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Special Section: Toward a Theory of Business Process Change Management

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Guest Editors

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Information and Management, Database, Omega, Interfaces, Long Range Planning, Information Systems Management, Journal of Systems Management, and numerous others. He has recently co-edited a book entitled *Business Process Change: Concepts, Methods and Technologies*. Dr. Grover is the recipient of the Outstanding Achievement Award from the Decision Sciences Institute. He currently serves on the Editorial Review Board of the *Journal of Information Technology Management*, the *Journal of Management Systems*, and the *Journal of Market Focused Management*, and is an active referee for twelve other journals. He has also consulted with numerous organizations and is a member of TIMS, DSI, and AIS.

THIS SPECIAL SECTION COMES DURING A PERIOD of tumultuous change in business. Global competition, economic downturn, and the potential offered by emerging technologies are pushing firms to fundamentally rethink their business processes. Many firms have reached the conclusion that effecting business process change is the only way to leverage their core competencies and achieve competitive advantage. This belief has led to a near "reengineering frenzy."

Consultants, seeking to provide solutions to these issues, prescribe business process reengineering (BPR) as a means to reengineer aging processes to achieve strategic objectives. BPR practitioners typically repackage existing change theories and techniques from organizational behavior and design, information system management, operations research, quality and human resources disciples in a new synthesis directed at dramatic improvements in business performance.

While earlier cross-functional process redesign conceptualizations including Porter's [93] value chain analysis and Gibson and Jackson's [38] business transformation via information technology (IT) existed, it was the writings of both Davenport and Short [21] and Hammer [48] that triggered intense interest from both academia and practitioners in reengineering. Similar to the "classic" success stories touted on strategic information systems about a decade ago [64], early literature on BPR includes many examples of BPR successes, such as Ford, Hallmark, Bell Atlantic, Taco Bell [47], AT&T [45], Kodak [108], Texas Instruments, Merck and Cigna [104].

Despite the five odd years this phenomenon has been the rage, there is little research support for its effectiveness beyond anecdotal evidence. This is in part because no theory describing, explaining, and predicting the impact of BPR has been presented to guide the progress of empirical research. In fact, the role that this phenomenon has played in the formalization and advancement of management theory (or vice versa) remains a relatively unexplored topic.

Clearly, the purpose of radical process change (reengineering), as well as more incremental business process improvement approaches (continuous improvement), is the transformation of business processes. The desire to achieve such transformation has served to propel practice ahead of formalized theory. We believe that the formalization of the theoretical context of effective business process change management is essential for improved implementation and, more generally, to advance systematic inquiry in the field.

The goal of this special section introduction is to present discussion that moves toward a theory of business process change (BPC) management. The beginnings of such a theory are based upon both conceptual synthesis of observations from practice as well as drawn from research literature from several related social science disciples.

Our analysis leads to the conclusion that the theoretical basis of business process change should concern the creation of an organizational environment that develops a culture supportive of change through learning, knowledge sharing (including IT enablement), and internal and external network partnering which facilitates the implementation of effective process and change management practice, which leads to improvement in business processes and greater stakeholder benefits, both of which are important in achieving measurable performance improvements. Implied in this statement is the vital role that the strategic leader plays in establishing strategic initiatives such as communicating a vision to move the organization toward business process change and providing tangible support to enable and maintain an organizational environment that is receptive to BPC management practice.

What Is Business Process Change?

A BUSINESS PROCESS IS A SET OF LOGICALLY RELATED TASKS that use the resources of an organization to achieve a defined business outcome [21]. Business process reengineering [47], process improvement [49], process innovation [20], and business process redesign [21] are terms frequently used interchangeably to represent the phenomenon of "business process change." Examples of popular definitions of business process change propose it:

> is a methodological process that uses information technology to radically overhaul business processes and thereby attain major business goals. [2]
>
> includes overhauling of business processes and organization structures that limit the competitiveness, effectiveness, and efficiency of the organization. [102]
>
> is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed. [47]
>
> combines the adoption of a process view of the business with the application of innovation to key processes . . . [in order to] achieve . . . major improvements in . . . business objectives. [20]

Augmenting these definitions, we have observed an evolution of the reengineering concept over the past several years. The radical tone of the BPR definitions, as outlined above, has been somewhat tempered by a degree of contextual realism [9, 26]. Further, reconciliation with more incremental process change methods such as total quality management (TQM) [19], has resulted in the evolution toward a broader, yet more comprehensive process management (PM) concept [18]. Thus, the (r)evolution of BPR, the requirement to sustain process change, the need to reconcile alternative process improvement and innovation approaches, and the recognition of organizational constraints to implementation have all served to broaden the concept of business

process change, recognizing a need for the radical, the incremental, the continuous, and the contingent.

