

Using Business Process and Operations Management Concepts to Improve Transparency and to Protect Stakeholder Interest

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Is Sarbanes-Oxley enough to protect the interests of all stakeholders? Will the Enhanced Business Reporting Framework lead to relevant and reliable reporting? Recent initiatives to increase the relevance and reliability of published financial statements have focused on the needs of equity stakeholders (investors and creditors). Non-equity stakeholders (suppliers, employees, customers and the public) continue to be ignored by these initiatives. Here we argue that incorporation of business process management (BPM) and operations management (OPM) concepts into published reports will address the needs of non-equity stakeholders, as well as better addressing the needs of equity stakeholders. BPM and OPM provide visibility into operations, and more importantly, into managerial decision making. BPM and OPM systems gather information that can significantly benefit users of published reports by increasing the reliability and relevance of those reports. The transaction processing that leads to the current financial statements is often at the lowest level of the organization. It shows the results of multiple decisions, but does not reveal the actual decisions or the risk environment in which they were made. In a sense, current financial statements focus on a narrow set of the outcomes of business processes with little or no information about the processes leading to the outcomes. For business reporting to be relevant, it needs to provide information about the decision-making processes and environment. It also needs to provide leading indicators rather than just lagging indicators in order for users to assess the organization's viability in today's volatile markets.

INTRODUCTION

Published financial statements are not reliable and do not provide stakeholders with the information necessary to make decisions. Despite a history of legislative actions, e.g., the Foreign Corrupt Practices Act of 1977 (FCPA) and the Sarbanes-Oxley Act of 2002 (SOX), and multiple committees and commissions, e.g., the AICPA Special Committee on Financial Reporting (1992), equity stakeholders (investors and creditors) are still not receiving relevant, reliable information. The Enhanced Business Reporting Consortium (EBRC) is making great strides in identifying how to address this need. But, unfortunately, even with the EBRC, the focus is still on equity stakeholders rather than non-equity

stakeholders (suppliers, employees, customers, and the public). Financial accounting and auditing do not, and are not currently designed to, provide information to non-equity stakeholders to support their decision-making or to protect their interests.

In the early and mid-20th century, the focus on equity stakeholders led to the elevation of their interests over the interests of other stakeholders. In the late 20th century, organizations recognized that customers had a significant influence on published financial reports and on the organization's viability. Product or service quality and customer satisfaction and retention became critical success factors in most organizations. The focus on quality and customers also led to increased emphasis on vendor and supply chain relationships. Current emphasis on sustainability and corporate responsibility has increased attention on communities and the public as stakeholders. But financial reporting has not kept up with these trends. Instead, the information gained from these new insights has only been used for internal decision-making.

In addition, employees have not received much attention in their role as stakeholders. Through their actions and decisions, operational and managerial employees actually create the value that is delivered to customers. They use the organization's technology, information and other resources to produce goods and services. They also develop and maintain the relationships with vendors, customers and each other. They have an essential role, if not the most essential role, in the success of the organization. They need information about the organization's goals, objectives, previous decisions, and the internal and external environments to successfully complete this role. Because of the critical nature of their role, there also needs to be visibility into their actions and decisions. But the current financial reporting system does not provide any information pertaining to their actions and decisions.

The lack of visibility into the strategic, managerial and operational decision-making processes is a critical issue. Without transparency, the reliability of the published reports cannot be assessed. But the current efforts to increase transparency, e.g., SOX, still only focus on internal controls for financial transaction processing rather than transparency into operational, managerial and strategic decision making. Concepts from business process management (BPM) and operations management (OPM), if incorporated into the reporting process, can lead to visibility into a wider range of events that impact both equity and non-equity stakeholders.

The plan of this study consists of four parts. The first section is the above introduction. The second section explains why current published financial reports do not meet the needs of equity and non-equity stakeholders. The third section explains how business process management and operations management concepts can be used to improve published reports and describes aspects of enhanced reporting. The final section presents a summary and conclusions.

CURRENT FINANCIAL REPORTING IS NOT SUFFICIENT

The American Institute of Certified Public Accountants (AICPA) has long recognized the shortcomings of financial statements prepared under current GAAP. In 1991, the AICPA Special Committee on Financial Reporting (popularly known as the Jenkins Committee) was formed to address concerns about the relevance of financial statements for equity stakeholders. The recommendations of the Jenkins Committee are summarized in Table 1. The recommendations included enhancing financial statements by expanding the historical data presented, providing forward-looking data, and revealing more information about the background and competitive environment of the organization.

