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Managerial processes: an operations management perspective towards dynamic capabilities

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Motivated by the view that the managerial processes underpin the dynamic capabilities of the firm, this article seeks to review the current state of knowledge on managerial processes and propose a research agenda towards a better understanding of managerial processes. A systematic approach to the literature review covering business process and strategic management fields concludes that managerial processes are critical for sustaining and developing competitive advantage, but our understanding as to what they are, their contents and how they function is limited. A definition for managerial processes is proposed and the context within which managerial processes function is identified. An empirically based research agenda, comprising research questions, is outlined that would serve to enhance our understanding of the managerial processes that underpin dynamic capabilities.

Keywords: manage; managerial; management; process; dynamic-capabilities

1. Introduction

For many years, the field of management has been concerned with gaining a better understanding of how organisations perform. This age-old question has been studied and analysed from a number of perspectives, including leadership, strategy, human resources (HR), transformation, change as well as operations. Morgan (2006) in his book entitled *Images of Organisation* analyses organisations from a number of perspectives, including organisations as machines, as organisms, as brains, as cultures, as political systems and as psychic prisons. However, he also suggests that 'an understanding of the process can help us master the strengths and limitations of different view points' (Morgan 2006, p. xi).

According to Slack *et al*. (2006, p. 9) 'all parts of the business manage processes…'. Over the years, the field of operations management has developed in such a way that business process management has been recognised and adopted as a core discipline within the field of operations management. In fact, Deming (2000), in developing his system of profound knowledge, famously coined the phrase 'everything is a process' which underpins the foundations of the theoretical lens applied in this article.

Our interest in managerial processes[1] is motivated by the belief that the form and function of these processes are critical to consistently achieving competitive advantage, a point further elaborated in Sections 5 and 6. The term 'Manage Process' was first introduced by the CIM-OSA Standards Committee (1989) and was subsequently built upon by Childe *et al*. (1994) in an attempt to define a classification and generic architecture for business processes, as depicted in Figure 1.

According to the CIM-OSA Standard (1989) and Childe *et al*. (1994), business processes may be classified into operate, support and manage processes. This classification is not unique as other authors, such as Davenport (1993), Armistead *et al*. (1997) and Garvin (1998) have developed similar classifications for business processes and their schema are detailed later in this article. Although all these authors use slightly varying terminologies, there appears to be a general agreement concerning the importance of managerial processes. However, and perhaps not surprisingly, there is a degree of confusion with regards to the boundaries, scope, contents and nature of these processes.

Motivated by the notion that *competitive advantage is delivered through the capabilities rooted in the operate and support processes but it is the form and function of the managerial processes that determine the organisation's ability to develop and sustain competitive*

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advantage in the long term this article has two objectives. First, it seeks to review the current state of knowledge on managerial processes with a view to propose a research agenda that would lead to a better understanding of these processes. Second, it seeks to start a debate amongst the operations management community as to how their expertise and experiences, around business process management, may be engaged to develop a better understanding of managerial processes.

2. Research method

A literature review informed by Tranfield *et al*. (2003) was adopted for the research into existing work on managerial processes. The review has been undertaken by an academic team with varying backgrounds, including business process management, management science, human resources management (HRM), operations management, strategic management and psychology – all of whom were participating in the research being reported here. As such, a wide coverage of the area was carried out.

The focus of the literature search was based on the notion that *it is the form and function of the managerial processes that determine the organisation's ability to develop and sustain competitive advantage in the long term*. Keyword searches were employed to identify articles published between 1990 and 2008 in specific management databases, such as Business Source Premier, Web of Knowledge, Emerald Insight, Management and Organisation Studies and Science Direct. Also, a number of journals were chosen as they attract a large number of papers, very often addressing a broad range of managerial problems from a business process perspective. These include *Business Process Management Journal*, *International Journal of Operations and Production Management*, *Strategic Management Journal*, *Academy of Management Review*, *Academy of Management Journal*, *Long Range Planning*, *Journal of Management Studies* and *British Journal of Management*.

Initial keyword searches were performed using terms such as 'business process', 'manage-process', 'managerial process' and 'management process'. In addition, informed by the literature and the combined knowledge of the academic team, more specific searches were conducted using keywords such as 'strategy process', 'performance management process' and 'change process'. These search strings identified over 20,000 articles in total. An initial study of this literature led us to the conclusion that, although a large number of articles do match the search strings as defined above, very few instances were specific to managerial processes as described above. More commonly, the results returned articles that focused on specific processes, such as 'maintenance management process' or 'how to manage process performance'. Consequently, a further survey of the literature was conducted by narrowing down this search to include only those articles that took a strategic managerial perspective[2] rather than a general management or technology perspective (e.g. ICT) and papers that presented conceptual literature review or case studies on the subject of managerial processes as outlined above. The literature search and reduction process described above are outlined in Table 1.

