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Strategic Capabilities, Middle Managers and Organizational Ambidexterity

Summary (maximum of 150 words)

This paper sets out to address a gap in the organisational ambidexterity literature – the role played by middle managers. Through a systematic review of the literature, we assess current knowledge and relevant research in relation to the connections between the strategic role of the middle manager and the development of organisational ambidexterity. We argue that the view of the middle manager in the processes of organisational ambidexterity is fragmented and partial. Based on a systematic analysis of the literature, we identify six capabilities needed by middle managers in organisational ambidexterity processes. These capabilities form the foundation of a conceptual framework that explores the possibility of differing portfolios of middle manager capabilities coming into play depending upon the form of organisational ambidexterity pursued. This suggests that the role of middle managers in organisational ambidexterity may be more nuanced and differentiated than is currently acknowledged.

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Introduction

The role that middle managers play in the development and execution of organisational ambidexterity is underexplored despite a growing literature examining middle managers significance in strategy processes. As Radaelli and Sitton-Kent (2016) point out, much of the focus of attention is on senior executives and limited to specific functions, such as R&D. Ouakouak et al., (2014) though, found that involving middle managers in organisational capability development impacted indirectly on performance. Prange et al.'s (2017) recent case-based study goes further in suggesting that managers have important roles to play in moving an organisation from one dynamic capability to another.

Part of the problem is that this growing interest in the middle manager is refracted through differing viewpoints and multiple foci. Early papers focused on the role of middle manager in the strategy process (Mintzberg, 1985; Floyd & Wooldridge, 2000; Dutton & Ashford, 1993; Floyd & Lane, 2000; Wooldridge et al., 2008). Other work has explored middle management's role in dynamic environments and in achieving organizational ambidexterity though strategic change (Balogun, 2003, 2006), strategy implementation and emergent strategies (Mintzberg, 1979; Balogun & Johnson, 2004) and aspects of organizational learning (Nonaka, 1991).

The four strategic roles of middle managers that Floyd and Wooldridge (1992, 1996) articulated indicate the scope of the middle manager challenge: (1) The traditional role of *Implementer* as a top down approach of an existing strategy and attempts to integrate subordinates' activities around this strategy; (2) as *Synthesizers* who interpret information and channel it upward to top management; (3) the *Champions* who involves upward influence, but in this role, middle management's divergent thinking has the potential to reshape upper management's concept of strategy; (4) as *Facilitators*, whereby middle managers encourage organizational actors below and around them to engage in idea generation and other experimentation efforts.

Despite the scope and broad range of the middle manager, much of the literature on organizational ambidexterity has focused on the role of senior leaders (Jansen et al., 2008; O'Reilly & Tushman, 2008, 2011) and top management teams (Carmeli & Halevi, 2009). Burgess et al., (2015) argue that middle managers are critical for organizational ambidexterity because of their role as organizational connectors (Taylor & Helfat, 2009), spanning boundaries through linking activities (Wooldridge et al., 2008), mediating and adjusting strategy through their position at the middle levels of the organization (Floyd & Wooldrige, 2000; Nonaka, 1988), and managing change through their relationships with frontline workers (Balogun, 2003).

This paper sets out to address this gap. Initially, through a systematic review of the literature, we assess current knowledge and locate, critically appraise, and synthesise relevant research to enhance our understanding of the relationship between the strategic role of the middle manager and the development of organisational ambidexterity. The key objectives are specifically:

- 1. Analyse and locate relevant theoretical and empirical studies and identify research themes and patterns as well as definitions to consolidate into an overview and identification of research gaps for the research going forward.
- 2. Discuss and identify the capabilities needed by middle managers in organisational ambidexterity process.

3. Provide a holistic conceptual framework that draws on the disparate literature to delineate middle management characteristics of relevance to the organisational ambidexterity process.

