CAN PUBLIC MANAGERS LEARN FROM TRENDS IN MANUFACTURING MANAGEMENT?

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ABSTRACT

A contested issue in public management is how to manage government operations. Treatments of this topic are mostly concerned with what-to-do questions. One way to engage or formulate them is to borrow conceptual frameworks from the business process management school of thought that has become important in the practice of public management. This school of thought focuses attention on the processes by which inputs of various kinds are transformed into goods or services utilized or consumed by downstream agents such as end-users.

INTRODUCTION

The business process management school of thought has its strongest roots in the field of industrial engineering (Barzelay, 2002a: 1). Since manufacturing management has mainly been developed and used in the private sector, it is thus fair to examine some of the discipline's principal ideas to determine its relevance to public managers. In this essay, public managers are essentially general managers or individuals charged with managing a whole organization or multifunctional subunit. This definition is consistent with the Barzelay and Campbell definition of senior management that applies primarily to office-holders situated in what organization theorists call the strategic apex; the term sensibly covers executives heading major operating units as well as leaders of planning and budgeting staffs (Barzelay and Campbell, 2002: 57).

The debate will be structured around a three-part framework – concept, context and content (the three-Cs).[i] First, I will employ metaphorical mapping (concept) to compare attributes in the source and target domains and determine whether it is valid to borrow concepts. On another level of abstraction, I will compare the different operating environments (context) of the public and private sectors. How does this affect the transferability of manufacturing management approaches to the public sector? Then drawing on doctrinal beliefs in public management, I will analyze the utility of manufacturing principles (content) in managing government operations. Let us now first highlight the main characteristics of manufacturing management.

AN OVERVIEW OF MANUFACTURING MANAGEMENT

Manufacturing management differentiates between "big M" and "little m" manufacturing. The high-level orientation of "big M" manufacturing includes product design, process development, plant design, capacity management, product distribution, plant scheduling, quality control, workforce organization, equipment maintenance, strategic planning, supply chain management, interplant coordination, as well as direct production – "little m" manufacturing – functions such as cutting, shaping, grinding, and assembly (Hopp and Spearman, 1996: 3). Moreover, a manufacturing system is an objective-oriented network of processes through which entities flow. Management of

this flow – the individual processes and entities as well as their interactions – is a major part of a manufacturing manager's job (Hopp and Spearman, 1996: 190).

In this essay, an operations viewpoint will be adopted. In a broad sense, the term "operations" refers to the application of resources (capital, materials, technology, and human skills and knowledge) to the production of goods and services. An operations viewpoint is the middle ground, representing a balance between high-level integration and low-level details (Hopp and Spearman, 1996: 3). Furthermore, the operations view focuses on the *flow of material* through a plant, and thereby places clear emphasis on most of the key measures by which manufacturing managers are evaluated (throughput, customer service, quality, cost, investment in equipment and materials, labor costs, efficiency, etc.). (Hopp and Spearman, 1996: 4)

Today, rapid technological change and smaller profit margins have changed the way businesses operate. The importance of operations to the health, and even viability, of manufacturing firms is greater than ever due to global competition in the following three dimensions: unit cost, quality and speed (responsive delivery and rapid development of new products). Therefore, the role of operations in each of these factors will form an integral part of our discussion later on.

CONCEPT

Metaphors provide cues about how to think about complex or abstract concepts, such as government. The overarching metaphor "government is a business" thus gives rise to a whole set of metaphorical mappings from *business* to *government*. For example:

Business (Source Domain)	**Government** (Target Domain)
Business firm	The Executive Branch
Chief Executive Officer	The President
Profit motive	Serving the public interest
Manufacturing	Operational activity

The mapping of manufacturing onto operational activity implies that government operates efficiently if it divides the work of performing functions into narrowly specialized tasks, assigned as duties to qualified officials – who are to be held accountable by their superiors for carrying them out (Barzelay, 2002b: 1-2). Barzelay (2002b) believed that the "government is a business" metaphor encouraged the idea that public administration is mainly a technical activity and that if properly organized and conducted, would make government capable of economically and efficiently performing public functions (2).