Because business processes cut horizontally across the organization, we can view BPC in an interrelated organizational subsystem context. This view suggests that we look at patterns of relationships between organizational subsystems affected in business process change [61, 72]. Past researchers [62, 69, 73, 124] identified the interrelated and mutually adjusting subsystems of organizational change as task, technology, people, and structure. Process thinking originated with the quality movement. Its focus of customers is consistent with the emphasis of early thinkers on minimizing variation of defects in manufactured products. Cumulatively adding to the theory of organizational change have been contributions on strategy (e.g., [10]), job design [43], organizational design (e.g., [35, 36]), organizational dynamics (e.g., [114]), and decision making and modeling (e.g., [105, 106]). In 1980, Nadler and Tushman [83] proposed a change model that described strategy input to a transformation process of interrelated subsystems including task, people, and formal and informal organization, leading to organizational, group, and individual outputs. In a similar model, Rockart and Scott-Morton [95] added the subsystems management processes, individual roles and culture, and information technology. In the "MIT90s Framework," Scott Morton [100] extended his earlier model by enlarging the role of culture and recognizing the importance of both intra- and interorganizational network relationships; in addition, the knowledge-sharing capabilities of IT were identified as having the capacity to change business processes and, possibly, fundamentally redefine the scope of a business [120]. Based on these contributions, a descriptive model of business process change is proposed (figure 1) that is strategy-driven and based on assessment of buyer/supplier network relationships, industry competitiveness, and economic and geopolitical conditions. This model contains transformational subsystems including business process (intrafunctional, cross-functional, or interorganizational); management (style, systems, and measures); information and technology (data, information, IT, and production technologies); people (values, skills, culture, behaviors); and formal and informal organizational structures including jobs, teams, and coordination mechanisms. The output of this model includes process products and services that may be measured in terms of cost, quality, customer satisfaction, or shareholder value. Although it is possible that a BPR projects may achieve breakthroughs in performance by only affecting one subsystem of the proposed process change model (e.g., a move from a hierarchical to a case-management structure), it appears more likely that the magnitude of change will be amplified, and outcome impacts (potentially both positive and negative) will be greater, as more than one subdimension is involved in the process change.

Thus, we define *business process change management* as a strategy-driven organizational initiative to improve and (re)design business processes to achieve competitive advantage in performance (e.g., quality, responsiveness, cost, flexibility, satisfaction, shareholder value, and other critical process measures) through changes in the relationships between management, information, technology, organizational structure, and people [65]. These initiatives may differ in scope from process improvement to