Defining Middle Management

Middle management is often described in terms of what it is not, being neither scaled-down senior management, nor an enhanced form of supervision (McConville, 2006). Generally, a middle manager is someone "who is responsible for a business unit at the intermediate level of corporate hierarchy" (Uyterhoeven 1972, p. 136). This places middle managers hierarchically as "below the general manager's executive team and above the level of supervisor" (Heckscher, 1995, p. 9). Functionally, middle managers include those who give and receive direction (Stoker, 2006). Compared to senior managers, these managers are nearer to the operational front line but are sufficiently removed from day to day concerns that "they can see the big picture" (Huy, 2001, p. 73). More formally, Browne, et. al. (2014) defined a middle manager as someone with managerial authority over an organisational unit, such as a department within a business, who has ongoing responsibilities, goals, and objectives specific to that department; but which are also aligned with the organization's overall strategy and vision.

Middle managers are recognised as playing an active role in both strategy formulation and implementation (Floyd & Wooldridge, 1994). They convert autonomous managerial action into strategic intent (Burgelman, 1983) and translate organizational goals and strategy into concrete actions (Uyterhoeven, 1972). Such managers ensure the efficient allocation, transfer, and sharing of resources and capabilities, exerting upward, downward, and sideways influence (Bower, 1970; Bartlett & Ghoshal, 1998; Nonaka, 1988). Huy (2001) notes that middle managers commitment and support is critical for the success of organizational and strategic change processes.

While difficult to delineate because of the range of roles involved, the work of middle managers incorporates three broad areas (Torrington & Weightman, 1987). Administrative work covering the routine and visible activities of information collection and distribution. Technical work relating to a manager's original trade or profession is important, not only for appreciating and detecting operational problems, but for reputational effect as an authority in the field of knowledge rather than simply being in authority. Managerial work recognises that persuading others into an opinion or course of action is also sometimes required (Torrington & Weightman, 1987). Here, confidence in middle managers ability to cope with uncertainties is necessary, both from seniors in delegating appropriate authority, and from subordinates in following a manager's lead (McConville, 2006).

Currier and Procter (2005) argue that, as markets have become more dynamic and predictability lower, the significance of the middle manager role in the strategy process has increased in several ways. In conceiving new ideas, middle managers supply contextual and technical knowledge as well as experience in shaping strategy (Dutton & Ashford, 1993; Dutton et al., 2001). As Kanter (1982) remarks, "because middle managers have their fingers on the pulse of operations, they can also conceive, suggest, and set in motion new ideas that top managers may not have thought of." This centrality in their organizations' knowledge systems helps the middle manager to drive emergent processes of change and adaptation (Burgelman, 1994; Nonaka & Takeuchi, 1995; Floyd & Wooldridge, 1999). They act as important catalysts for the bottom-up development of organizational capabilities (Burgelman, 1994; Floyd & Wooldridge, 1999, 2000). Confronted with senior management strategic uncertainty, middle

managers have broad scope for interpreting their responsibility for developing and implementing strategic initiatives as strategy becomes an adaptive process constructed from many individual decisions over time (Mintzberg, 1979; (Sillince & Mueller, 2007).

Rather than considering middle managers as a single homogenous group, the relationship between their contribution to strategy and their hierarchical position in the organization requires closer scrutiny (Currie & Procter, 2005). Middle management includes a range of activities. Floyd and Wooldridge (1992) for example argued that upward influencing behaviours of 'synthesizing information' and 'championing alternatives' were less common at lower levels of middle management. More generally, Livian (1997) describe middle managers as differing in terms of the time-scale and scope of decision-making processes, and their impact on the working of the organisation. Such managers hold a vicarious position on behalf of senior managers, playing a co-ordinating role, but with limited autonomy (Rocca, 1992).

Definition of Organizational Ambidexterity

Raisch et al., (2009) noted that "the number of studies in leading management journals that explicitly refer to the ambidexterity concept increased from less than 10 in 2004 to more than 80 today". Although popular across differing research domains, poor cross-fertilization has resulted in fragmented and contextualised views of ambidexterity (Simsek, 2009). As demonstrated in Table 1, 'organisational ambidexterity' is subject to multiple interpretations and lacks consistency.