TABLE 1
JENKINS COMMITTEE RECOMMENDATIONS

Historical data	1. Enhance financial statements
	2. Include operating and performance data
	3. Management's analysis
Forward-looking information	4. Opportunities and risks
	5. Plans
	6. Reconciliation with actual
Background	7. Relationships
	8. Objectives and strategies
	9. Description of business
	10. Industry structure

Disclosing more information about the segments of the organization, innovative financial instruments and off-balance-sheet financing, and disclosures about the uncertainty of measurements of assets and liabilities were recommended. This expanded reporting would also include management's analysis of the reasons for changes in financial, operating and performance-related trends. Providing forward-looking information would include identifying opportunities and risks, management plans including critical success factors and a comparison of actual performance to previously disclosed forward-looking information. The expanded reporting would also include the background of the organization, e.g., the directors, management and their compensation, major shareholders, and transactions with these related parties.

In 2003, the AICPA established the Special Committee on Enhanced Business Reporting to continue the work of the Jenkins Committee. The Committee formed the Enhanced Business Reporting Consortium (EBRC). The EBRC's mission is "To improve the quality, integrity, and transparency of information used in decision making ..." The EBRC is developing a voluntary, global framework to "provide structure for the presentation for of non-financial components of business reports – including key performance indicators – and facilitate greater integration of financial and non-financial components ... EBR will make it easier for stakeholders to understand the opportunities and risks a company faces ..." Despite the admirable intentions of the EBRC, the focus remains on equity stakeholders. While aspects of enhanced business reporting may be relevant to non-equity stakeholders, that relevance would only be a by-product of proposed improvements for equity stakeholders.

In addition to the relevance of the information contained in published financial reports, the reliability of the information has also come under scrutiny. The Sarbanes-Oxley Act of 2002 (SOX) was a congressional response to an already beleaguered financial accounting process. The breakdown of the independence between organizations and auditors had led to massive frauds. SOX increased the emphasis on accountability and internal controls in an effort to reduce the incidence and scale of financial frauds. This is not the first time Congress has felt the need to intervene to prevent fraudulent financial reporting. The Foreign Corrupt Practices Act (FCPA) was enacted in 1977 (substantially revised in 1988). The purpose of FCPA was to prevent the bribery of foreign government officials by U.S. persons that resulted in the publication of fraudulent financial statements. But the provisions that focused on internal control of the accounting transactions had more impact and were much more far-reaching. The National Commission on Fraudulent Financial Reporting, popularly named The Treadway Commission after its first chairman, established the Committee of Sponsoring Organizations (COSO) to address reporting issues. The member organizations were the Financial Executive International, the American Accounting Association, the Institute of Management Accountants, American Institute of Certified Public Accountants, and the Institute of Internal Auditors. The 1992 COSO report established a widely used framework for internal control. But, despite the emphasis of the FCPA, COSO and SOX on internal control, the intent of each is to improve reliability of financial reporting only for equity stakeholders.

None of these initiatives have focused on increasing the value of published reports to non-equity stakeholders. Several recent incidents of corporate bankruptcies and loss of shareholder's employee pension funds e.g. Enron (2001), World Com (2002), revealed hidden corruption in accounting practices that were not revealed in the auditors' reports of these companies. This paper suggests ways to prevent many such occurrences by incorporating BPM and OPM concepts into business reporting by building on the work of the EBRC.

BUSINESS PROCESS MANAGEMENT AND OPERATIONS MANAGEMENT

Concepts from business process management (BPM) and operations management (OPM), if incorporated into the reporting process, can lead to visibility into a wider range of events that impact both equity and non-equity stakeholders. A business process is a set of coordinated, cross-functional, sometimes inter-organizational, activities designed to produce business value and directed toward achieving measurable organizational objectives. Business process management is a discipline with the goal of total integration of management, organizational issues, people, process, and information technology for operational, managerial and strategic activities. One key aspect of BPM is that processes are *visible*. The ability to visualize and/or map an end-to-end business process facilitates the optimization and management of processes and provides transparency into processes. If managers and executives do not know exactly what is being done, it is difficult to assess the impact of decisions. Transparency into a process not only facilitates understanding of the process but improves the ability to control that process. It also facilitates compliance with regulatory requirements, such as the certifications regarding internal control for the Sarbanes-Oxley Act, which requires the management of U.S. companies whose stock is publicly traded to assess and report on the effectiveness of internal control over financial reporting. Transparency would also be useful in providing non-equity stakeholders with information needed to better evaluate their needs and actions.

