use of innovative information technologies. Business units that have operational responsibility for the processes affected by the 1ST proposal usually introduce and sponsor the process change.

Improved information access and enhanced communication capability are often the goals of change projects initiated through 1ST planning. For example, firms in the banking industry have enhanced their internal processing capability, as well as the services offered to customers by using Internet technology.[6]

In the early stages of the systems approach, 1ST proposals are typically subjected to a business systems analysis that may include benchmarking and cost-benefit analysis. If a project survives this initial level of scrutiny, a detailed analysis of company-wide requirements and performance criteria are conducted. This is followed by the systems design phase where the goal is to provide enhanced information access and communication capability to facilitate coordination across all business functions. A key factor for success under an 1ST based approach is a close working partnership between operational management and the systems and technology function.

Ecological Approach
The ecological approach to BPC presupposes that the successful implementation of new processes will depend more on how well management deals with behavioral and organizational issues than with technical and financial concerns. The argument is that the long-term success of BPC depends more on how well the need for such changes is communicated to and accepted by all levels of the organization than on the detailed process analysis that is undertaken. For example, the extent of the commitment to and operational ownership of new cost management systems, such as ABC, is an important behavioral variable that is crucial for success.

Under the ecological approach to process change, senior management attempts to change the *culture* of the firm by building a widespread, long-term commitment to change. Hence, broad based involvement in the design and implementation of BPC, as well as employee training are critical for this strategy to succeed. As depicted in Exhibit 1, process change under this approach is strategically focused because senior management usually initiates and manages the process and the intent is to foster BPC firm-wide. As a result, process change occurs in a gradual, incremental fashion.

The Role of the Management Accountant
As shown in Exhibit 1, the speed of change and the primary business focus of BPC will vary depending on the particular approach used. This implies that MAs will need to concentrate their efforts on different activities to support the specific change approach adopted. Accordingly, a framework is developed in Exhibit 2 that links the appropriate management accounting activities to the impetus for change, sponsorship, and goals of each change approach. In addition, the knowledge and skills that the MA will need to perform the management accounting activities listed for each approach are identified.

The MA's. Role Under an Engineering Approach
As explained above, the primary goal of an engineering approach to BPC is to solve a specific operational problem to improve the efficiency of a particular business unit. During the problem identification phase of this approach, benchmarking and analyses of competitors are often required to establish the goals of the new process. The MA can play a significant role in these situations by comparing the business unit's performance with that of other internal groups or the competition. These types of analyses can help operational managers identify the underlying causes of performance problems and provide justification for process changes. Furthermore, documenting "best in industry" performance levels should help managers establish goals for the redesigned processes.

By acting as an internal consultant, the MA can also suggest performance indicators that properly measure progress toward improving operational efficiency. For example, in recent years many firms have been modifying their order fulfillment processes to reduce delivery cycle time and increase the number of on-time deliveries.

To effectively support the engineering approach to BPC, the MA will need to be knowledgeable about the processes being examined. Before the necessary benchmarking and performance analyses can be performed the key workflows for each process will need to be identified. Additionally, the MA will need to possess good analytical and problem-solving skills to generate analyses that accurately highlight the relevant workflows and the appropriate measures of performance.

Under the engineering approach, cross-functional teams are assembled to design and integrate the proposed process improvements within the affected business unit. The intent is to maximize operational efficiency by identifying interdependencies and eliminating redundancies. Modifications to the order fulfillment process, for example, could affect the order administration, purchasing, manufacturing, logistics, and accounting functions. Given the cross-functional nature of management accounting, the MA can play a vital role in helping operations management integrate the redesigned business processes. A cross-functional orientation, as well as good interpersonal skills will be required for the MA to effectively fill this process integration role.

The MA's. Role Under a Bureaucratic Approach

The bureaucratic approach to managing BPC uses a strategic planning process to legitimize and foster organizational change. Under this approach, there are important roles the MA can play in coordinating the long-range plans and measurement activities of the company.

An important aspect of the bureaucratic approach is to identify and gain an understanding of the industry's value chain, as well as the firm's process strengths and weaknesses. By actively engaging in the strategic planning process, the MA can help senior management shape the company's strategic direction and identify the key business processes that need to be redesigned. To effectively participate in this strategic planning process, the MA needs to possess an excellent understanding of the general economic, industry, and company-specific issues facing a firm.

A bureaucratic approach to BPC requires the establishment and maintenance of a link between strategic planning initiatives and measurable outcomes. The goal is to develop and implement performance measures that explicitly link the expected improvements in operational efficiency to the company's strategic goals. *Be*cause MAs often have primary responsibility for the management control system, they can play a chief role in relating a firm's plans to its performance measures.

However, when attempting to link strategic plans to redesigned business processes, the MA may have to look beyond the traditional financial measures. Use of a balanced scorecard, which highlights financial (e.g., profit margin and ROA) and non-financial (e.g., quality and throughput time) measures, is becoming a popular method for assessing improvements in performance after the adoption of process changes.[7]

Because the bureaucratic approach is often top-down, the MA needs to anticipate the behavioral implications of the measures used to evaluate a business unit's performance. Measures that are consistent with the strategic goals of the company should be used to motivate managers to exert great effort toward achieving those goals. Inconsistent performance measures could, on the other hand, motivate management behavior that is dysfunctional. For example, when manufacturing managers are measured on their ability to achieve budgeted production targets, the plant's level of output may be maximized, but other measures that are congruent with the firm's strategy (e.g., quality and inventory turnover) may suffer. Therefore, a MA can play an important role by making sure that the performance indicators that are used are appropriate in terms of company-wide goals.