Table 1: Selected Key Definitions of Organizational Ambidexterity

Author	Definition			
Tushman & O'Reilly (1996)	Ambidextrous organizations are those able to implement both evolutionary and revolutionary change.			
O'Reilly & Tushman (2004)	Ambidextrous organizations are those that manage both exploration and exploitation activities, incremental and radical innovation.			
Gibson & Birkinshaw (2004)	Contextual ambidexterity is the behavioral capacity to simultaneously demonstrate alignment and adaptability across an entire business unit.			
He & Wong (2004)	Ambidexterity as the simultaneous pursuit of exploration and exploitation innovation strategies.			
Smith & Tushman (2005)	Ambidextrous organizations build internally inconsistent architectures and cultures into business units so that the firm can both explore and exploit.			
Lubatkin et al., (2006)	Ambidexterity as the ability to jointly exploit existing competencies and explore new ones. These two facets of organizational learning are considered inseparable.			
Mom et al., (2007)	Ambidexterity as the ability to both explore new possibilities in order to cope with future changes in the business environment and to exploit old certainties to meet today's business demands.			

O'Reilly	&	Tushman
(2008)		

Ambidexterity as a dynamic capability based on structural separation and senior leadership team with cognitive and behavioral flexibility. Capability embodied in senior leadership's learning and expressed through their ability to reconfigure existing organizational assets and competencies in a repeatable way to adapt to changing conditions

Cao et al., (2009)

Organizational ambidexterity is a firm's innovation orientation with regard to the introduction of new products/markets and/or the improvement of existing products/markets.

Jansen et al., (2009)

Organizational ambidexterity as a dynamic capability. Refers to the routines and processes by which ambidextrous organizations mobilize, coordinate, and integrate dispersed contradictory efforts, and allocate, reallocate, combine, and recombine resources and assets across differentiated exploratory and exploitative units

Andriopoulos & Lewis (2009)

Ambidextrous firms are capable of simultaneous, yet contradictory, knowledge management processes associated with incremental and radical innovation.

Nonetheless, Table 1 also suggests that 'ambidexterity' commonly refers to the management of the seemingly contradictory processes of exploration and exploitation within the organisation (Lubatkin et al., 2006; O'Reilly & Tushman, 2008; Andriopolous & Lewis, 2009; Piao, 2010). Exploitation and exploration processes compete for scarce resources and involve differing capabilities and activities within the organization; exploring is more time consuming, uncertain and has a longer time horizon than exploitation which is based on refining current knowledge and extending current competencies (March, 1991). The micro foundation of these processes is embedded in the skills, processes, procedures, organizational structures and decision rules of the organisation (O'Reilly & Tushman, 2008). Firms overemphasizing either exploration or exploitation, risk getting caught into failure or success traps (Levinthal & March, 1993), highlighting the need for paradoxical thinking in organizations to manage these opposing demands (Raisch & Birkinshaw, 2008, Lewis, 2000, Jansen et al., 2009b). The conflicting demands of exploration and exploitation and the need to balance the two have attracted the attention of researchers in different domains. It has been extensively discussed in the context of organizational learning (March, 1991), strategic management (Abell, 1999, Jansen et al., 2008, Markides & Charitou, 2004, Markides & Oyon, 2010), innovation (O'Reilly & Tushman, 2004, He & Wong, 2004), organizational design (Jansen et al., 2005) and organizational behaviour (Birkinshaw & Gibson, 2004).

However, as Gupta et al., (2006) points out: "although new consensus exists on the need for balance, there is considerably less clarity on how the balance is achieved". Currently, there are three somewhat competing views on the balancing of exploration and exploitation. The oldest view is for the organisation to structurally separate the activities of exploration and exploitation and house them within independent business units (Tushman & O'Reilly, 1996). Such structural ambidexterity emphasises the activities as fundamentally incompatible and essentially competitive over resources and the organisation's time (March, 1991). A competing view, temporal ambidexterity, maintains a temporal separation. Now the organisation