Building on this basic mapping, a more detailed metaphorical mapping from business onto government incorporates the espoused standards of good public administration reflected in the late 20th century ideals of business practice (Barzelay, 2002b: 2). A great many of the concepts, principles and practices of manufacturing were mapped onto operational activity in government:

Business (Source Domain)	Government (Target Domain)
Manufacturing	Operational activity
Performing functions	Performing functions
Executing specialized tasks	Executing specialized tasks
Product	?

The metaphorical mapping from business to government was, however, incomplete in this crucial respect of product (Barzelay, 2002b: 3). The difficulty lies in that the product and production aspects of the manufacturing metaphor do not fit many government operations. Even the proximate results of government's operational activities are typically intangible. Furthermore, to produce them often requires significant cooperation from users of government services as people are asked to comply with regulatory or other requirements. As a result, pursuing further the operational activity-as-manufacturing metaphor has limitations in many situations in government. (Barzelay, 2002b: 4).

It should be noted that there are striking differences between manufactured and service products, on the one hand, and manufacturing and service delivery on the other. Barzelay (2002b) proposes that a better metaphor is "operational activity is service delivery" because it takes into account the intangibility and co-production aspects of service delivery, characteristics also inherent in government services. Based on specialized theories of service management that have evolved, the mapping may be revised as follows (4):

Business (Source Domain)	Government (Target Domain)
Service delivery	Operational activity
Services	Programs
Service enterprises	Program organizations and agencies

The operational activity-as-service delivery metaphor is an improvement over the operational activity-as-manufacturing metaphor. There is relative similarity between typical operational activities in government and the characteristics of service delivery. Therefore using the metaphor can yield systematic ideas about how to improve government operations. Armed with an enormous amount of knowledge about service delivery from our everyday experience as citizen-consumers, we are also in a better position to appreciate the nature of government operations (Barzelay, 2002b: 5).

Conceptually, therefore, the metaphorical mapping that "operational activity is manufacturing" has its limitations. Taking into account the nature of service delivery seems to be a more fruitful way to conceptualize public service. Equipped with this understanding, I will now examine the contexts in which public and private organizations operate.

CONTEXT

The question whether a private sector approach is a viable option for the public sector naturally hinges on the scope of the two sectors - whether their operating environments are sufficiently similar to warrant transferability of practices. As Pollitt (1990) puts it, the "uniqueness" of the public sector is crucial (126).[ii]

One argument is that management is the same everywhere and that the public and private sectors are sufficiently similar for expertise to be readily transferable. Particular managers may regard themselves as professionals in that area with their current employment in the public or private sector being relatively unimportant (Hughes, 1994: 256).

Nevertheless, Stillman (1996) asks the all-important question:

Is government like business? Can the public sector, in fact, be run like the private sector? Indeed it is a critical question for the field as a whole, for if public and private management are the same in scope, purpose, and process, why do we have the separate field of public administration and, therefore, public administrators? Why not simply teach and practice "administration" without distinguishing between "public" and "private"? This issue goes to the heart of the intellectual discipline and the professional practice of our field. (290)

Along a similar vein, Allison (1984) reasserts the frequently quoted "law" from the late political scientist Wallace Sayre, which maintains that public and private management are fundamentally alike in all unimportant respects (291).

Much of the literature in public management has put forward the various unique attributes of public organizations.[iii] Hughes (1994), however, contends that some of these are differences of emphasis or of practice and not *fundamental* differences of kind. Nevertheless, there are some major differences that affect the way the public sector can be managed (257). In general, three characteristics inherent in public organizations account for the major differences between the public and private sectors:

Use of Public Authority

Unlike the private sector, the public sector often uses public authority in performing its functions. Citizens can be forced to comply with decisions, pay taxes, have their property compulsorily acquired, and are subject to sanctions deriving in the end from the coercive powers of the state. This coercive element also calls for fair and equitable treatment and restricts how far the public can be regarded as clients or customers. The coercive element, however, is not present in the private sector, at least in legal activities. On the contrary, private enterprises have great freedom to be *arbitrary*. They can charge different customers different prices, they can refuse to deal with them, and they can ignore normal procedures (Hughes, 1994: 257).