The MA's Role Under a Systems Approach

As highlighted above, under the systems approach to BPC, business process change opportunities are typically identified through the information system and technology (1ST) planning process. The investment in new and innovative information technologies is often justified by improved information access and enhanced communication capability. Because a firm's budgeting process is often closely linked to 1ST planning, the MA's involvement in the 1ST planning process can be vital. 1ST proposals with BPC potential should be subjected to a business system analysis that can include benchmarking, cost-benefit analyses, and an assessment of strategic needs. To carry out such analyses, the MA needs excellent analytical skills, systems knowledge, and an understanding of the processes affected by the 1ST proposal. Systems analysis is a central activity in the systems approach to BPC. To design systems that provide accurate information to the appropriate users in a timely fashion, a more participatory approach to process change is usually followed. As a result, many system design projects are conducted by cross-functional teams comprised of information system professionals and members of the affected operational groups.

Given the MA's high level of involvement in the firm's management information system, a strong partnership between the MA and systems professionals can be critical to the success of this approach. Through this partnership, the MA can play the role of "translator" between the system designers and members of the affected groups. To play this role effectively, the MA needs to have a good understanding of the operational processes affected, the strategic goals of the organization, and the firm's systems issues (e.g., technology and budget constraints).

The MA can also play an educational role in 1ST change projects by acting as an internal "broker" of processes that affect multiple business units. The MA can fill this brokering role by helping line managers integrate processes that affect, for example, both the sales and production functions. The MA could help production managers understand the value of improving information systems that, in turn, monitor improvements in customer satisfaction. Likewise, the MA could help sales managers understand the value of automating processes that affect product quality and delivery cycle time. Understanding the information needs of various internal users and a familiarity with the business processes of the firm will help the MA identify integration issues and resolve conflicts.

The MA's. Role Under an Ecological Approach

The ecological approach for changing business processes is a holistic, cultural approach intended to establish widespread commitment to change and a new system of managerial decision making. The goal is to create a climate that will foster process change initiatives at all levels in the organization. In the initial phase of this cultural approach to change, senior management often modifies corporate level processes and structures. Operational managers would then be expected to initiate BPC projects that support the firm's strategic goals.

The MA can play several significant roles in this incremental, continuous approach to process change. First, the MA can help management identify and relate the firm's competitive position and strategic goals to the macro level processes and structures that require change. For instance, the MA could identify the performance metrics that the company should emphasize in its management control system that will optimally support the long-range goals of the firm. The MA must have a thorough understanding of the industry's competitive situation and the company's strategic plans to assist management in this way. Excellent communication and presentation skills would also be required to help communicate and promote these macro-level changes throughout the organization.

Second, the MA can play an important role in the next phase of this approach by helping operations managers identify and implement specific process change initiatives that support the company's new direction. Similar to the engineering approach, the MA can help managers identify operational problems and develop goals and the appropriate measures for the redesigned processes. By performing business system analyses and benchmarking process improvements, the MA can help management assess their progress toward achieving the company's objectives. In the long-run, the MA will need to play a leadership role to encourage line managers to follow a program of continuous process improvement.

Finally, educating managers at all levels of the organization about the need for fundamental changes in business processes is likely to become an important role for the MA in the not so distant future. For example, there has been much discussion recently about the need to completely redesign management information systems. The idea is to create a single integrated management information system that captures all aspects (e.g., financial, product related, and customer details) of "events" to replace the separate functional systems used by most companies.

A major obstacle to such a change is the entrenched culture of most firms, which is based on functional silos.[8] The MA could take the lead on this issue by educating functional managers about the benefits of having a single integrated management information system. To effectively play this role, MAs will need to combine their knowledge of the firm's strategy, management controls, and use of management information systems.

Conclusion

The role of the MA is undergoing a transition from that of a number crunching preparer of financial statements and cost reports to that of a business partner. The study commissioned by the IMA found that the MA is increasingly expected to analyze and interpret financial information to explain its business implications to operating managers.[9] For example, the MA is becoming more involved in strategic planning, internal consulting, and educating members of the organization.

An increase in competitive pressures, new production methods, and technological advances is providing much of the impetus for the transformation of the MA's role. These changes are causing many firms to modify their strategic objectives, and many established processes are being redesigned to help firms achieve these new long-range goals.

Companies can initiate and manage BPC using different approaches which can be distinguished by how quickly the change is implemented and by the primary business focus of the change process. This article has offered a framework that relates the changing role of the MA to the characteristics of each BPC approach. This framework identifies the particular management accounting activities and skills required to support the various approaches to BPC. Whether a company approaches process change in a radical manner using an engineering approach, or a bureaucratic approach, or in an incremental manner using a system approach, or an ecological approach, the MA can play an important role.

In general, the MA can play a leadership role in any BPC approach by helping managers develop long-range goals and implement specific process changes that support those goals. More specifically, the MA can become a change agent by acting as an internal consultant, by being involved in strategic planning and process improvement, and by understanding the performance evaluation process. Hopefully, this framework for the MA's involvement in the change process will guide management accountants toward more effective participation in various approaches
to BPC.

Notes

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