Another key aspect of BPM is that visibility is accomplished by modeling the business processes of an organization at multiple levels. This multi-level perspective is critical to identifying strategic and managerial decisions, rather than just transactions, and the impact of those decisions on financial and non-financial outcomes. This information would provide insights into long-run viability and prospects of an organization that both equity and non-equity stakeholders need to make better decisions.

OPM focuses on the decisions concerned with the design, redesign, and management of business operations in the production of goods and/or services. It focuses on ensuring that business operations are efficient in the utilization of resources and effective in meeting customer needs. OPM is concerned with managing the people, materials, equipment and information resources that an organization uses to produce and deliver its goods and services. Clearly, this information would be useful to suppliers in their decision process. OPM overlaps with BPM in the design and management of the business processes and activities that actually produce those goods or services.

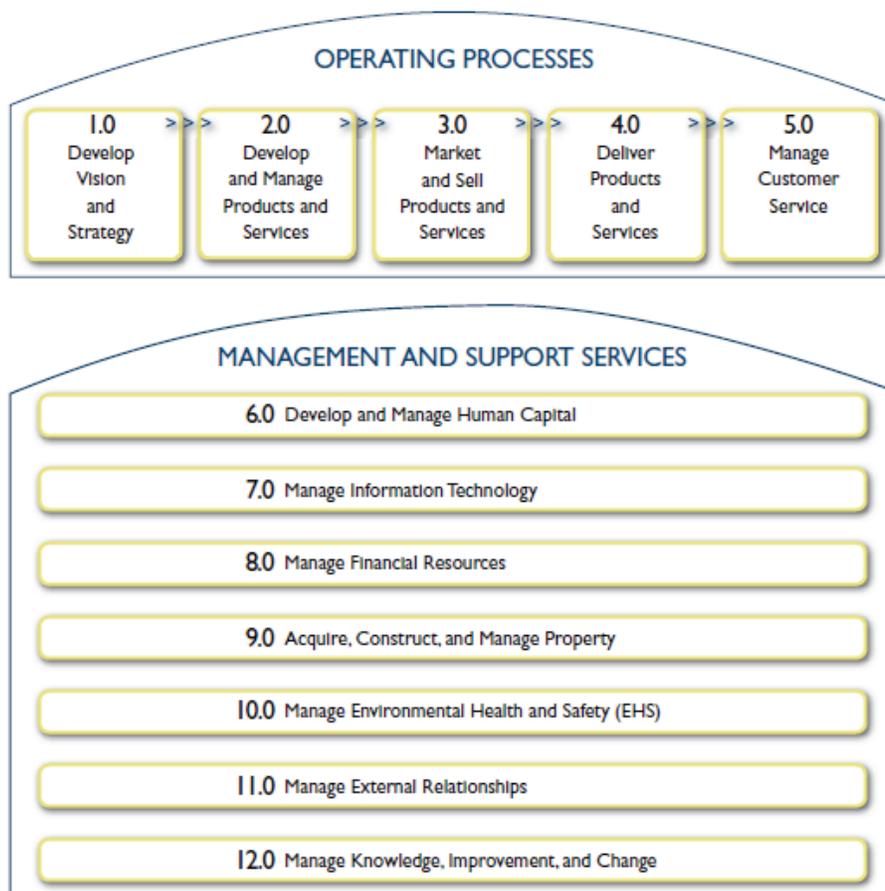
OPM's focus on decision-making, when combined with the BPM focus on the transparency of processes, can be used to move reporting from 'published financial reports' to 'published *business* reports.' Published reports can benefit from changing the focus from purely financial transactions to include operational and strategic events and decisions. Published *business* reports could increase the relevancy for both equity and non-equity stakeholders. This change will help protect *all* stakeholders' interests.

While the accounting profession has been focused on financial reporting rules, other professional organizations and institutions have focused on developing reference models for measuring performance based on BPM and OPM (Fettke, Loos and Zwicker 2005). Business process reference models provide descriptions of generic or industry-specific cross-functional processes, identification of the relationships among standard processes, and metrics to measure process performance. Many of the organizations also provide benchmarking, e.g., American Productivity and Quality Center (APQC). Organizations use reference models to identify their processes and to develop relevant metrics. Organizations use reference models as a starting point for designing, measuring and improving their processes. The reference models

are more relevant for decision making than financial statements because the metrics include both financial and non-financial metrics.