Difficulties in Performance Measurement

The goal of the public sector is to create public value while that of the private sector is to pursue profitability. However, in government there is rarely agreement on goals or measures of them. As a consequence, measurement and evaluation of efficiency are

more difficult and perhaps less meaningful. The lack of suitable measurement may even enable parts of the public service to perform no useful function and to evade scrutiny. This might occur in the private sector but is much less likely. The reason is that the bottom line is generally accepted as an objective measure in the private sector. Despite the variation in goals, an overall agreement on the standards of performance, such as financial return and market share, does provide something in the private sector for managers to aim towards or to be judged against (Hughes, 1994: 258-9).

Political and Organizational Constraints

Public-sector organizations typically operate in fluid, highly politicized environments (Cohen and Brand, 1993: 61). As Moore (1995) observed, "close, continuing oversight by elected executives, legislatures, the media, and interest groups sharply limits their discretion (63). Politicians may require action that detracts from good management practice or may require administrative actions for quite blatant political reasons. Having a large part of the agenda imposed by the political leadership reduces the scope of action of a manager. In particular, public organizations are often more highly constrained in selecting goals and customers whereby choices are often made in advance by elected officials (Cohen and Brand, 1993: 62). In addition, many government functions, especially those pertaining to regulation and policy-making, are assigned because private firms are unwilling or unable to perform them. For example, private firms may be interested in delivering mail to crowded cities, but may not be interested in delivering to unprofitable rural areas; they can collect garbage, but they cannot arrest criminals (Cohen and Brand, 1993: 12). Furthermore, control and coordination within the public sector is a challenge because of its sheer size and diversity. There is often overlap, even conflict, between programs. For example, programs may exist to support tobacco farmers from one department, while another tries to reduce smoking for health reasons (Hughes, 1994: 259). All this is very different from an organization where the shared motivation at all levels of the organization is to make money (Hughes, 1994: 258). In short, there are many more constraints and complexities in the public sector than in the private sector.

Thus it must be concluded that there are major differences between the sectors. As Allison (1984) contends, "public and private management are at least as different as they are similar, and the differences are more important than the similarities". Furthermore, he believes that massive borrowing of specific private management skills and understanding will not bring about improvement. Instead, the prospect of substantial improvement comes from recognition of and consciousness about the public management function (303).

Hughes (1994) concurs that there may be fundamental differences between the public and private sectors. Nevertheless, despite that it is not useful to merely transfer private management techniques to the public sector, this does not mean that techniques or theories deriving from the private sector are irrelevant to the public sector (67). Parry (1992) takes Hughes' point further by stating that, on closer examination, the fundamental differences remain high-level factors which do not necessarily bear very heavily on day-to-day tasks (6). Thus while it is valid to recognize the distinctiveness of approach and technique that the public sector requires, the important thing is not to use the structures of political accountability as an alibi for an immobile and precedent-bound approach to public business (13).

As Barzelay (2002a) sums it up, because of the arguable duty to create public value and the circumstance of using public authority, we need to adapt the conceptual schemes of the business process management school of thought to the context of public management (2). The debate will now proceed on a more specific level as I turn to explore the applicability of the principles and techniques derived from this school of thought to the public sector.

CONTENT

Moore (1995) argues that in envisioning public value, managers must find a way to integrate politics, substance, and administration (22). Moreover, managers need an account of the value their organizations produce. Each day, their organizations' operations consume public resources. Each day, these operations produce real consequences for society – intended or not. Failing to account for the value of these efforts, the legitimacy of their enterprise is undermined and with that, their capacity to lead (57). Therefore, managers must design the particular operations through which the products, services, and obligations will be produced. This is the task of production engineering (212).