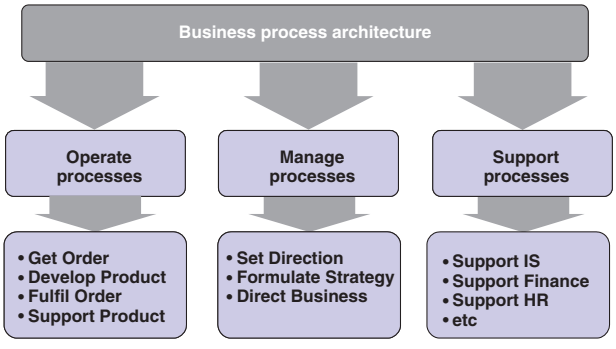

Figure 1. Business process architecture (based on CIM-OSA (1989) and Childe *et al*. (1994)).

Table 1. Overview of the literature search, reduction and analysis.

Phase	Literature search	Literature reduction	Literature review
Timeframe	June–November 2008	November 2008 to February 2009	February–June 2009
Description	Key word searchers to identify articles published between 1990 and 2008	Analysis of titles and abstracts to focus on articles with strategic perspective	Detailed analysis of the literature resulting in further reduction based on emphasis, content and quality.
Results	Over 20,000 articles	Approximately 400 articles	Approximately 130 articles

Even after the initial reduction, the review identified a broad literature base that included literature from areas such as organisational behaviour, change management, organisational learning, HRM, as well as business process, operations and strategic management fields. The challenge was how to draw boundaries around the literature. After some analysis and debate, it was concluded that the strategic management literature – in dealing with how organisations compete, manage their strategies, develop their resources and change in response to external and internal stimuli – provided sufficient coverage of these areas. Thus, strategic management literature was used as a pointer to specific articles that would be pertinent to the focus of this article rather than conducting extensive literature reviews in these areas.

Thus the literature review identified two separate but overlapping bodies of literature that were essentially concerned with managerial processes. These are:

- Business process literature – generally concerned with issues such as the definition of business processes, different types of business processes, business process modelling and improvement and so on. In this body of literature, how different authors attempted to classify business processes and, specifically, how they defined managerial processes were of particular interest.
- Strategic management literature – generally concerned with how firms manage their strategies to develop and sustain competitive advantage. Of particular interests were how firms compete, how they develop and sustain competitive advantage and how they manage strategy, including how they develop their resources, how they learn and how they change.

In the following sections, we present a précis of the relevant works from these bodies of literature.

3. Business processes literature

Initial analysis of this broad body of literature led us to categorise this literature into a number of areas, such as business process definition and classification; business process modelling and archetypes; business process management and re-engineering. This categorisation is used to help present the literature and is not intended as a proposal of how this literature should be categorised. Indeed, there are several articles that are multi-faceted and crossover these categories.

3.1. *Business process definition and classification*

The notion of business processes that has been around since the early 1980s was first popularised by Hammer (1990) and has since gained widespread acceptance across the academic and practitioner communities alike. Although the literature provides a number of alternate definitions for business processes, almost all of these definitions either explicitly or implicitly agree that *a business process is a series of continuous or intermittent cross-functional activities that are naturally connected together with work flowing through these activities for a particular outcome/purpose* (Davenport and Short 1990, Davenport 1993, Hammer and Champy 1993, Ould 1995, Bititci and Muir 1997, MacIntosh 1997, Zairi 1997, Malhotra 1998, Lin *et al.* 2002, Slack *et al.* 2006).

What seems to make the business process approach so powerful is that it not only focuses on activities, i.e. what is done or how it is done, it also places a great emphasis on how these activities are interconnected and how work flows through these activities to produce efficient and effective results.

It seems that only a few authors from the business process literature have attempted to classify business processes, as illustrated in Table 2. Moreover, it appears that these classifications are inconsistent whilst also being overlapping. The authors provide varying degrees of insight to the rationale behind their classification, as well as to the inner workings of the processes they have defined. Childe *et al.* (1994), whilst providing detailed models for operate processes, merely list the management and support processes as examples. Garvin (1998), on the other hand, explains what he means by these processes and gives examples from literature and practice to support his classification. In contrast, Armistead *et al.* (1997) refer to the CIM-OSA classification and suggest that manage processes are split into two distinct process categories: managerial processes and direction-setting processes. They justify this by arguing that business excellence models, such as European Foundation for Quality Management (EFQM; Eskildsen *et al.* 2001), separate leadership from policy and strategy process. According to Armistead *et al.* (1997), 'managerial processes are to some extent super-ordinate to the other categories and contain the decision making and communication activities. For example, entrepreneurial, competence building and renewal processes are managerial processes'. Davenport (1993) also provides a comprehensive classification of business processes with a view to providing a greater degree of structure to managerial work. Whilst he recognises the importance of capabilities such as leadership and influence building, he

Table 2. Classification of business processes.