The Supply Chain Management Council has developed SCOR, the Supply-Chain Operations Reference Model (2006). This OPM model spans supply chain interactions and transactions from an organization’s supplier’s supplier to the customer’s customer. SCOR identifies five distinct management processes: plan, source, make, deliver and return. A distinct advantage of SCOR is that it contains three levels of process detail. Level 1 identifies types of processes and defines the scope and sets competitive performance targets. Level 2 configures the process categories for the organization’s supply chain. Level 3 defines process elements, performance metrics and best practices. A fourth level, implementation is outside the scope of the reference model. Two aspects of SCOR that are particularly useful for business reporting are the metrics and the process decomposition levels. The metrics provide accepted performance measurements that can be compared across organizations. The levels link implementation metrics to strategic performance targets. Identifying the levels can lead to transparency into an organization. The transaction processing that leads to the financial statements is at the lowest level. It shows the results of strategic and operational decisions, but does not describe the decisions and the environment in which they were made.

EXHIBIT 1
APQC PROCESS CLASSIFICATION FRAMEWORK
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American Productivity & Quality Center (APQC) introduced the Process Classification Framework (PCF) in 1992. As indicated on the website, “The PCF was developed by APQC and its member companies as an open standard to facilitate improvement through process management and benchmarking, regardless of industry, size, or geography. The PCF organizes operating and management processes into 12 enterprise-level categories, including process groups and over 1,000 processes and associated activities. The PCF, associated measures, and definitions are available for download at no charge at www.apqc.org/osb.” The PCF classifies processes as operating or as management and support. The PCF, like SCOR, views processes at multiple levels: process category, process group, process and activity. Despite the different nomenclature, the notion of levels from strategic to operational provides transparency into how managers in an organization make decisions.

ENHANCED BUSINESS REPORTING FOR ALL STAKEHOLDERS

While reference models, including the process metrics, are being extensively utilized in organizations, financial accounting ignores information generated internally until and unless it results in a ‘transaction.’ Building on the recommendations of the Jenkins Committee and the EBRC, concepts from BPM and OPM can be used to increase the relevance and reliability of published business reports. Non-equity stakeholders may include suppliers, employees, unions, customers, strategic partners, governments, local communities, and interest groups (Freeman 1984, Mintzberg 1999). While business reporting cannot address the entirety of the information needs of all these constituents, their interests can be better protected by enhanced business reporting.

The EBRC is a promoting party of the World Intellectual Capital Initiative (WICI), which was formed in 2007. WICI is a private/public sector partnership for improving the reporting of intellectual assets and capital and key performance indicators that are of interest to shareholders and other stakeholders. WICI has developed A Business Reporting Framework (BRF), which is similar to the AICPA EBRC Framework, which is summarized in Table 2. The EBRC Framework expands the recommendations of the Jenkins Committee by including the business landscape, strategy, resources and processes, performance and performance insights.

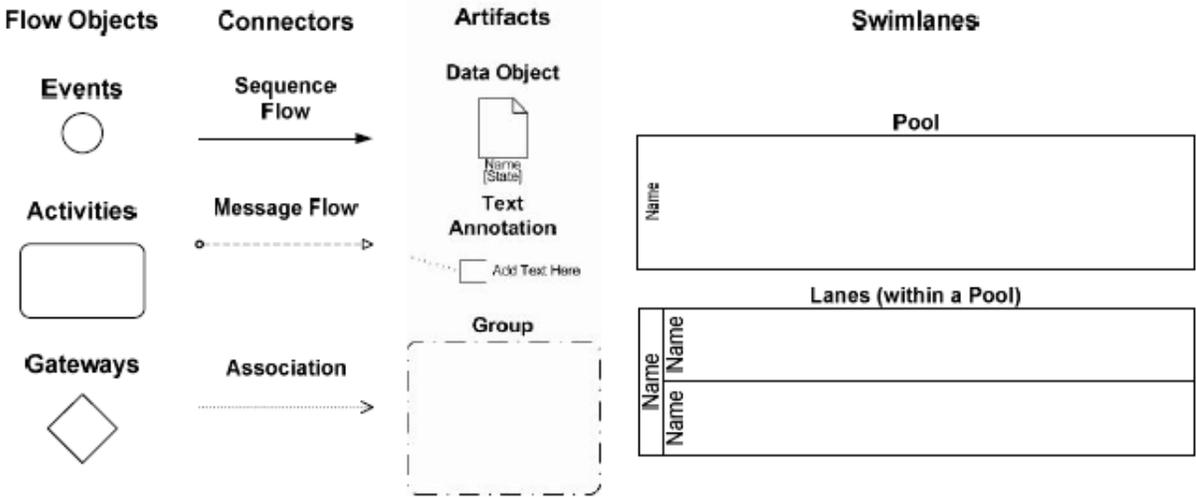
TABLE 2
AICPA ENHANCED BUSINESS REPORTING FRAMEWORK

Business Landscape	Corporate overview, including segments
	Economic environment, industry analysis, technological trends, political, legal, environmental, and social
Strategy	Vision and mission
	SWOT analysis
	Corporate strategy
	Goals, objectives and value drivers
	Business unit strategy
Resources and Processes	Business portfolio
	Resource form: monetary capital, physical capital, relationship (social) capital, organizational (structure) capital, and human capital
	Key processes to develop vision and strategy, to manage internal resources, manage products and services, manage external relationships, manage governance and risks