Hopp and Spearman (1996) observed that many have come to view manufacturing management in terms of a blizzard of management buzzwords, as for example, MRP, MRP II, ERP, JIT, CIM, FMS, OPT, TQM, BPR (186). Although some of the recent solutions have been adopted for the wrong reason – what Hopp and Spearman (1996) noted as "management by buzzword" (6) – their value need not be discounted because of misuse. In addition, notwithstanding trends may come to pass, they have diffused widely, have produced sustainable competitive advantages, and are still being used. The just-in-time (JIT) approach that permitted Toyota to rise from obscurity to a position of a worldwide automobile leader is a good example (5). Therefore, before dismissing these trends as transient, they may be worthy of our attention insofar as improving operational performance is concerned.

The ideas behind these approaches are similar, namely, emphasis on the dimensions of cost, quality and speed; recognition that performance problems reside in business processes; and achievement of improvement through describing (mapping) business processes, controlling processes, and measuring performance. The three dimensions of cost, quality and speed are crucial to improving operational performance. Improving speed (short cycle time) is associated with increasing quality and reducing cost. Increasing quality and reducing cost in turn relate directly and positively to economic value because buyer preferences are stated in terms of quality and price.

Recent manufacturing trends attempt to create benefits for the customer, and ultimately the firm through repeated sales, by providing solutions to manipulate the three dimensions mentioned above. Among the various trends, lean manufacturing (just-in-time) and total quality management (TQM) are two important approaches in manufacturing management. Their practical value in enhancing operational performance will be discussed with reference to their impact on cost, quality and speed.

Lean Manufacturing (JIT). A central theme of lean manufacturing is the elimination of *muda* (waste) through efficient utilization of labor, material, and equipment. An important part of lean manufacturing is to identify the "value stream". Womack and

Jones (1996) define the value stream as "the set of all the specific actions required to bring a specific product through the three critical management tasks of any business: … problem solving, … information management, … physical transformation." (Moore and Scheinkopf, 1998: 17) Essentially, the products that are waste (those that customers do not want) and products that are value (those that customers want to buy) are identified. Once this has been completed, the waste involved in providing the products that are value to customers will also be identified and removed (Moore and Scheinkopf, 1998: 16-17). "Target costing" is implemented whereby the cost of a product is established based on its "muda-free" process. As the company moves closer to the target cost through the elimination of muda, the company also benefits from lower costs and higher profits in production (Moore and Scheinkopf, 1998: 18).

As Barzelay and Campbell (2002) emphasized, process is instrumentally valuable when it contributes to performing a function (7). Therefore, by describing the situation in terms of the design and operation of business processes, a company gains insight into how to manage government operations (Barzelay, 2002a: 2). In order to document the process, lean teams will physically walk the process, noting the distance the product must travel in order to go through its entire process. The purpose is to achieve *rapid product flow* (Moore and Scheinkopf, 1998: 18).[iv]

Moreover, lean enterprises implement what is called 5S, [v] a methodology used to reduce the slack hidden in plants (Monden, 1996: 199).[vi] Furthermore, inventory is also minimized because anything not sold is considered waste as well (Moore and Scheinkopf, 1998: 18-19). The waste takes many forms and can include delays resulting from poor instructions, rework, callbacks, and constant calls for clarifications (Cohen and Brand, 1993: 30).

An example of a government operation with room for eliminating waste is the treasury section in Andalusia.[vii] Some 250 phone enquiries and numerous visitors per day were made to the treasury section. Frequently, confusion over invoices triggered the enquiries and complaints. Attending to these tasks was basically non-value added, but vacuumed time out of the workday of staff. Moreover, late payment to vendors had an adverse effect on their cash flow. This would undermine the competitiveness of industries in the market, not least the treasury section's capacity to create public value. While following standard operating procedures (SOPs) eliminates variations in tasks performed repeatedly by different people (Cohen and Brand, 1993: 71), they do not eliminate waste as defined by lean manufacturing. Over time, SOPs may be valued by an organization for what they are rather than for what they do (Cohen and Brand, 1993: 60). In the case of paying the bills in Andalusia, it would be useful to consider the principles of lean manufacturing to reduce cost, shorten response time and increase service quality.