Childe *et al.* (1994) and CIM-OSA (1989)	Davenport (1993)	Armistead and Machin (1997)	Garvin (1998)	Porter (1985)
Operate processes • Get order • Develop product • Fulfil order • Support product *Manage processes* • Set direction • Formulate strategies • Direct business *Support processes* • Support IS • Support HR • Support finance • and so on	*Operational processes* • Product and service development processes ○ Research ○ Engineering and design ○ Manufacturing ○ Logistics • Customer facing processes ○ Marketing ○ Order management and sales ○ Service processes *Management processes* • Strategy formulation • Planning and budgeting • Performance measurement and reporting • Resource allocation • HRM • Infrastructure building • Stakeholder communication	*Operational processes* *Managerial processes* • Competence building • Renewal *Direction setting* *Support processes*	*Organisational* • Work processes ○ Operational ○ Administrative • Behavioural processes ○ Decision making ○ Communication ○ Learning • Change processes ○ Creation ○ Growth ○ Transformation ○ Decline *Managerial* ○ Direction setting ○ Negotiation and selling ○ Monitoring and control	*Primary activities* • In bound logistics • Operations • Outbound logistics • Marketing and sales • Service *Support activities* • Firm infrastructure • HRM • Technology development • Procurement

suggests that they may be outside the realm of business process orientation. Porter (1985) provides a further classification of business activities as primary activities and support activities, which may also be interpreted as processes.

It seems that, whilst all the authors agree on the fundamental content and context of different business processes, there seems to be some confusion over how to classify these processes and what to call them. Furthermore, there seems to be consensus that business processes exist for different purposes. For example, some are customer-facing *operational* processes, others are administrative *support* processes which are also operational but are not customer facing. The group that we are particularly interested in is *managerial processes* concerned with the future performance of the organisation, such as setting new directions, formulating and implementing strategies, managing change and transformations as well as monitoring and control to ensure that progress is made in the intended direction. Thus, the remainder of the literature review has been presented with an accent on our understanding of these managerial processes.

3.2. *Business process modelling and archetypes*

The business process literature contains a plethora of research on how to model business processes that has led to the development of a range of well-established business process modelling techniques, such as the structured systems analysis and design method – SSADM (Gane and Sarson 1979, Yourdon 1989), integrated definition methodology – IDEF (Mayer *et al*. 1994) and strategic options development and analysis – SODA (Rosenhead and Mingers 2001). Researchers and practitioners in this field take the view that to build a complete model of a business process, the process needs to be studied and modelled from a number of perspectives, including functional, informational, resource, organisational, decisional and behavioural (Bal 1998, Roberts 2004, Caldwell and Platts 2005, Scozzi *et al*. 2005).

A number of researchers have used the above modelling formalisms to develop archetypes for various business processes. Maull *et al*. (1995) built upon the CIM-OSA Standard (1989) and developed generic models for operate processes, which include get order, develop product, fulfil order and support product processes. The Supply Chain Council developed a generic business processes model (supply chain operations reference model (SCOR 2007)) for supply chains, comprising plan, source, make, deliver, return and enable processes. O'Donnel and Duffy (2002) have developed a generic model for the product development process which is an operate processes. Similarly, Cakar *et al*. (2003) developed a model of the HRM process which is classified as a support process.

In addition, within the practitioner community there seems to be a prolific number of proprietary generic models for business processes. For example, the SAP ERP system is supported by numerous business process models for different industries (Rickayzen *et al*. 2006). However, as these systems are primarily concerned with supporting the workflow through operational processes, it is not surprising that the generic processes defined do not include managerial processes.

Despite the fact that business process modelling is a mature field, the business process literature contains very few attempts towards defining, modelling and understanding any of the managerial processes. The exceptions include Nokia's strategy process (Tuomi 1997), British Telecom's strategic planning process (Armistead *et al*. 1999) and Munive-Hernandez *et al*. (2004) who developed a generic model of the strategy management process based on a review of the strategy literature. Their justification for taking a business process-based approach to strategy management is that it ensures the consistent generation and communication of strategy throughout an organisation and that the performance of a business strategy can then be measured against a model of initial alignment and effective implementation. Their model is yet to be tested and validated.

3.3. *Business process management and re-engineering*

This area of research is primarily concerned with the improvement of business process performance, where the words 're-engineering' and 'management' are used to describe large-scale radical change and incremental improvement, respectively. This literature (Armistead *et al*. 1997, 1999, Zairi 1997, Harrington 1998, Lee and Dale 1998, O'Neil and Sohal 1999, Melao and Pidd 2000) almost unanimously agrees on the following steps to improve the performance of a business process, be it radical or incremental: identify and define key business processes; understand these processes by documenting and modelling them; define metrics for these processes; measure and track these metrics; benchmark where appropriate and possible and take corrective action, re-design, re-configure the process to improve performance.

In fact, this approach is also consistent with the modern process improvement techniques such as lean enterprise and six sigma's DMAIC (define, measure,

analyse, improve and control) approach (Antony 2006). In addition to the more methodical and systematic aspects of business process improvement, the importance of the management of change is also identified as a critical factor for successful business process improvement projects (Davenport 1993, Elzinga *et al*. 1995, DeToro and McCabe 1997).

Even though this literature cites several business process improvement and re-engineering case studies, almost all of these cases seem to focus on operate or support processes such as order fulfilment process, product development process, sales process, load approval process, HR recruitment process, HR appraisal process and so on (Harrington 1998, Lee and Dale 1998, O'Neill and Sohal 1999). Almost no reference is made to how managerial processes have been identified, modelled, measured, benchmarked and improved.