sequences or cycles through alternating explorative and exploitative activities (Simsek, 2009). More recent conceptualisations have attempted to do away with the view that exploration and exploitation are competing activities in favour of recasting them as complementary activities. In this case of contextual ambidexterity, the activities co-exist within a single business unit. In the exposition of both structural and temporal ambidexterity, finding the balance between exploration and exploitation is typically a role assigned to senior management. Benner and Tushman (2003) for example, have noted that exploratory units are typically small, decentralized, and with flexible control processes in contrast to exploitative units that are characteristically larger and with less flexible processes. the actions of senior management ensure strategic coherence and appropriate resource allocation (Lubatkin et al., 2006). Such action includes the crafting of a shared vision, contingency rewards and transformational leadership (Jansen et al., 2008). This can also include developing an organisational culture that tolerates and rewards differences while promoting the active involvement of members in building the organisation's strategic goals (Wang & Rafig, 2012). There is a different balancing mechanism promoted for contextual ambidexterity (Gibson & Birkinshaw, 2004). Here, the balancing between exploration and exploitation is an emergent, bottom up process, that is dependent upon the individual judgement as to how they spend their time.

Nonetheless, the contribution of middle managers in this balancing process is less often acknowledged in any of the three presentations of ambidexterity, structural, temporal or contextual. Jansen et al., (2009) argued for the use of cross-functional interfaces (such as liaison personnel, task forces and teams) as a means of enabling knowledge exchange within organizational units that manage exploration and exploitation. At the group level Fang et al., (2010), examined how exploration and exploitation can be successfully managed through semi-autonomous subunits with a small fraction of cross-group links such as inter-team liaison roles, personnel rotation or interdivisional task forces.

Mechanisms and Processes: Capabilities and Key Activities

Following a systematic approach involving strict inclusion and exclusion criteria¹ to ensure that all the articles are relevant to the focus on middle managers in the strategy processes in general and organizational ambidexterity particularly, this study analyses 98 journal articles published up to December 2015. Specifically, this study identifies six strategic capabilities of middle managers² that are pertinent to achieving organizational ambidexterity: strategic sensemaking capability, political capability, administrative capability, learning capability, entrepreneurial capability and balancing capability. Capability in this study is defined as "the capacity to perform a particular activity in a reliable and at least minimally satisfactory manner" (Helfat & Winter, 2011). Several features in this definition are worth noting: first, the activity has a specific purpose and an intended outcome. Thus, "capabilities fill the gap between intention and outcome, and they fill it in such a way that the outcome bears a resemblance to what was intended" (Dosi, Nelson & Winter, 2000). Second, a capability

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¹ A detailed account of the methods used for the systematic literature review, including the article search boundaries, inclusion and exclusion criteria, steps taken to screen the articles, and codes used to analyze the data is available upon request.

² A detailed analysis of each of the six strategic capabilities is available upon request. This includes its definitions, how managers develop this capability, how this capability supports middle managers in the strategy process in general and organizational ambidexterity in particular, and what affects middle managers in the developing of this capability.

enables reliable, repeated activity; otherwise, no real capacity to perform an activity exists (Helfat & Winter, 2011). The six strategic capabilities are sketched briefly below.

(1) Strategic sensemaking capability

Sensemaking is a social process of meaning construction and reconstruction through which managers understand, interpret, and create sense for themselves and others (Balogun & Johnson, 2004). Sensemaking is a fundamental starting point for any strategic activity and refers to a wide range of processes which middle managers undertake to interpret and sell strategic developments at the organizational interfaces. Several scholars have suggested that strategic sensemaking and sensegiving are two complementary and reciprocal processes (Rouleau, 2005; Hensemans, 2015). Sensemaking has to do with the way managers understand, interpret, and create sense for themselves based on the information surrounding the strategic development, while sensegiving is concerned with their attempts to influence the outcome, to communicate their thoughts about the change to others, and to gain their support (Rouleau, 2005).

Middle managers' sensemaking capability is critical to the roles they perform. They need to engage in a range of sensemaking activities, upwards with their senior managers, laterally with their peers, and ultimately downwards with their teams to aid their interpretation of the strategic intent and negotiate how the change should be taken forwards (Bagolun, 2006). Skilled middle managers can use their knowledge of their organizational context and to influence those around them to adopt their point of view. Thus, middle managers become more than the intermediaries of senior managers' plans as they must undertake change themselves, yet also then implement the strategy within their part of the organization and influence others in interpreting, accepting and adapting the strategy.