Total Quality Management (TQM). Cohen and Brand (1993) clarifies the misconception that TQM can only be used on factory production lines. In fact, quality improvement teams can be particularly useful in administrative settings, both in and out of government (25). They do not, however, argue that the ideas in TQM are particularly new or revolutionary, nor is the emphasis on being customer-driven unique (55). Nevertheless, TQM does synthesize important management lessons, thereby creating a useful and consistent management paradigm (xviii). The essential core concepts of total quality management can be reduced to three elements:

1. Working with suppliers to ensure that the supplies utilized in the work processes are designed for your use.

2. Continuous employee analysis of work processes to improve their functioning and reduce process variation.

3. Close communication with customers to identify and understand what they want and how they define quality. (18)

As Hopp and Spearman (1996) explain, "manufacturing is more than just machinery and logistics – it is people, too." (10) The people emphasis is arguably the most distinct feature of TQM. According to Deming (1986), managers must "drive out fear from the work place" (59).[viii] This is a crucial step in encouraging employees to participate in analyzing work processes. Since they are the people who do the work, they know more about how it is conducted than any "expert" who observes the work as a consultant or analyst. Their input therefore is most valuable. In addition, worker self-analysis has a number of critical advantages, including encouraging creativity, increasing morale, and fostering greater commitment to the organization (Cohen and Brand, 1993: 24).

With regard to customers, it is widely accepted by businesses that a firm's customers are the final judges as to whether or not the firm has created value (Moore and Scheinkopf, 1998: 16). By the same token, Moore (1995) states that we could estimate the value of the organization by gauging the satisfaction of those who interacted with the organization as clients or customers (22). He defines value as follows:

Public value is created in the satisfaction of overseers met at the reporting end of their organizations as well as in the satisfaction of clients met at the business end of their organizations. (210)

"Overseers" can be interpreted as citizens and their representatives, while "clients" refer to the end-users of public services.

The satisfaction of customers is paramount and failure to achieve customer satisfaction will have serious consequences. Customers in the private sector will not choose a service provider if they are not satisfied. But how can a public sector organization lose customers because government appears to be a monopoly with an inexhaustible supply of captive customers? Despite that clients and overseers often have no choice; the loss could essentially be in the form of being denied resources and personnel or being bypassed on work and decisions (Cohen and Brand, 1993: 31).

As in the case of managing student aid in Sweden,[ix] CSN was granted three-year rather than one-year budgets, which makes CSN the recipient of redistributed financial resources. One plausible source of funds would be from an agency where performance is substandard and hence justifying the denial of resources mentioned above. With respect to employee participation in process analysis, CSN succeeded in creating an environment conducive to open discussion. Brainstorming sessions, management retreats, and an open door policy were in place to encourage creativity. A customer-focused strategy was also pursued as reflected in the quick turnaround time in processing applications (speed), the negotiation of student discounts with suppliers

(cost), and the provision of comprehensive assistance to students studying abroad (quality).

It is increasingly the case that government agencies are expected to produce better service with the same or fewer resources, not unlike the situation faced by CSN in the two percent cutback in administrative costs. By employing the principles of TQM, a public organization may be in a better position to shorten response time, reduce cost, and increase quality for the ultimate purpose of creating public value.

A STRATEGIC PUBLIC MANAGEMENT APPROACH

Notwithstanding the merits of the various trends in manufacturing management as highlighted above, there are still doctrinal issues in public management which would weaken the argument that the business process management school of thought is unequivocally valuable to managing government organizations. In fact, since the senior manager is situated at the strategic apex, one may think that strategic management is of much greater relative importance to executive leadership in the public sector than business process management.

As Barzelay and Campbell (2002) pointed out, public managers, given their institutional position, bear responsibility for crafting organizational strategies that exploit opportunities to create public value (58). It is therefore appropriate to consider at this point the issue of whether manufacturing management does contribute to strategic management and is thus relevant to the public manager. A distinctive approach within the doctrine of strategic management is the notion of preparing for the future (59). Since the approach is predominately concerned with the role of senior management within governmental bureaus (57), contrasting these ideas with those of business process management will illuminate the issue of whether manufacturing management does facilitate the public manager to fulfill his role effectively.