4. Strategic management literature

As with the business process literature, there is a wealth of writing around strategic management. Primarily, this body of literature is generally concerned with how firms manage their strategies to develop and sustain competitive advantage. Initial analysis of the literature identified three specific fields within the strategic management literature as being pertinent to the focus of this article, i.e. managerial processes. The three fields are:

- Resource-based view (RBV) of the firm, particularly concerned with how firms compete
- Dynamic capabilities, particularly concerned with how firms develop and sustain competitive advantage and
- Strategy management, concerned with how firms manage their strategies.

4.1. *RBV of the firm*

The body of literature on the RBV of the firm has been concerned with how organisations develop and sustain competitive advantage by leveraging their resources (Wernerfelt 1984, Prahalad and Hamel 1990, Barney 1991, Amit and Schoemacher 1993, Penrose 1995, Barney *et al*. 2001). In this literature, it is argued that organisations develop tangible and intangible resources over time, some of which may be distinctive (i.e. distinctive competencies) and some may be more difficult to replicate than others, i.e. core competencies (Wernerfelt 1984, Prahalad and Hamel 1990, Amit and Schoemacher 1993).

Moreover, it can be deduced from this literature (both through the examples presented when discussing competencies and capabilities, and through discussion relating to intangible resources) that many of these resources could be organisational resources such as business processes. In a special issue of the *Journal of Management* on the RBV, Barney *et al*. (2001) noted three key areas for further examination and research, these include:

- How organisations learn and share knowledge
- How organisations develop and manage alliances and relationships
- How organisations innovate

This literature argues that organisations develop and sustain their competitive advantage through learning from their own and others' experiences, through relationships, networks and co-development (Argyris and Schon 1978, Nonaka 1991, Nonaka and Takeuchi 1995, Quinn *et al*. 1996, Easterby-Smith and Prieto 2008), and that innovations, be it process, product or business model, arise from the application of learning and knowledge from one context to other contexts (Keogh 1999, McAdam 2000). Thus, the facilitation of organisational learning through the effective management of knowledge throughout the organisation is seen as a critical competence that enables organisations to develop and sustain competitive advantage (Pettigrew and Whip 1993, Conner and Prahalad 1996, Grant 1996, Nahapiet and Goshal 1998, Davenport and Prusack 1998, Osterloh and Frey 2000).

4.2. *Dynamic capabilities*

In addition to the debate surrounding the implications of a firm's stock of resources, the body of literature on dynamic capabilities is of particular interest from a managerial process perspective (Wang and Ahmed 2007). In essence, dynamic capabilities represent organisation's ability to rapidly and with minimum disruption to extend, integrate, build, modify and reconfigure its resource base that includes tangible, intangible and human resources (Amit and Schoemaker 1993, Teece *et al*. 1997, Helfat 2003, Helfat *et al*. 2007, Easterby-Smith and Prieto 2008).

However, opinion varies as to what comprises dynamic capabilities or how they are built. For instance, Zollo and Winter's (2002) structured view of dynamic capabilities is rooted in organisational learning. In contrast, Rindova and Kotha (2001) present an emergent view of dynamic capabilities. Others recognise that dynamic capabilities, per se, are not a direct source of competitive advantage, rather,

they are the organisational and strategic routines (or processes) by which managers alter their resource base (Eisenhardt and Martin 2000, Winter 2003, Teece 2007, Døving and Gooderham 2008, Furrer *et al*. 2008). In fact, Eisenhardt and Martin (2000) go further and suggest that dynamic capabilities are a set of specific and identifiable business processes such as strategic decision making.

4.3. *Strategy management*

The strategic management literature contains many debates around what is the strategy (Quinn 1980, Mintzberg *et al*. 1998[3], Wright and McMahan 1999) and how strategies should be developed, formulated and implemented (Lindbolm 1959, Chandler 1962, Ansoff 1965, Andrews 1980, Porter 1980, 1996, Johnson *et al*. 2005). In fact, the literature presents comprehensive reviews of this field (Hoskisson *et al*. 1999, Bowman *et al*. 2002, Grant 2008). The purpose of this section is not to extensively review the field but rather to offer an overview from a managerial process lens.

The most widely recognised managerial process, both by practitioners and researchers, appears to be the strategy process, i.e. the process by which strategy is formulated, implemented, reviewed, refreshed and so on. It is widely recognised that the literature on strategy has evolved from the deliberate, through the emergent to the processual school of thought (Pettigrew 1977, Quinn 1980, Johnson *et al*. 2005). The strength of the processual approach to strategy seems to be in the fact that the strategy process is deliberate whilst the strategy content emerges from this deliberate process.