(2) Political capability

Unlike strategic sensemaking capability that is a well-developed concept, political capability has no clear definitions in the literature. A political touch is in most decision-making activities due to the social construct of an organization and implication on power, resources, and interrelations (Narayanan & Fahey, 1982). Keys and Bell (1982, p. 60) highlight: "many of the skills middle managers are expected to exercise will never be mentioned to them by top management. They are simply expected to show prudent and effective behaviour in these areas. Two such areas are maintaining sensitivity to the political environment and maintaining loyalty to the superior."

Many strategic processes are less of rational problem-solving exercises and more political activities. For example, strategic planning is seen as a socio-political exercise (Schilit, 1990; Mintzberg, 1979). Several key activities can be identified as socio-political in nature and as core to the role of middle managers as "linking pins" of an organization, especially in organizational championing (to a large extent, a political activity according to Burgelman, 1983), issue selling (Dutton et al., 1997), and brokerage and boundary spanning (Glaser et al., 2015). This bundle of activities is fundamentally based on middle managers' capability to navigate politically in the organization and to utilize their social-capital. Rouleau and Balogun (2011, p.953) summarize that "there is increasing evidence from research on both senior and middle managers of their need to be 'politically able', in other words, to be able to influence others, if they want to affect the course of the events around strategic change". For middle managers, the requirements for political capabilities is further amplified by their organizational

positions as they must politically engage in four directions: to the senior management, the direct subordinates, their peers and the outside (Keys & Bell, 1982).

(3) Administrative capability

Administrative capability can be traced back to Henri Fayol (1949) who identified five functions of management and labelled them as: planning, organizing, commanding, coordinating and controlling. However, similarly to political capability, there is no clear definition of administrative capabilities in the research although the phrase is used in many papers. For example, Teece (1998) associates administrative capability with organizational planning and control at the opposite of entrepreneurial capability. Nonetheless, many researchers consider administration as a core role of middle managers (McConville, 2006; Floyd & Wooldridge, 1997). The key elements of middle managers' administrative capability are on one side in terms of planning, budgeting and control that assist in establishing goals, applying for resources, in monitoring and controlling the performance and use of these resources (Burgelman, 1983; Ismail & Ghozali, 2015; Marginson D. E., 2002), and on the other side on governance mechanisms to manage roles and decision rights, policies and structures (Linder & Bothello, 2015; Hornsby, Kuratko, & Zahra, 2002; Sy & D'Annunzio, 2005; Carney, 2004).

(4) Entrepreneurial capability

This fourth capability is often seen as opposite to the previous capability with the focus on exploration and strategic renewal. This is the ability of middle managers to identify, support and realise new opportunities. Teece (2012) emphasizes that entrepreneurial managers create markets and orchestrate and reconfigure resources to realize opportunities. Floyd and Wooldridge (1999) consider middle management as forming the locus of corporate entrepreneurship activities through identifying entrepreneurial opportunities, developing entrepreneurial initiatives, and renewing organizational capabilities. Middle managers are pivotal in acting as change agents, helping to find innovative solutions to problems, taking risks in implementation and learning from experience for the future (Wolcott & Lippitz, 2007; Kuratko et al., 2005; Burgess, 2013). As Brandt (1986, p.54) has noted, "Ideas come from people. Innovation is a capability of the many. That capability is utilized when people give commitment to the mission and life of the enterprise and have the power to do something with their capabilities." In doing so, middle managers perform dual roles as both change implementers and change initiators (Wet al., 2018). Taking a leadership position, accepting risks and tolerating failure are important aspects of middle management behaviour here (Wolcott & Lippitz, 2007; Kuratko & Morris, 2003; Floyd & Wooldridge, 2000).

(5) Learning capability

It is widely accepted that a firm's performance is enhanced by developing a learning-oriented organization and that learning organizations are better fitted to face the challenges that rapid market changes pose to firms in hyper-competitive business environments due to their ability to adapt in these circumstances (D'Aveni, et al., 1995). Members of learning organizations must interpret the world around them, to uncover new opportunities, to focus existing resources efficiently, and to accumulate new resources when existing ones become obsolete.