The concept of preparing for the future is emphasized by Hamel and Prahalad (1994). They opined that what prevents companies from creating the future is an installed base of thinking – the unquestioned conventions, the myopic view of opportunities and threats, and the unchallenged precedents that comprise the existing managerial frame (66). The function of preparing for the future is thus to counteract the mechanisms of budgetary and technological incrementalism (Barzelay and Campbell, 2002: 12). An effective way to check budgetary and technological incrementalism is through foresight. Hamel and Prahalad (1994) state that foresight is a compelling view of tomorrow's opportunities (xii); it is "not to predict *the* future, but to imagine *a* future" (iv). Foresight is solidified as strategic intent, which is corporately understood and plays a key role in the argument about how to create public value (Barzelay and Campbell, 2002: 15).

Hamel and Prahalad (1994) argued that because core competencies are the highest level, longest lasting units for strategy making, they must be the central subjects of corporate strategy (242). With a focus on the long-term, which incidentally does not start at year five of the current strategic plan but right now (121), preparation must be undertaken today. Hence it forces the organization to ask, "What must we be doing differently today if we want to create this particular future – if we want to reach this particular destination?" (Hamel and Prahalad, 1994: 159)

In fact, the most sustainable advantages are those based on organizational ability to learn (Hayes and Upton, 1998: 24). Organization learning is therefore instrumental in moving organizations purposefully forward in their quest for improved capabilities. Nevertheless, today's core capabilities can become tomorrow's core rigidities (Leonard-Barton, 1995: 112). As Cohen and Brand (1993) put it, "no news is not good news; it simply means that you do not know what is going on." (7) Hence, organizations must be structured and shaped in a way that facilitates learning and change (Hayes and Upton, 1998: 18).

The responsibilities described above no doubt demands a significant expenditure of intellectual energy by senior management. A fair question to ask is whether the time and attention expended in manufacturing management should have been invested in preparing for the future instead. This challenge also leads to the broader issue of whether the business process management school of thought distracts the senior executive from his key role.

THE STRATEGIC ROLE OF MANUFACTURING MANAGEMENT

In addressing the concern whether it is useful to take on board ideas of manufacturing management, I will examine how they impact the success, learning and growth of an organization. This should aid in our thinking of how much time and attention, if any, a public manager should devote to business process management.

Moore (1995) observed that current operations would affect future performance, for today's experiences shape the culture and capabilities of tomorrow's organization. Public managers, then, are to hold a vision of public value, good for today and into the future (57). Using an operations viewpoint, managers identify a sensible combination of policies that are both effective now and flexible enough to adapt to future needs. While Hopp and Spearman (1996) acknowledge the fact that a strategic vision certainly is extremely important, they posit that it is only through careful attention to technical detail that it can be achieved (647). They added that embedding a concern for operations in strategic decision making is essential for ensuring feasible plans (4). Likewise in the public sector, operations and strategic planning are closely tied. Moore (1995) proposed that a strategy must be substantively valuable, legitimately and politically sustainable, and operationally and administratively feasible (71). The last criterion strengthens the argument that low-level operation details can have strategic consequences.

Implementation of new technical processes can move beyond merely increasing efficiency when managed for learning (Leonard-Barton, 1995: 92). Failure is not popular and our usual organizational response to failure is to bury it quickly - and without a headstone. Leonard-Barton (1995) drew attention to the fact that we generally underestimate the role of failure in building knowledge essential to success (118). Contrary to common organizational practice, many trends in manufacturing management celebrate organizational capacity to progress through trial and error. For example, Leonard-Barton (1995) urged for a distinction between failures that result from inherently doomed enterprises and failures that result from creative experiments (intelligent failures) (118). Experimental endeavors – even failed ones – create new options for a company in the face of enormous uncertainty (112). Womack and Jones

(1996) in their discussion of lean thinking stated the rule that "two steps forward and one step backward is O.K.; no steps forward is not O.K. It's not acceptable to do nothing to improve your operation on the grounds that the risk of failure is too high." (260-1) Clearly, these approaches place a premium on intelligent failure as an integral part of organization learning.