Evidenced by the fact that the literature contains a plethora of models for the strategy processes (Table 3), the strategy management process prevails as a dominant managerial process. However, literature also contains process archetypes for other managerial processes such as:

- Change (Lewin 1951, Burnes 2004, Sirkin *et al*. 2005).
- Performance management (Kaplan and Norton 1992, 1993, Goodman and Lawless 1994, Bititci and Carrie 1998, Neely *et al*. 2000, Campbell *et al*. 2002).
- Direction setting (Harari 1994, 1995, Collins and Porras 1995, 1996, Nanus 1996, Pearce and Robinson 1996).
- Environmental scanning (Aguilar 1967, Aaker 1983, Costa 1995, Van Wyk 1997, Choo 1998, Liu 1998, Beal 2000, Ngamkroeckjoti and Johri 2000, Abels 2002, Albright 2004, Day and Schoemaker 2006).

Although these managerial processes are not as prevalent as the strategy management process, the boundaries between various processes do not appear to be defined. In most cases, researchers seem to focus on a single process alone, without attempting to understand how one managerial process may interact with others (e.g. how does the strategy process interact with the change process). In fact, a detailed study of these processes reveals so many overlaps between different processes that it is not clear whether a number of interacting managerial processes are being studied or the same process is being studied from different lenses under different names.

5. Discussion – towards understanding managerial processes

The broad body of literature reviewed so far recognises the process-based approach as an important and powerful approach with a certain degree of consensus that business processes exist for different purposes. Some are customer-facing operational processes, some are administrative support processes, which are also operational but are not customer facing, and some are managerial processes concerned with the future performance of the organisation underpinning dynamic competencies of organisations as discussed in the strategic management literature.

However, the debate concerning managerial processes offers fragmented and conflicting views. On the one hand, the business process literature, taking a holistic, but perhaps a mechanistic view (Morgan 2006), debates what these managerial processes could be, but this does not move beyond theoretical discussions and conceptual models. On the other hand, in the strategic management field various researchers have attempted to develop a better understanding of individual managerial processes using various qualitative, quantitative, theoretical as well as empirical approaches. But these studies seem to focus on a single process at a time without attempting to understand the entire managerial system, i.e. the interaction between various managerial processes and, indeed, with other business processes.

It seems that the dynamic capability theory is converging towards the notion that a firm's dynamic capabilities are resident in the firm's managerial processes (Teece *et al*. 1997, Helfat *et al*. 2007) that are primarily concerned with the future performance of the organisation. Furthermore, a key function of these managerial processes seems to be to configure

Table 3. Strategy management processes archetypes.

Description	Reference
Strategy formulation as a structured process	Childe and Francis (1977)
A high-level framework for formulating and implementing corporate strategy that takes a process-based approach starting with identification of opportunities and risks and ending with implementation of strategy through organisation structure, processes and leadership	Andrews (1987)
A framework for strategy development and implementation. Starts with company mission and ends with formulation of grand and functional strategies and long-term and annual objectives	Pearce and Robinson (1996)
A framework for strategy formulation and implementation. Starts with vision, values and expectations, analyses situation (external and internal), formulates strategy, policies and procedures, plans and implements strategy and ends with strategic control	Digman (1990)
An approach to strategic decision making starting from surveillance of the external and internal trends through to strategic decision making based on the degree of uncertainty	Ansoff and McDonnell (1990)
A sequential framework that starts with defining mission, translates mission into long- and short-range objectives, crafts strategy and performance objectives, implements and executes strategy, reviews performance and takes corrective action	Thomson and Strickland (1990)
A simple framework for corporate strategy management. Starts with environmental scanning, formulates strategy, implements strategy, evaluates and controls performance	Wheelen and Hunger (1986)
STRATEGEM – a process of auditing strategy and identifying improvements through strategic analysis, manufacturing analysis, formulating manufacturing strategy and action planning	Hughes (1996)
'JOURNEY' Jointly understanding, reflecting and negotiating strategy, a method that encompass work by senior management teams through a *process* of strategy making. Uses cognitive and cause mapping as a technique to model qualitative data. Also, uses Decision Explorer as a tool to manage ideas	Eden and Ackermann (1998)
A workbook that guides the user through seven tasks. It starts with examining the organisations products and markets and concludes with a strategy and implementation plan. It also places considerable emphasis on embedding the strategy process into the organisation	Mills *et al.* (1998)
An approach to identifying the value proposition of the organisation. The phases include financial analysis, corporate planning, assess market/operations congruence and action planning	Focus (1999)
A process that identifies business objectives, business units, the strategic history of each business unit and goes on to facilitate the development of strategies for each business unit. Intended as a process that needs to be embedded into the organisation	Acur and Bititci (2003, 2004)
A process for generation and communication of strategy throughout the organisation developed using IDEF business process modelling technique	Munive-Hernandez *et al.* (2004)

the resources, i.e. operational and support processes, of the organisation in order to ensure that competitive advantage and therefore performance is maintained and indeed enhanced. We would therefore suggest that *it is the operational and support processes that deliver competitive advantage here and now (through excellence in products, customer service and productivity) but it is the form and function of the managerial processes that underpin the dynamic capabilities of an organisation and thus determine how competitive advantage is sustained and developed in the long term*.