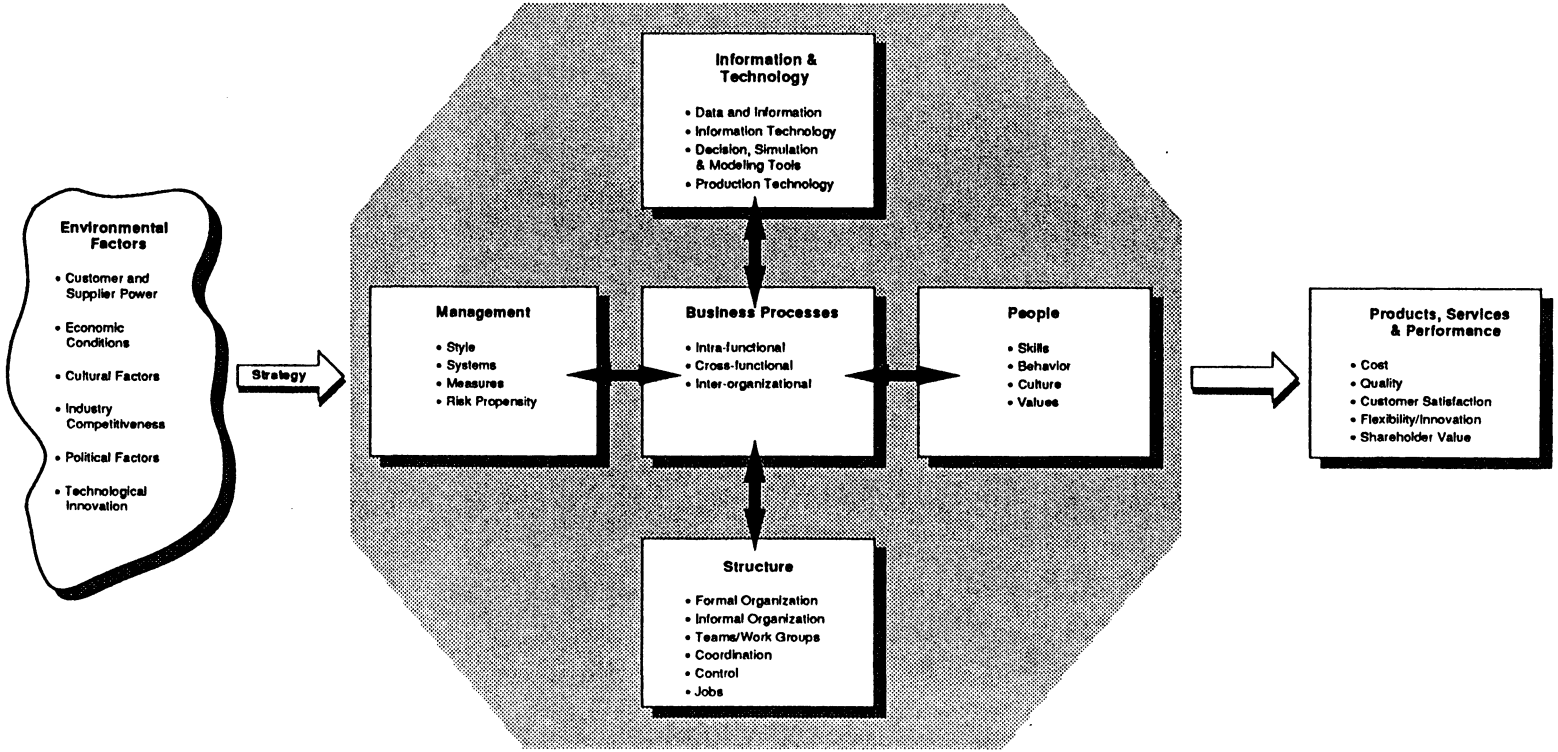

Figure 1. Business Process Change Model

radical new process design, contingent upon the degree of change undertaken in each organizational subsystem and their related systematic interaction.

Principles of Business Process Change

While the previous model provides a description of the high-level organizational components of business process change, it does not emphasize the causal relationships required in a theory of business process change. In this regard, we define a theory as a set of tightly interrelated constructs that explain a phenomenon or predicts an outcome. The following normative statements attempt to capture the generally held beliefs and values related to successful business process change; we recognize that these are not truisms and that differences of opinion do exist:

Principle 1: Business process change should be strategy-led with visionary leadership from senior management but, should also recognize the value of bottom-up participation of line workers and middle mangers in design, implementation, and continuous improvement.

Principle 2: Business process change should take care to ensure that resistance to change is minimized through an assessment of cultural readiness and effective change management.

Principle 3: Business process change should challenge existing assumptions concerning organizational systems and their learning capacity.

Principle 4: Business process change should leverage information technology's process, storage and communication abilities to facilitate knowledge sharing capability.

Principle 5: Business process change should manage relationships both intra- and interorganizationally. This requires deliberate design decisions related to the degree of cooperation and competition in network relationship balancing.

Principle 6: Business process change should use well developed methods, techniques and tools of process management to steward business processes through their life-cycles. These processes may be intrafunctional, but are typically cross-functional and/or interorganizational.

Principles 7: Business process change should range on a continuum of change outcomes from radical new process design to continuous process improvement depending on the contingencies at work.

Principle 8: Business process change should empower individuals and teams and, generally, improve the quality of work life.

Principle 9: Business process change should be customer-driven, with value defined as satisfaction and, where possible, success.

Principle 10: Business process change should result in significant measurable performance gains with direct effects on market share and/or profitability.

These "principles of process change" should be embraced by top management in its efforts to enhance organizational performance and competitive advantage. The elements in these normative statements traverse the boundaries of a single discipline to include such traditionally different functional domains of management as strategy (P1, P10), organizational behavior and psychology (P2, P3, P5, P7, P8), decision theory and information systems (P2, P3, P4, P5, P6, P7, P9), industrial economics and purchasing (P1, P4, P5), innovation (P2, P6, P7), organization design and human resources (P2, P4, P5, P7, P8, P9), sociotechnical design (P2, P6, P7, P8), quality and industrial engineering (P6, P7, P9, P10), marketing (P4, P5, P9), and finance (P10).

Is There a Theory of Business Process Change Management?

These ten principles represent a prescriptive set of interrelated rules of organizational behavior. The challenge is to discover an underlying theory of BPC management that may guide research and practice. We began the theory-formulation process with a detailed examination of what BPC is and how and why the effective adoption of the process change management methods would lead to the achievement of strategic results [99]. We next specified the relational linkages among the ten principles. Similar to an approach taken by Anderson, Rungtusanatham, and Schroeder [3], a relational diagram was constructed that attempts to delineate logical patterns by using unidirectional arrows to indicate cause and effect and bidirectional arrows to represent correlations. The proposed theoretical framework illustrated in figure 2 urges top managers to act as leaders in defining and communicating a strategic vision of organizational change. In such an organizational environment, culture, the willingness to share knowledge, balance network relationships, and learn, supports the implementation of such prescribed process management practices as process visioning, bench marking, process specification and mapping, activity costing, and statistical process control as well as such change management practices as open communication, user involvement, cultural assimilation, role playing, and training. Process and change management practices contribute to better business processes and help in attaining improved quality of worklife, both of which are requisite for customer success and, ultimately, in achieving measurable and sustainable competitive performance gains.