Middle managers play a critical role in the learning process and knowledge management, and therefore in fostering and enabling a learning organization (Costanzo & Tzoumpa, 2008).

Nonaka and Takeuchi (1995, p.125) proposition that, "knowledge is created by middle managers at the intersection of the vertical and horizontal flows of information within the company", middle managers should be able to identify the knowledge gaps and communication problems between groups and bridge them". Participating in multiple conversations, middle managers foster a diverse learning process, making them the main agent in the development of organizational capabilities and renewal activities (Jackson & Humble,1994; Tippmann, et al., 2013). Middle managers interpret information and knowledge from top managers to make it meaningful to those below them in the hierarchy who are responsible for technical activities. At the same time, they interpret information and knowledge from functional managers about technical and day-to-day realities of the organization (Dutton & Ashford, 1993).

(6) Balancing capability

Middle managers jobs have become more generalist with increased responsibilities and a wider range of tasks with the consequence of them needing to develop abilities to "deal with continuous change and uncertainty, to forge and manage complex relationships both inside and outside the organisation, to use initiative in meeting increasingly difficult and broad based goals" (Dopson & Neumann, 1998). Balancing refers to middle managers ability to find ways of facilitating exploration and exploitation activities as appropriate, at the operational level (Burgess et al., 2015, Turner, et al., 2013). Middle managers find themselves in the paradoxical situation of being influential and not influential and faced themselves with a wide variety of seemingly irreconcilable organisational paradoxes from above and below. Ven de Ven and Poole (1988, p.22) define paradox as "the real or apparent contradiction between equally wellbased assumptions or conclusions". In contrast to problems, which may be simple or complex, but once a solution is found and implemented are solved, paradoxes are hard contradictions and cannot be resolved - they must be vigilantly balanced. Therefore, in dynamic environments, middle management has, above all, the task of guaranteeing the balancing process between conservation and change, between order and freedom, between security and development and other opposites (Kasper, 1987).

Discussion: Towards a Conceptual Framework

Interrelationship between strategic capabilities

The extant literature examined and discussed the identified middle manager capabilities predominantly in isolated contexts, although several relations have been indicated in some of the articles. Around half of the papers in the scope touched on different middle manager capabilities in their research, but very few have examined the interrelations as part of their studies. Table 2 indicates the interrelations between the capabilities in the literature (multiple mentioning per paper possible). The strongest interrelations existed between sensemaking and political capabilities as well as balancing and political capabilities. There is consensus in the research that both sensemaking and balancing are social-political process (Hensmans, 2015; Beck & Plowman, 2009; Luscher and Lewis, 2008).

Table 2: Interrelationships between Capability Themes

	Sensemaking	Political	Administrative Enterpreneur		Learning	Balancing
Sensemaking						
Political	13					
Administrative	1	7				
Enterpreneur	3	9	3			
Learning	2	5	5	4		
Balancing	7	14	2	4	4	

Strategic Capabilities and Middle Management Roles

Strategic frameworks in middle management research, especially with a view on the strategy process have been largely focused on the role of middle managers and less on their capabilities to fulfil their roles and meet their environmental challenges. The identified capability themes in this review are congruent with the roles suggested in the extant literature.

Currier and Procter (2005) suggested that the most systematic, comprehensive and widely cited attempt to explore middle managers' contribution to strategy has been made by Floyd and Wooldridge. Floyd and Wooldridge's (2000) framework of middle manager roles suggests four types of involvement and enhanced roles of middle managers in strategy, namely: Alternatives, Sensitizing Information, Championing Facilitating Adaptability Implementation of a deliberate strategy. The proposed roles in Floyd and Wooldridge's classic definition can be aligned with the six suggested strategic capability themes: Sensemaking capabilities ('they infuse information with meaning', 'these subjective interpretations may lay the groundwork for strategic change'), Political capabilities ('middle managers use information to promote their own agendas'), Administrative capabilities ('middle managers' efforts to deploy existing resources efficiently and effectively'), Learning capabilities ('middle manage facilitate learning'), Entrepreneurial capabilities ('middle managers select certain projects, nurture them with seed money, and when they prove successful, advocate them as new business opportunities'), and Balancing capabilities ('even in fairly stable situations, priorities must be revised as conditions evolve and new information unfolds').