Given that strategic management authors have recently called for empirical work to link dynamic capabilities with performance outcomes (Helfat *et al.* 2007) and that managerial processes are the underlying processes that define dynamic capabilities, there is a clear and compelling reason for further empirical research into managerial processes that studies the entire managerial system as a whole rather than specialised studies that focus on a single process. Furthermore, as suggested by Morgan (2006), an understanding of the managerial processes, i.e. what is done, how and why, would help us develop a better understanding of the strengths and weaknesses of various perspectives adopted when studying how organisations develop and sustain competitive advantage and in turn performance.

Table 4. How different views on managerial processes map on to each other.

Strategy management and RBV literature	Davenport (1993)	Garvin (1998	Childe *et al.* (1994) and CIM–OSA Standards Committee (1989)	Armistead and Machin (1997)
• Set direction	• Strategy formulation	• Direction setting	• Set direction	• Direction setting • Competence building
• Scan environment	• Strategy formulation	• Monitoring and control	• Formulate strategies	
• Manage strategy (i.e. formulate and implement strategy) • Make strategic decisions	• Strategy formulation • Planning and budgeting • Resource allocation	• Decision making • Communication • Learning	• Formulate strategies	• Competence building
• Manage change and transformation	• Resource allocation	• Negotiation and selling • Change processes	• Direct business	• Renewal
• Measure and manage performance	• Performance measurement and reporting	• Monitoring and control	• Direct business	

5.1. *Managerial processes – a definition*

According to Pettigrew (1992), a formalised and common definition is essential to our understanding of the research topic. However, such a definition for managerial processes, which integrates the business process and the strategic management perspectives, does not exist. Table 4 provides a summary of various managerial processes encountered in the literature. It appears that although different terminologies are used to describe managerial processes, there is a relatively high degree of congruence as to what these managerial processes are. Table 4 illustrates how various managerial processes, as defined by different authors, map on to each other. For example, Davenport's (1993) definition of strategy formulation includes direction setting and environmental scanning. Similarly, Garvin's (1998) decision making, communication and learning processes refer to decisions and communication in relation to strategy, planning, resource allocation as described by Davenport (1993).

We would go further and add that these processes are not mutually exclusive, but they are highly interdependent, informing and governing each other. For example, the output of the set direction process would govern the activities and decisions of other processes, e.g. manage strategy, similarly the output of processes, such as scan environment and manage performance, would inform the activities and decisions of other managerial processes e.g. manage change.

Therefore, based on the literature and discussion above, we would propose the following definition: 'managerial processes are a series of managerial routines that underpin, as an inter-connected managerial system, the dynamic capabilities of an organisation by controlling and reconfiguring the organisation's resource base thus impacting on the organisation's ability to attain, sustain or enhance competitive advantage in the long term'.

5.2. *Managerial processes – the context*

Pettigrew (1992) also suggests that a process can truly be understood and studied within its context. Whilst we appreciate that the context of managerial processes would vary from one organisation to other, we also believe, based on the literature, that there are some contextual factors that differentiate managerial processes from other business processes.

The literature tentatively suggests that managerial processes have to operate in an environment that is both complex and uncertain (Johnson and Scholes 1999), reflecting Mintzberg's (1994) assertion that the future is unpredictable and that a deliberate approach to strategy does not work in practice. As such, they have to balance opportunistic and emergent decision making with a clear set of deliberate priorities.

According to Ashby's (1962) law of requisite variety, the greater the complexity and uncertainty, the greater the amount of significant information that

needs to be processed, suggesting that managerial processes facilitate both corrective and generative learning. Alongside this demand for learning, and indeed complementary to it, is the fact that managerial processes need to manage complexity (rather than reduce it) by integrating different and potentially conflicting and emotional views (Johnson and Scholes 1999) across the organisation, whilst trying to create a workable balance between stability and constant change (Ackermann *et al*. 2005). This suggests that managerial processes are more concurrent than sequential to allow them to deal with these conflicts and emotions in an iterative fashion.

Literature implies that managerial decisions and actions relating to strategy, change, performance, etc., take place as a result of conversations between different players either formally in boardrooms or informally in offices and even in corridors (Mintzberg 1994, Ackermann *et al*. 2005). Thus, by recognising both the demands to manage the complexity (through structures) along with making sense of the conversations, managerial processes could be argued to be emergent, cognitive and interpretative.

In short, the environment in which managerial processes operate within, in contrast to other business processes, may be characterised as:

- more uncertain
- more complex
- more emergent
- more influenced by emotions
- more concurrent
- more learning focused
- more cognitive and interpretive.

Therefore, we would infer that in order to perform in this environment, collectively, the managerial processes must facilitate organisational learning, dissemination of knowledge, management of relationships, rapid and innovative responses to internal and external changes, opportunities and threats, filtering uncertainty and noise for operational and support processes to enable them to perform in a relatively stable and predictable environment.

Having established that managerial processes have to exist in a complex, unpredictable and emergent environment, it is important to recognise Mintzberg (1978) as he refers to strategy as a 'sustained pattern in a stream of activity'. As such, this view does not conflict with the notion of business processes. In fact, it is complementary as he suggests that emergence is more about the non-deterministic nature of process execution in practice. Indeed, Mintzberg is cited in Van De Ven (1992) as an exemplar of a process researcher, where he proposes a process model of the phases of unstructured decision making based on observations in 25 organisations. Relative to the work presented in this article, we would suggest that Mintzberg's emergent view leads us towards the view that within this highly uncertain and emergent context, the practice of 'how' managerial processes are executed would be equally, if not more, significant than an understanding of 'what' organisations do in managerial processes. In other words, we would want to understand the activities that comprise the managerial processes as well as how practices are used to execute these activities.