Supporting Concepts

Strategic Initiatives

PROCESS CHANGE TYPICALLY BEGINS WITH STRATEGIC INITIATIVES such as visioning, commitment, and enabling from the senior management team [70]. Top management is key in establishing innovative organizational cultures [42, 121]. Transformational leaders create a vision for the organization that generates commitment utilizing involvement-oriented management [46, 84]. This vision must establish a sense of urgency [70] and encourage the pursuit of change [118]. Champions of change seek

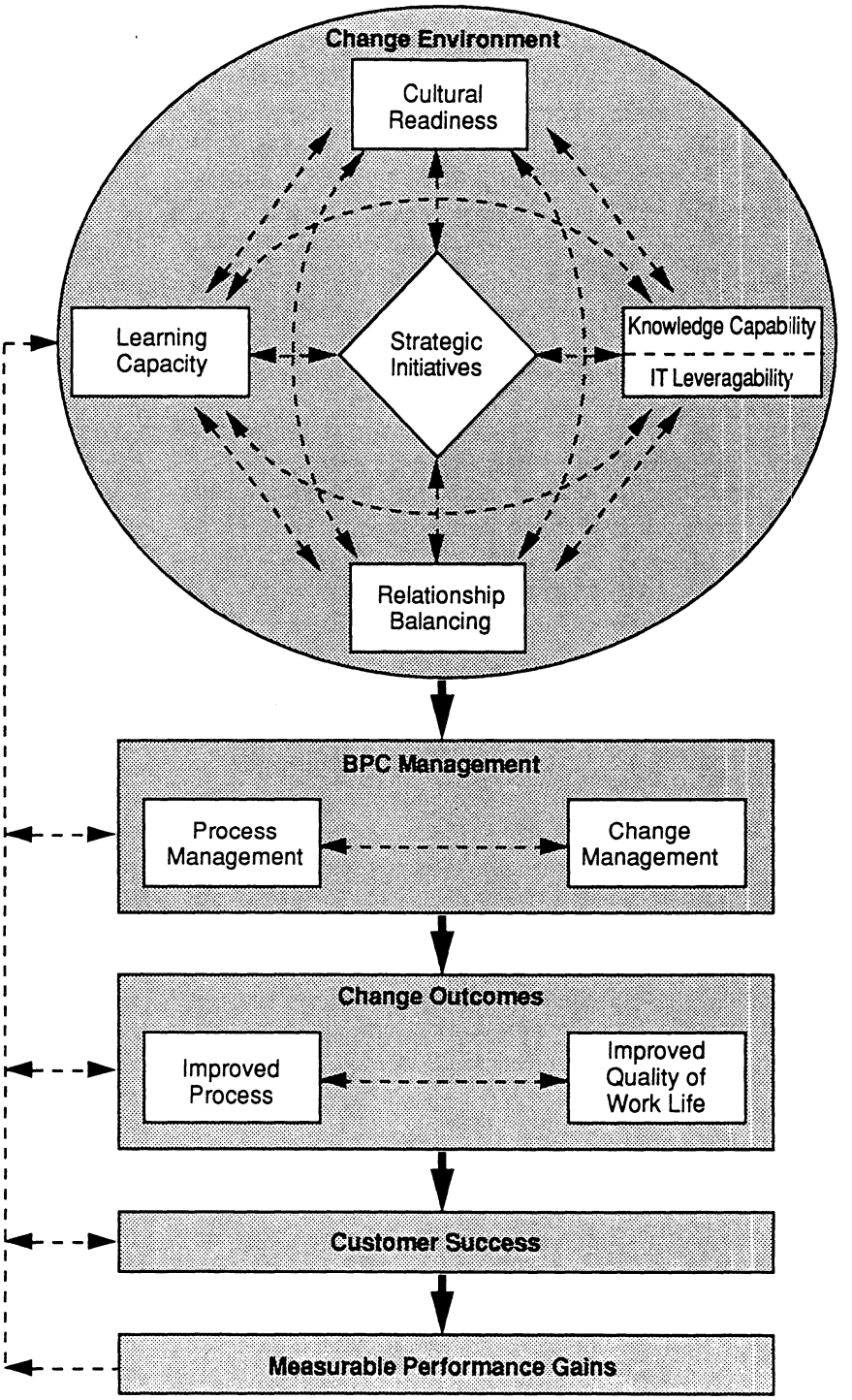

Figure 2. A Proposed Theoretical Framework of Business Process Change Management

out creative ideas and make them tangible [117]. They engage in coalition building in an information-intensive process of knowledge sharing and persuasion [7, 80]. In sum, leadership defines and communicates strategic initiatives that involve delineation of a strategic plan, helps ensure customer success through a specific plan of action, and then motivates the entire firm toward achievement of this goal.