Performance	GAAP-based and GAAP-derived
	Industry-based KPIs including financial and non-financial
	Company-specific KPIs including financial and non-financial metrics
	Capital-market based KPIs including total return to shareholders and weighted average cost of capital
Performance Insights	Management discussion and analysis

While organizations use reference models as a starting point for designing, measuring and improving their processes, they can also be used as a starting point for enhancing reliability and relevance of business reporting to all stakeholders. They can increase reliability by increasing transparency into processes and decisions. Reference models provide standard classifications of processes at multiple levels of the organization. From the value chain level that identifies the interdependent processes that lead to the benefits and value to customer or client, each level drills down to additional details. For example, the Value Chain Group identifies strategic, tactical and operational processes, decomposed into activities and actions. The processes are diagramed using Business Process Modeling Notation (BPMN) or a similar graphical notation. Process model diagrams are simple visualizations similar to flowcharts. The elements of the notation fall into two main types: flow objects and connectors, as depicted in Exhibit 2. Two other elements are artifacts and swimlanes.

**EXHIBIT 2
BUSINESS PROCESS MODELING NOTATION**



Flow objects consist of activities, events and gateways. Activities are the work that is performed in the process. Events can signal the beginning or end of a process or something that happens during the course of the process. At the operational level, there is usually a trigger event that signals the beginning of the process, e.g., the receipt of an order from a customer. In the course of the process, events indicate specific circumstances that impact the normal flow of the process, e.g., a timer, a message, or an error. Gateways control how flows interact. They are analogous to decision points, e.g., credit approval or denial impacts the process flow.

Connectors directional arrows that depicts the sequence of activities, the flow of information, or an association between flow objects. Sequence flows describe the order in which activities are performed.

Message flows show the flow of messages between participants in the process. Associations are used to show how data is input to and output from activities.

The purpose of the above excursion into process modeling is to demonstrate that transparency into business activities and decisions can be achieved via modeling based on reference models. This transparency provides the basis for internal control systems that lead to the reliability of published reports. If an organization understands and models its business processes, it can design effective, efficient internal controls. While enhanced reporting will necessarily focus on aggregated information, the lower level processes and their controls have a significant impact on the reliability of that aggregated information.

Reference models can increase relevance through the utilization and reporting of metrics that impact outcomes. SCOR highest level metrics include, of course, those of interest to equity stakeholders, e.g., cost (cost of goods sold and supply chain management costs) and asset utilization (cash-to-cash cycle time, return on fixed assets and return on working capital). But SCOR metrics also include metrics related to vendors and customers, e.g., reliability (perfect order fulfillment), responsiveness (order fulfillment cycle time), and flexibility (upside supply chain flexibility and adaptability and downside supply chain adaptability).

Gartner, Inc., one of the world's leading information technology research and advisory companies, teamed up with the EBRC to identify and develop standard measures that are leading indicators of organizational performance. The metrics include demand management, supply management, and operational efficiency, which are three potential areas that could be useful to all stakeholders. Demand management includes metrics for responsiveness to change in demand, and product portfolio index, i.e., calculation of current and future needs of customers and the ability to meet those needs. Demand management also uses metrics to capture sales effectiveness and product development effectiveness.

Supply management includes measures of customer responsiveness and supplier effectiveness. Customer responsiveness metrics can include on-time delivery, material quality and service performance. Supplier effectiveness can be measured as a combination of on-time delivery of raw materials, material quality, and order accuracy. Operational efficiency refers to items measured in supply chain management activities. Operational efficiency uses metrics such as cash-to-cash cycle time and an asset utilization index,

SUMMARY AND CONCLUSIONS

While kudos are due to EBRC and other groups working on more relevant reporting for equity stakeholders, they are still ignoring non-equity stakeholders. We have proposed incorporating measures included in BPM and OPM to improve the usefulness of reported information to both equity and non-equity stakeholders. The EBRC should expand its scope of stakeholders and collaborate with other organizations that have already identified performance metrics that are relevant to non-equity stakeholders.

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