5.3. *A research agenda for better understanding managerial processes*

In this article, based on our deduction from the literature, we have proposed a definition for managerial processes and identified the context within which these managerial processes need to function. We have also highlighted that in order to better understand the managerial processes, we need to explore not only 'what' organisations do in these processes, i.e. the activities, but also 'how' these activities are conducted, i.e. the managerial practices that shape these activities.

However, our understanding of the managerial processes is still constrained by a number of factors. First, specialised studies that focus on a single process fail to explore the interconnected nature of the managerial processes. Indeed, it is not clear from the literature where one process stops and another starts, or even if various managerial processes (such as change, performance and strategy) are different, but interconnected, set of processes or whether they are merely the same managerial system viewed from different theoretical lenses (Pettigrew 1992). Second, any empirical research seems to focus a single process with little evidence of establishing a holistic understanding of the interconnected managerial system and the role and function of individual managerial processes within this system. Third, any research conducted into managerial processes from an operations management perspective seems to focus on the mechanistic aspects of the processes. In many cases, exploring the activities that make up the process (e.g. Munive-Hernandez *et al*. 2004) but not exploring the practices that define '*how*' these activities are executed, which we believe will be the key to differentiating the high-performing organisations from lower performing organisations. Fourth, as yet we do not begin to understand the factors that shape the practices organisations adopt in executing managerial activities and processes. Based on this review and, to a certain extent, discussions within the research team, we suspect

factors such as organisational context, history, structure and culture along with education levels, experiences and perceptions of individual managers determine how the managerial processes and activities are practised and how this impacts on sustainability of competitive advantage and performance.

Clearly, there is a need for further research. We believe that this research needs to be multi-disciplinary in nature using the process view as an integrating framework to bring together different functional views, thus resulting in a detailed and more profound understanding of the phenomenon behind managerial processes (Morgan 2006). Multi-disciplinary research would also provide a framework for theoretical triangulation to offer a richer picture of multi-dimensional, complex real-world issues. This would also harness the tension between different ontological positions for conceptual clarification as well as extending discipline-based understanding. As Andersen *et al.* (1999) observe, 'Organizational scholars seldom come to grips with nonlinear phenomena ... tending instead to model complex phenomena as if they were linear in order to make them tractable, and tending to model aggregate behaviour as if it is produced by individual entities which all exhibit average behaviour'. Considering the implications of such a view on the impact and applicability of management research outputs to the business community has led to calls for multi-disciplinary approaches to researching complex phenomena in the field of management. Hitt *et al.* (2007) observe that 'future excellent multilevel research is more likely to be conducted by multidiscipline teams of scholars who are motivated to investigate complex organizational phenomena' and 'as the field of management continues to grow, it becomes increasingly important to consider and integrate the developments that are occurring outside of specialty areas and in adjacent disciplines'. Furthermore, it would be valuable to conduct fine-grained empirical research based on 'what managers in organisations do' with a view to analysing the managerial processes, activities and practices with respect to the performance of the organisations over a specific timeframe. This will serve to connect theory with practice by generating complex theory from complex issues.

Given that such research would seek to understand *how managerial processes influence the performance*, a qualitative case study-based methodology (Eisenhardt 1989, Eisenhardt and Graebner 2007) would be appropriate, collecting in depth data from a range of organisations. This data can then be analysed using content analysis (Strauss 1987, Davies *et al.* 2003) to surface 'what managerial processes and activities are carried out', to 'what outcome or purpose' as well as 'how they are carried out and why' against the performance classification of organisations (such as high, medium and low performers).

We believe that, through research of this nature a comprehensive understanding of managerial processes could be developed from a dynamic capabilities perspective that would advance our understanding of:

- The managerial processes as practised in organisations offering further insights into their structure and content, both individually as well as collectively.
- How managerial processes interact with one another as well as with other processes, with work flowing through them, to create an integrated managerial system.
- The temporal characteristics of managerial processes, illustrating how they evolve through time.
- The critical managerial or process features that influence the performance evidenced through organisations consistently achieving above-average performance.
- The features that define the capability of managerial processes and the factors that influences these capabilities leading to the development of maturity models for managerial processes and activities either collectively or individually; thus providing practical tools that would facilitate organisational and managerial development.
- How managerial processes could be and should be studied, modelled and researched.

Figure 2 provides an agenda for multi-disciplinary empirically focused research that would lead to a better understanding of managerial processes.

6. Conclusions

Having examined, compared and reflected on the literature, we propose that the notion of managerial processes is indeed an important construct which is of interest to several research communities. In this article, we have identified the need for better understanding of these managerial processes through multi-disciplinary empirical studies. It is mooted that such research conducted collaboratively by a multi-disciplinary team of researchers will indeed make a significant contribution to knowledge and practice by producing insights as to the patterns of activities and practices associated with different levels of performance outcome.