Cultural Readiness

Organizational culture serves to integrate the organization by influencing its ability to learn, share information, and make decisions [66]. The importance of organizational culture is best understood in terms of cultural beliefs, values, and norms [66, 98]. At the highest level, an organization's beliefs represent the relationships between ideas and shape its interpretation of information and how it makes decisions. Value systems relate behaviors across units and levels of the organization, with values being shared by the organization as a whole or by distinct subunits. Values often exhibit a propensity to resist change because of their shared nature [32]. At the lowest level, norms are the unwritten and socially transmitted guides to behavior. Norms that promote change include: risk taking, openness, shared vision, respect and trust, high expectation for action, and a focus on quality [87]. Norms that discourage change include risk avoidance, ambivalence, group think, and excessive competition [87]. Looked at as a whole, cultural beliefs, values, and norms constitute an organization's cultural potency to influence behavior [97]. Thus, leadership that can diagnose and influence cultural readiness for change is requisite to an effective process change initiative.

Learning Capacity

Organizational learning occurs at both an individual cognitive level and as part of communication within organizations [75, 106]. Rather than bounded knowledge associated with formal groups sanctioned by the organization, successful learning organizations develop and utilize informal networks, both for knowledge acquisition and for learning processes [8]. In learning organization assumptions are surfaced and challenged [101]. To accommodate equivocality of information and uncertainty in cause-and-effect relationships, learning organizations undertake decision making in multiple cycles and with fewer rules [16]. First-order (single-loop) learning serves to maintain stable relationships and has a direct effect on establishing a business process' stability [71, 74]. First-order learning occurs through repetition, in a well-understood context, focusing on behavioral outcomes, and institutionalizes formal rules. In this way, single-loop learning maintains the organization's culture, seeking to detect and correct errors within a process [68]. However, learning also takes place through previous actions, not just by examining consequences. Second-order (double-loop) learning seeks out contradictions, in order to resolve them [75]. Rather than control, the quest for this knowledge is new understanding and revised theory [5, 92]. The detection of contradictions produces learning, resulting in changes in underlying beliefs, values, and norms. Through "unlearning" [51, 67], organizations can discard

obsolete and misleading knowledge. Thus, higher-level learning impacts the entire organization, develops understanding of causation and complex associations involving new actions, and is characterized by change in network relationships and decision making [31]. Successful learning organizations are characterized by diversity of knowledge, regenerative learning, and creative tension [101]. These properties facilitate knowledge sharing and application and establish committed, yet motivated, relationships, thus enabling movement toward a vision as embodied in business process change.

Knowledge-Sharing Capability

Information is a resource and its sensing, collection, organization, communication, and use are critical to the knowledge-based organization [76]. Information can be a source of power, justify ideologically based decisions, as well as symbolize adherence to norms [17]. Information is embodied in specific roles and relationships and distortion occurs in the form of power struggles and coalition bargaining [22]. Knowledge, the combination of learning and information, applied to a context, has a dynamic quality and is defined by individuals in shared and coordinated interaction. The strength and characteristics of individual and group ties impact knowledge transmission [96]. Knowledge-sharing capability can determine an organization's processes or structural form [35, 36, 68]. The capability of an organization to share and leverage knowledge as a whole facilitates its proclivity to change [11, 85].

IT Leveragability

IT is also an organizational resource, providing the necessary means to accomplish required knowledge processing and, thereby, induce organizational change [41, 47, 62, 77]. Zuboff [126] refers to the process of change caused by IT as "informating," with direct consequences on information flows, knowledge, culture, people, and tasks. For example, Johnston and Carrico [58] found that IT affected both organizational culture and organizational learning, which translated into action that continued to generate performance improvements in the value chain. IT may expand both the quantity of information flows and the characteristics of such information. Knowledge-sharing technologies bridge knowledge workers and can be decision-enabling with transparent data access, thus empowering individuals [41]. Kettinger et al. [64] found that in some cases strategic IT introduction combined with such resource competencies as information resources and learning resulted in sustainable competitive advantage. Davenport [20] explains IT process impacts in terms of organization streamlining/simplification, capturing and distributing, coordination, monitoring, analysis and decision making, and parallelism enabling process change.

Network Relationships Balancing

Organizations that successfully change processes creatively reengineer their value chain by proactively leveraging boundaries and relationships. This is typically the

result of balancing internal and external networks in terms of the dialectic of cooperation and competition [11, 85]. Literature suggests that under most circumstances cooperative interpersonal and group behavior results in superior performance [57, 103]. However, research also indicates that a manageable level of conflict can enhance individual and group performance. For example, competitive controversy within generally cooperative groups can result in greater openness, knowledge, and understanding [115]. In terms of interorganizational processes, literature indicates the benefits of "partnering" on a long-term cooperative basis with external suppliers (e.g., [15, 33, 44]). Resource dependence theory, however, presents an alternative formula for interorganizational relations [90]. Under this theory, firms are interdependent and seek to control others to minimize their dependency on resources, thereby increasing the ability to monitor and influence behavior. The resulting interorganizational relationship is competitive. Transaction cost theory urges organizations to lower transaction costs and to keep suppliers at a safe distance, often using short-term, market-based solutions as opposed to long-term cooperative relationships [122]. Clearly, organizations that recognize the need to continuously manage this competition and cooperation dialectic have a greater propensity to benefit from employee incentives and controls [27, 28] as well as to maintain profitable long-term relationships [94].