When compared with Key and Bell's (1982) framework "Four Faces of the Fully Functioning Middle manager" the suggested functions show a large overlap with the identified capabilities. While "Upward facing" is largely congruent with Floyd and Wooldridge's concept of Championing Alternatives, "Downward Facing" reflects a strong notion of Sensemaking and Managerial Capabilities. The "Sideway view" is described as a 'highly political one, where subtle influence must be built', reflecting the Political capabilities required of Middle managers. Outward facing reflects the use of Knowledge capability to learn from the outside developments. Given the four directions and the conflicting roles involved, the "Balancing" act was seen by Key & Bell as central in managing the four directions as "Middle managers are frequently caught in cross fires between internal departments and outside customers or suppliers, while they must simultaneously present the proper face upward to their superiors, downward to their employees, laterally to their peers, and outward to outside groups" (Key & Bell, 1982). Balogun (2003), however, saw the main emphasis on the Sensemaking and

Managerial functions as she explained that "broadly, the middle managers were engaging in two types of activities – sensemaking, and coordination and management". By contrast, literature focusing on the strategic renewal role of middle managers suggested a focus more on entrepreneurial functions as innovators and risk-takers (Burgess, 2013; Pappas & Wooldridge, 2007).

The Conceptual Framework

Our aim in this section is to integrate the findings and the six identified capabilities considering the interrelation and strong linkages between the dimension and towards an Organizational Ambidexterity capability view of Middle managers. The figure below shows the conceptual framework derived from the findings of this systematic review.

Viewing the six middle managers capabilities collectively, highlights the range of activities associated with the pursuit of organisational ambidexterity. This suggests that an individual manager is unlikely to possess all the capabilities required, indicating that the pursuit of organisational ambidexterity is a collective act performed by middle managers with varying degrees of the six capabilities. Different managers are likely to exhibit differing tendencies towards exploration and exploitation. Moreover, differing combinations of the six capabilities are implied depending upon whether the focus is exploration or exploitation. One influencing factor here is how organisational ambidexterity is achieved: structural; temporal or contextual.

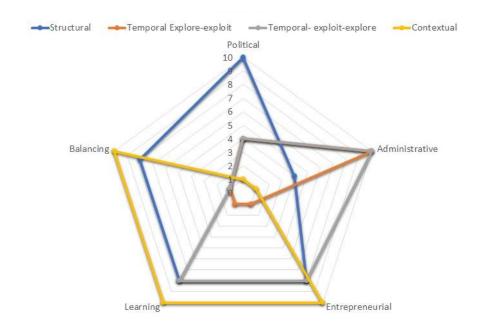
How middle managers capabilities might vary with the type of ambidexterity pursued, is shown in Figure 1. At one extreme, 'contextual', power and authority within the organisation is decentralised. Acting as autonomous units, there is less call on middle managers to have to deploy political and administrative skills in seeking resources and gaining agreement on action. Middle managers are simultaneously involved in telling people the stories they wanted to hear about the strategic direction (translating), inscribing their speeches and acts with appropriate socio-cultural codes to reinforce the meaning (overcoding), producing subjective and emotional effects around the change (disciplining), and providing a set of good reasons to adopt the direction (justifying) (Weick et al., 2005). Balancing capability is also likely to be a high requirement. Nonaka and Takeuchi (1995) cast middle managers as active knowledge brokers operating at the intersections of information flows across the organisation. Rather than passive recipients of information, middle managers help recognise knowledge gaps and act as communication agents across different teams and groupings in the organisation. As Currie and Procter (2005) notes, given their place in the organisation, the very nature of the role of middle managers here is to manage the contradictory expectations of key stakeholders. Faced with role conflicts and ambiguities, managers navigate emergent contradictions by orchestrating the necessary trade-offs between exploration and exploitation, creating workable compromises (O'Reilly & Tushman, 2011). In managing paradox, managers engaging in adaptive strategy implementation behaviours develop cognitive and behavioural complexity, and emotional equanimity to learn, recognize, and embrace the interrelated relationships of underlying tensions (Huy, 2002; Lewis, 2000; Poole & Van de Ven, 1989).