The focus on preparing for the future means that strategic management quite often embraces the notion of continuous improvement. Hamel and Prahalad (1994) highlighted this evolutionary nature in the execution of strategy (23) and emphasized the importance of a willingness to continually revisit that point of view, elaborating and adjusting it as the future unfolds (4). Barzelay and Campbell (2002) also endorsed the view by stating that the installed base of strategic thinking may need to be continually cultivated (56). Moore and Scheinkopf (1998) called to attention that Step 5 (Perfection) of lean manufacturing stresses the spirit of *kaizen* or continuous improvement (21). They added that ongoing improvement is an endless pursuit of perfection (23). Womack and Jones (1996) also advised that "when you've fixed something, fix it again. No level of performance is ever good enough. There is always room for improvement." (260) Literally and metaphorically echoing this principle, Cohen and Brand (1993) provided some guidelines on TQM: "If it is not broken, you should still try to improve it" (6); Steps 1 through 7 of the operational steps in TQM should be repeated and performance continuously improved (6); and TQM is a long-term and never-ending process that requires consistent effort and patience (139). The emphasis on continuous improvement in these approaches in manufacturing management is quite apparent. In fact, the principles converge with those emphasized in strategic management. A public manager should therefore find the ideas behind the business process management and the strategic management schools of thought complementary rather than competing.

Preparing for the future however is not an all-encompassing conception of the public manager's role. Even Ronald Fogleman of the U.S. Air Force, whose passion for planning was unusually intense, did not believe that preparing for the future is the be-all and end-all of his responsibilities (Barzelay and Campbell, 2002: 59). Moreover, if an organization does not thrive or survive, there would be no future to prepare for. Thus, in addition to devoting a substantial share of their energies to managing "upwards" and "outwards" toward the policy-making process, public managers also have to manage "downwards" and "inwards" (Barzelay and Campbell, 2002: 59).[x] The business process management school of thought provides a perspective about operational and administrative feasibility in the strategy development process and therefore is a useful tool to the public manager.

CONCLUSION

A contested issue in public management is managing government operations. The various trends in manufacturing management, including lean thinking and total quality management, suggest a new paradigm for assessing management excellence.[xi] Given that public managers often lack a comprehensive framework to assist them in creating public value, the merit of these approaches lies in the fact that they provide substantial guidelines for rethinking every aspect of their jobs and organizations.

I have noted that conceptually the operational activity-as-service delivery metaphor may

be superior to the operational activity-as-manufacturing metaphor because metaphorical mapping in the latter is incomplete in the crucial respect of products. Insofar as contexts of the public and private sectors are concerned, they are more different than similar and the differences are more important than similarities. Although public services cannot be managed like private organizations, this does not mean that theories and techniques from the private sector are not useful because the differences are primarily high-level factors. In fact, the content of approaches in manufacturing management does have a positive impact on the competitive dimensions of cost, quality and speed. Moreover, the approaches contribute to organization success, learning and growth through ensuring feasibility of plans, building core capabilities, and emphasizing continuous improvement respectively. In this respect, business process management transcends technicalities and is consistent with the long-term view, which is the focus of strategic planning. In light of this, strategic management and business process management need not be competing schools of thought. Instead, the espoused values of business process management complement those of strategic thinking. Properly synthesized, the two schools of thought constitute a holistic approach to managing government organizations.

Nevertheless, as Womack and Jones (1996) have warned, these approaches bear no resemblance to the quick-fix approach and the practitioner should not expect pulling-rabbits-out-of-hats tricks (249). Hopp and Spearman (1996) also made it clear that "factory physics is *not factory magic*" (7). Hence notwithstanding the merits of these comprehensive approaches, they are by no means a cure-all. Not only are they not to be adhered to unscrupulously, but also they are not to be considered recipes for success. In other words, they should not be oversold. Nonetheless, the techniques provide a systematic way of enabling an organization to make inroads into operational excellence. In sum, therefore, the public manager, situated at the strategic apex, may find trends in manufacturing management relevant to his key role of creating public value.