Process Management Practice

Process management (PM) is a set of concepts and practices aimed at better stewardship of business processes [18]. PM combines methodological approaches with human resource management [3, 65] to improve the quality of process product and services toward the goals of increased customer success. Implicit in the PM philosophy is the awareness and institutionalization of a process view ("process thinking") of the enterprise. Various methods, typically adapted from industrial engineering, total quality, and IS practice, have been used in process management [65]. From the Japanese quality movement, process management has benefited from techniques (e.g., seven quality control tools [55]) to better manage and control manufacturing (less equivocal) processes as well as from techniques (e.g., seven management and planning tools [81]) to represent concepts and relationships, such as the use of affinity and relationship diagrams, for less controllable processes. Continuous quality improvement and/or innovation has been a topic of universal interest (e.g., Total Quality—TQ [23, 59], process improvement [49]; Kaizen [54]; and Taguchi methods [112]). Use of these "system-oriented" methods in the execution of the "process quality story" through plan-do-study-act (PDSA) cycles is often undertaken for the dual purpose of process improvement and control. Adapted methods for more radical/BPR include process visioning and idea generation/creativity techniques [20, 47]; strategic linkage and process delineation [113]; process capture (e.g., IDEF0 [78]); customer requirements determination (e.g., Quality Function Deployment [1]); process modeling (e.g., IDEF [78], Role Activity Diagramming [52], Event-Driven Modeling [24]); process simulation [119]; process rules specification and data base design [4]); and process measurement (e.g., Customer Value Analysis [60]). Augmenting PM's methodologi-

cal approaches are a set of employee practices regarding individual and team work, including how work is designed [43] and levels of participation in decisions [12]. In this way, PM overlaps with sociotechnical design [29, 65] and is concerned with understanding the total work system's technical and social boundaries by identification of variances, analysis of social systems boundaries, values, formal and informal information flows, and employee skill levels. In this design, emphasis is as much on optimizing employee quality of work life as it is directly on process efficiency. These design philosophies push information to the point of decision making, seek multiskilled people, emphasize continual learning, and reinforce change as a constant [82]. In practice, PM typically supplements the traditional sociotechnical and TQ perspectives by including quantitative process goals such as output, productivity, costs, and profit measures [40].

Change Management Practice

Change management is effectively balancing forces in favor of a change over forces of resistance [107]. Organizations, groups, or individuals will resist changes that are perceived as a threat to their frame of reference. The sociotechnical change undertaken as a part of PM is often accompanied by a comprehensive change management program addressing required cultural shifts in beliefs, values, and norms. Incremental change is typically less traumatic, but fundamental BPC may require two- to five-year implementation programs [20], with successive rounds of reengineering and/or continuous improvement [65, 104]. Radical change and incremental change theorists have proposed a number of contrasting tactics for accomplishing change [110]. These tactics vary in the type of employee involvement, scope of communication for change, and the nature of leadership. In general, direct confrontation to forces of resistance will probably only increase resistance capacities [107]. Melone [80] suggests that in changing attitudes to mitigate resistance, theories of persuasion can be used to understand "how" and "what" messages persuade toward commitment and cultural assimilation. Open communication, direct design involvement, role playing, and training allow expression within the changed process context that gradually alters communicational meaning and impact, thus "reframing" frames of reference toward the desired process change. Goldstein [39] recommends "difference questioning," a resistance reduction technique that contrasts autopoetic identity and a targeted identity desired to surface information about alternative ways of achieving a goal. For example, both Ives and Mason [56] and Davenport [20] utilize assumptions surfacing and testing to challenge existing business processes on multidimensional fronts. Framing BPC as an "opportunity" contributes to an individual's sense of control, facilitates search and use of new information, contributes to internalized values of progressiveness, and focuses on the future [68]. Through use of simulations, critical incident techniques, "near" histories, and benchmarking, those affected can begin to function as a learning system, ultimately serving to create norms that promote and support the change [84].