In contrast, 'temporal' indicates two scenarios of sequential focus: exploration – exploitation; and exploitation-exploration. These scenarios are built on the primary focus of the organisation, whether it be sequencing exploration or exploitation. When these activities are sequenced, there is less call on the manager's political ability to influence the strategic direction of the organisation. Similarly, temporal or cyclical sequencing of exploration and exploitation by the

organisation erodes the need to have middle managers actively balancing the activities internally. Temporal sequencing also constrains middle managers ability to act politically, especially towards senior management, because of limited appropriate "policy windows" (Ren and Guo, 2011) and context favourability (Dutton et al., 1997). Administrative capability though becomes important in cycling smoothly from one state to another. Three capabilities, sensemaking, entrepreneurial and learning, provide contrasting or alternating middle manager abilities in temporal sequencing of exploration and exploitation. When exploration is the focus, interpreting the wishes of senior management is less important, as is creating new markets and capitalising on opportunities. However, these capabilities are strongly required when the focus turns to exploitation.

Finally, 'structural' illustrates an organisation deploying separate structures for exploration and exploitation. Under such structures, pursuing both exploration and exploitation activities (albeit independently) requires almost all of the middle managers capabilities. Political capability is a strong requirement here as middle managers location provides access to the information and resources needed to anticipate, prioritise and realise senior management's expectations (Glaser et al., 2015). Exceptionally, there is less need for middle managers administrative capability because the structure of the organisation itself embeds formal, institutional, processes of control as appropriate (Fauré & Rouleau, 2011).

Figure 1: Integrated Framework of Middle Managers Capabilities in Achieving Organisational Ambidexterity



Conclusion

Writing in 2008, Wooldridge et al., called for more research into the role of middle management in the ambidexterity perspective, arguing that this was a high priority area. Comparatively little follow-up has taken place, as Burgess et al., (2015) notes, much of the literature on organisational ambidexterity continues to explore the role of senior managers. Our systematic review returned a relatively low number of articles, suggesting that there is much to learn about middle manager involvement in achieving organizational ambidexterity. This is complicated by the differing views on how ambidexterity is pursued and in particular, whether it is best viewed from a continuum or orthogonal perspective (Gupta et al., 2006; Papachroni, et al., 2015).

As a starting point, based on a systematic analysis of the literature, we identified six capabilities needed by middle managers in organisational ambidexterity processes. These capabilities formed the foundation of a conceptual framework that explores the possibility of differing portfolios of middle manager capabilities coming into play depending upon the form of organisational ambidexterity pursued. This suggests that the role of middle managers in organisational ambidexterity may be more nuanced and differentiated than is currently acknowledged. Of course, this is a preliminary outcome, more work needs to be completed in teasing out this interplay between the six capabilities and organisational ambidexterity, not least in empirical testing.

There also remains an important research opportunity in exploring the potential negative impacts and downsides in relation to the identified capabilities. Although issues related to role expectations and role conflicts are examined in the literature, research to examine negative side effects in relation to any of the identified six strategic capabilities of middle managers is limited. As an example, Shi et. al. (2009) suggests that future research should examine the political barriers and the negative impact politics and intentional use of power and political influence may play. Or similarly, several researchers suggest tensions between the stability and control-oriented basis of administrative capabilities and that subsequent studies should examine how these tensions are addressed at middle management level (Marginson, 2002, Marginson & Bui, 2009). This view is particularly important in relation to a dynamic perspective as this may increase tensions and possible conflicts.

Finally, there also seems to be a gap in the current body of literature regarding the link between individual-level capabilities or coping strategies, and organizational capabilities. The importance of the individual-level characteristics (like individual ambidexterity) have been examined in various papers (Mom et al., 2009; Torres et al., 2015; Burgess et al., 2015), but little on how this supports or drives organizational level capabilities, especially from an organizational ambidexterity view.

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