In our view, the key strength of this article also underpins its primary limitations. It appears that

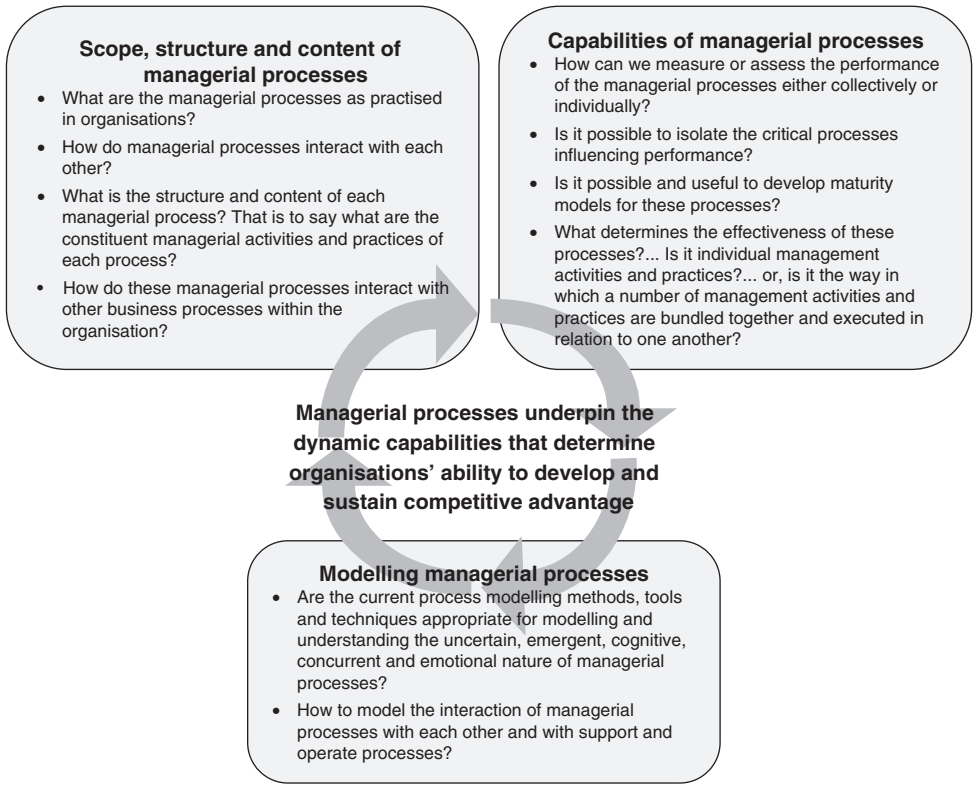

Figure 2. A multi-disciplinary empirically focused research agenda.

managerial processes cut across a number of management disciplines. Therefore, from a methodological point of view, in attempting to review the literature it proved difficult to objectively put boundaries around the literature covered. We could have covered a much broader range of literature; however, we felt that this would have made this article a lot longer as well as distracting from the main focus of this article. In terms of content, we could have gone into much greater levels of discussion concerning the relationship between planned, emergent, processual and practice views of strategy and change, and explored how managerial processes interacted with these views in greater detail. We could have explored further the context and content aspects of managerial processes and theorised on their interaction. We could have explored the different views on managerial processes in greater detail and theorised about what these managerial processes may be. Despite these limitations, we believe that extending boundaries of the literature and the content of this article would not have significantly affected our principal messages and conclusions.

What seems to make the business process approach so powerful is that it not only focuses on activities, i.e. what is done or how it is done, it also places great emphasis on how these activities are *interconnected* to produce efficient and effective results. We believe that there is an opportunity to capitalise on this strength at four levels. First, by understanding the constituent activities of each managerial process and understanding how they are interconnected to produce effective and efficient results. Second, by understanding how the managerial processes interconnect to form managerial systems of varying efficacy in underpinning organisational capabilities that attain, develop and sustain competitive advantage. Third, by understanding how managerial processes individually and collectively interconnect with other business processes. And finally, by understanding the variables or factors that influence and shape how managerial activities and processes are executed.

We believe that operations management as a discipline can make a major contribution towards this research agenda by empirically and theoretically exploring managerial processes that underpin the dynamic capabilities from a business process perspective.

Notes

1. Throughout this article, although the term 'managerial processes' has been adopted as a synonym to manage processes and management processes, where appropriate

alternative terms have also been used to reflect the terminology adopted by various authors
2. The term 'manage' is an inherently generic term that is intrinsic to all management activities within organisations, whether they are strategic or not. However, in the context of this article (CIM-OSA Standards Committee 1989, Childe *et al*. 1994) 'managerial' processes are within the sphere of strategic management, and therefore, different from general and operational management activities.
3. See Mintzberg *et al*. (1998) for a comprehensive discussion on the many interpretations of strategy.

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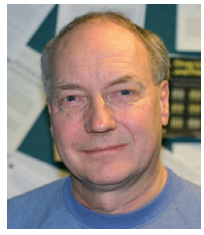

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