Improved Process

Davenport [20] places continuous improvement and radical BPR along a continuum of process change. He suggests [19, p. 7] that both approaches share the same unit of analysis, require rigorous measurement of process performance such as cycle time, defects, productivity, cost, and the like, and "require significant organizational and behavioral changes . . . and . . . flourish in an environment intent on implementing operational change—rather than making quick fixes in financial results or organizational structure." Where BPC projects differ is in the degree of improvement sought (e.g., 10× levels of improvement may be the "stretch goals" of a BPR project versus 10 percent per year for an incremental improvement program). In addition, they differ in the extent to which the existing process is examined and improved—often ranging from detailed multilevel process capture and measurement to "clean slate" or "green field" BPR [47] that virtually ignores current operations in favor of a new discontinuous change option. Yelle [123] suggests that incremental improvements are heavily based on learning effects, with employees' experiences leading to actions to make processes less variant over time. Deming's philosophy of continuous improvement means "better and better quality, less and less variation, which results from process management practices that bring forth incremental improvements . . . create a chain reaction, which links higher quality to lower costs and higher market share, implying more satisfied and loyal customers, which provides organizations with the rationale for engaging in continuous improvement" [3, p. 488]. Parasuraman, Zeithaml, and Berry [89] extended this continuous improvement philosophy to the burgeoning service sector. Discontinuous or radical change suggests that innovations come through paradigm shifts, interventions, and creativity [37]. Beyond the popular BPR literature, it is the innovation research that provides the most insight on the conditions surrounding radical change success (e.g., [25, 30, 86]). However, research on radical innovations has not focused on success factors for radical "business process" change [40]. Rationally, the extent of performance improvement sought and process change desired should influence the process and change management methods and techniques employed. In adopting a process management philosophy of "process stewardship" throughout a business process's life-cycle, even radical/BPR-designed processes must be managed with continuous improvement to maintain their health until such time that they are either retired or reengineered [65].

Improved Quality of Worklife

Many leading firms that undertake BPC to meet strategic goals recognize that they can only accomplish their objectives through people and, therefore, are making employee quality of worklife (QoWL) issues paramount in their BPC expected outcomes. Having recognized human needs during socio-technical design, and having managed resistance to change at a part of BPC management, employees should experience improved working conditions in redesigned process tasks; this should increase employee job satisfaction and pride in work, and should strengthen commit-

ment to the organization [13], ultimately making employees more productive in their jobs and better able to serve their customers. Such a seemingly simple premise lies at the heart of the now famous AT&T GBCS process reengineering project [45]. At the redesigned AT&T GBSC, the first three of six strategic principles are: (1) "make people a key priority," (2) "win customers for life," and (3) "use a process approach to run the business" [90, p. 61]. Each of these principles is a part of their "Value Equation" which linearly links Associate (employee) value to Customer value to profitable growth and Shareholder value, which in turn links back to Associate value. Associate value is achieved by ensuring that employees have knowledge and skills to do their job effectively, have the ability and accountability to satisfy customers, and are extremely satisfied with their daily worklife and career. Customer value is achieved by ensuring they are provided superior products and services—that their expectations are met and they are "delighted" by what they receive. In this respect, QoWL values must be incorporated in incentive and development systems. Embedded in the QoWL concept are "Theory Y" assumptions that people "like" to work, "enjoy" challenging work, and are willing to "take responsibility" for work outcomes [79]. An improved process should allow employees to learn on the job, have an area of decision making, relate their work to a social life, and feel the job leads to job satisfaction [43] and a desirable future [82]. If these conditions are met, an employee would be more motivated to expend energy on organizational tasks and to provide high process, product, and service quality to satisfy an organization's customers [3].

Customer Success

In the late 1970s, process quality experts such as Crosby [14] defined quality as conformance to customer requirements, but in the mid-1990s Crosby [15] reports that conformance to customer requirements is a given, not something that bears a competitive advantage. Increasingly, the key is to exceed customer expectations, thus "delighting" and ultimately delivering products and services that help ensure a "customer's success" [15]. Such a philosophy is reflected in the AT&T "Value Equation" [90]. To accomplish this level of "customer intimacy" [116], competitive intelligence gathering information systems [34, 56, 63] must be built that provide constant examination of the "entire customer transaction" and "informate" empowered employees performing redesigned process tasks. This transition in customer measurement philosophies implies that monitoring of technical (output) process quality is a necessary, but not always a sufficient, condition to achieve customer satisfaction and that overall perceived satisfaction involves attaining functional (expressive) quality as well [111]. In marketing consumer research, satisfaction is characterized as a post-use evaluation of product or service quality given pre-use expectations [88]. Accordingly, satisfaction judgments are a function of the baseline effect of expectations plus any perceived disconfirmation of expectations [6]. Building on this conceptualization of satisfaction, process quality might be conceived as a comparison of customer process product and service expectations with perceived performance. In this sense, if perceptions exceed expectations, one can say that a

customer considers the process to be of high quality [63, 89]. In general, lessons from this line of research suggest that "a customer-first philosophy" is vital. This approach assumes that customers are able to articulate their expectations and that process quality does not improve unless it is measured. Since firms do not hold customers captive, the only way to prevent defections is to continually outperform the competition by developing a greater understanding of customers' needs. By intelligence gathering and then anticipating customers' requirements, firms can exceed customer expectations and, thus, delight customers [34, 63]. These actions will result in return customers and market share growth.