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NOTES

i. Incidentally, this models after the private management nomenclature of using alpha-numeric short-hands to denote theories: The Boston Consulting Group's two-by-two Growth-Share Matrix; the three-Cs of organizational dimensions (customer, competition, and company); the four-Ps of the marketing mix (product, price, place, and promotion); Porter's Five Forces (supplier power, buyer power, threat of new entrants, threat of substitutes, and industry rivalry); and McKinsey's seven-S framework (strategy, structure, systems, skills, staff, style, and shared values).

ii. Cited in Hughes, O.E. (1994) Public Management and Administration: An Introduction, Basingstoke: MacMillan Press: 72-3.

iii. A number of scholars have contributed to this discussion. Stillman (1987) cites the following: lack of bottom line; diversity of institutional arrangements; fragmentation of public organizations and their authority; public agencies operate in 'goldfish bowls'; special sensitivity to broad socioeconomic changes; complexity, rigidity and diversity of

internal professional subsystems; differing time perspectives of each subsystem; growth of contractual subsystems brings special complexity; inability to select target audience; and constitutional and legal limits on methods/means of service (181). Cited in Hughes (1994: 257). Allison (1984) also listed John T. Dunlop's ten aspects: time perspective; duration; measurement of performance; personnel constraints; equity and efficiency; public processes versus private processes; role of press and media; persuasion and direction; legislative and judicial impact; and bottom line. Moreover, Allison highlighted the six dimensions observed by Richard E. Neustadt: time horizon; authority; career system; media relations; performance measurement; and implementation. Allison also mentioned that Rainey, Backoff and Levine produced a summary of the major similarities and differences among public and private organizations. Cited in Stillman (1996: 295-7). Parry (1992) outlined seven constraints of the public sector environment: the electoral process; the management of public expenditure and taxation; working with the rules; calling to account; facelessness and secrecy; security and tenure; and risk-taking (6-13). Hughes (1994) proposed five differences: the use of coercion; accountability; coping with an outside agenda; difficulties in measuring output; and size and diversity of the public sector (257-9). Cohen and Brand (1993) believed there are two main differences: a fluid and highly politicized environment; and huge constraint in selecting goals and customers (61-2). Overall, it appears that there is much overlapping between and within the lists of attributes put forward.

iv. In a JIT production flow process, the throughput time for a part just equals its processing time (i.e. absent inspection time, movement time, and waiting/storage time). In this ideal situation, the manufacturing cycle effectiveness (MCE) ratio equals 1, a goal like zero defects may never be attainable but is worth moving toward (Kaplan and Norton, 1996: 117-8).

v. 5S is comprised of five activities, which collectively translate into a cleanup activity at the workplace. They are Seiri (separate the necessary things from the unnecessary and discard the unnecessary); Seiton (neatly arrange and identify things for ease of use); Seiso (maintain tidiness and cleanliness in the workplace); Seiketsu (constantly maintain the 3S – Seri, Seiton, and Seiso); Shitsuke (have workers make a habit of always conforming to rules.

vi. In Moore, R. and Scheinkopf L. (1998: 19).

vii. See Barzelay, M. 1988. Paying the Bills at the Junta of Andalusia.

viii. In Cohen and Brand (1993: 8).

ix. See Kelman, S. 1993. Managing Student Aid in Sweden (Abridged).

x. Based on the three principles Moore (1995) proposed with regard to strategy development in the public sector (73).

xi. Cohen and Brand (1993) recounted that at a meeting of the Association of Public Policy Analysis and Management, Michael Barzelay of Harvard University noted that one of the more important features of TQM is that "it provides a new paradigm for assessing management excellence". Cohen and Brand agreed and believed that this reconceptualization of excellence is one of the most significant changes that TQM may

bring to government (53). This comment should also be applicable to other more influential approaches such as lean thinking.

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