Measurable Performance Gains

It has been long recognized that measuring the "bottom line" effects of change initiatives is both difficult and necessary [125]. Ultimately, these effects should provide two sources of benefits to the firm: increased profit margins and increased market share. Market share has been demonstrated empirically to be a key factor affecting performance [50] and profitability measures conform to accepted measures of competitive advantage [93] typically sought when undertaking BPC. Popular literature seems to indicate that tremendous financial impacts can result from BPC management (e.g., [109, p. 60] outlines the high payoff of the AT&T GBSC case cited here). While arguments have been made throughout this proposed theoretical framework as to the proposed relationships between BPC and process efficiency, process cost reduction, customer success, and market share growth, little scholarly work has conclusively demonstrated these relationships. Nor has research seriously investigated the relationship between investment in BPC management and financial performance benefits.

Propositions and Directions for Research

BASED ON THE DISCUSSION ABOVE, SOME BROAD PROPOSITIONS are listed in order to guide future inquiry into this phenomenon:

Proposition 1: An environment that facilitates change requires strategic initiatives, knowledge sharing, learning, balancing of network relationships and a change receptive culture.

Proposition 2: A culture that simultaneously fosters knowledge sharing, learning, and balancing of network relationships facilitates good process and change management practice.

Proposition 3: Good business process and change management practice results in desired business process change as well as improved quality of employee worklife.

Proposition 4: An organization that simultaneously improves its business process products and services and empowers and satisfies its employees will improve customer satisfaction and success.

Proposition 5: An organization that has customers satisfied with its products and services, and helps them succeed, will improve its financial performance.

The theoretical framework presented is simply a modest attempt to provide a systematic view that describes and explains the effectiveness of business process change management. The proposed framework is grounded in existing literature and observation of practice. As such, it provides a road map for the identification and development of concepts, constructs, variables, and relationships, all of which are necessary for theory development. Other researchers are encouraged to critically examine the model, as well as other approaches to business process change. It is through such inquiry that more enriched and unified theories will evolve.

Articles in this Special Section

THE ARTICLES COMPILED IN THIS SPECIAL SECTION OFFER such variety in their treatment of this topic that functionalizing them by imposing a rigid structure on their organization might undermine the integrated nature of the phenomenon being examined. While primarily descriptive, they collectively go beyond existing anecdotal evidence and attempt to explore data for underlying patterns with broader theoretical implications.

In the first paper, entitled "Strategies for Business Process Reengineering: Evidence from Field Studies," Michael J. Earl, Jeffrey L. Sampler, and James E. Short examine the strategic nature of the BPR phenomenon by proposing a process alignment model. This model suggests alignment between process, strategy, information systems, and change management. Four case studies on BPR initiatives are explored and, based on patterns along the domains of the model, four distinct strategies for BPR are defined. By recognizing the "gestalt" effect of different variables, the model provides a richer conceptualization of alternative ways to accomplish BPR and alerts researchers to the differing role of IS and the presence of organizational contingencies.

In the second paper, "Managing Information about Processes," Thomas H. Davenport and Michael C. Beers address issues and practices concerning the use of information in process management. The authors describe two "learning" loops of process information, a performance loop and a relevance loop. The former requires information within the context of the existing process while the latter questions the relevance of the process to the environment. Structured interviews in twenty firms with strong programs in process improvement are described. The discussion describes leading practices of these firms within the context of a process for managing process-based information. This study alerts researchers and practitioners of the importance of formally devoting attention to process information as a part of the broader domain of process management.

The third paper, "Business Process Redesign: Tactics for Managing Radical Change," by Donna B. Stoddard and Sirkka L. Jarvenpaa studies change management in three organizations. The authors define tactics prescribed by change theorists for both evolutionary and revolutionary change. Their observation of the use of these

tactics in the three cases suggests that reengineering might not necessarily need a revolutionary approach to change. In the cases with the most radical planned outcomes, evolutionary change tactics were used in later phases of the project. This study further alerts us to the differing contexts within which change occurs and to the need to examine the alignment between change management initiatives and the type of change attempted.

Finally, the fourth paper, "The Implementation of Business Process Reengineering" by Varun Grover, Seung Ryul Jeong, William J. Kettinger and James T.C. Teng provides one of the first postmortem analyses of the implementation efforts of 105 BPR initiatives. Drawing extensively from literature in implementation, organizational change, and reengineering, the study identifies a set of sixty-four potential problems with implementation. These problems are categorized and data gathered on the severity of these problems and on implementation success. The results demonstrate the central importance of change management that exhibits high problem severity and strong relationships with success. The study also emphasizes the importance of sociotechnical approaches to change and reveals prescriptions for practice and rich avenues for future research.

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