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TOWARDS A SYSTEMATIC APPROACH TO REVIEWING THE STRATEGIC ALIGNMENT LITERATURE

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Abstract:

Doctoral dissertations within the IS domain presented at viva voce examinations, lack systematic and structured approaches towards the review of literature. This paper outlines a structured approach to undertaking a systematic qualitative review of the strategic alignment literature within the IS domain. The approach is guided by a six stage process and utilises a Strategy-as-Practice lens to analyse the literature. The analysis is undertaken by employing a framework constructed from a Strategy-as-Practice typology, a classification scheme from the coding method of the constructivist approach to grounded theory, and the identification of practices as bundles of shared routines. This detailed analysis offers a range of unique perspectives that have not to-date been clearly articulated within the strategic alignment literature, thus enabling a highly novel written review as part of a doctoral dissertation.

Keywords: Systematic literature review, Information systems, Strategic alignment, Strategy-as-Practice, Grounded theory.

1. Introduction

This paper outlines an approach to undertaking a systematic qualitative review of literature within the information systems (IS) domain. The rationale for offering such an approach at this time is rooted in the lack of a systematic and structured approach to such reviews so often evidenced in doctoral dissertations presented at viva voce examinations (McDonagh, 2014). By way of enlivening the suggested approach, the paper focuses on the strategic alignment (SA) literature which rightfully falls within the IS strategy domain. The approach is deepened through the use of a conceptual lens drawn from the Strategy-as-Practice literature.

In section 2, SA is located as one of three core themes within the IS strategy literature (Galliers, Merali et al. 1994, Teubner 2013) and its critical nature is elucidated by summarising the views within academia and practice. An overview of the approach we espouse to undertaking a review of the SA literature is provided in section 3. Our review of the SA literature is guided by a six stage process developed from a range of other authors' approaches to literature reviews (Tranfield, Denyer et al. 2003, Okoli and Schabram 2010, Wolfswinkel, Furtmueller et al. 2013). Sections 4 through 9 are dedicated to employing this process, as a means of demonstrating how to execute a systematic review of the SA literature in a qualitative manner, utilising a Strategy-as-Practice lens. The paper draws to a close in section 10.

2. Locating Strategic Alignment

The strategic value of IS to organisations is reflected in the stream of research consisting of three closely related sets of literature developed since the late 1970s within the IS strategy domain (Chan and Huff 1992, Ward 2012). These sets comprise; IS for competitive advantage, strategic information systems planning (SISP), and strategic alignment (SA) (Chen, Mocker et al. 2010, Merali, Papadopoulos et al. 2012). Each literature set is centred around the key concept of IS strategy, which is in turn a major element of corporate strategy (Pyburn 1983).

SA assists with the acquisition and deployment of IS that are compatible with the organisation's competitive requirements (Grover and Segars 2005). This union between IS and business strategy is a central quest in IS strategy research (Galliers, Merali et al. 1994, Tanriverdi, Rai et al. 2010). With its emphasis on aligning IS with an organisation's objectives, SA remains a focus of attention for both research and practice alike (Segars and Grover 1999, Chen, Mocker et al. 2010, Merali, Papadopoulos et al. 2012), primarily because of its potential to contribute towards enhanced organisation performance (Chan and Huff 1992, IBM 2009, Chen, Mocker et al. 2010, Computer Sciences Corporation 2011).

SA has been researched extensively since it first emerged as a theme within the IS strategy domain in the early 1980s. Since then, perspectives on SA have evolved due to its complexity and the ever changing business environment it seeks to address (Chan 2002, Merali, Papadopoulos et al. 2012). Today's challenge is not to achieve SA only when plans are devised, rather it is to continuously align IS and business goals by periodically addressing all major aspects of related IS planning (Salmela and Spil 2002).

A number of surveys were carried out involving institutional and board members of the Society for Information Management (SIM) in the USA. Luftman and McLean (2004) found from twenty five managerial issues, SA was the top concern across all industries. This finding was in stark contrast to previous survey findings undertaken of SIM members, who in terms of top management concerns ranked SA 9th in 1994, 7th in 1990, 5th in 1986, 7th in 1983 and 9th in 1980. Similar surveys of SIM members were carried out by Luftman (2005), Luftman, Kempaiah et al. (2006), Luftman, Kempaiah et al. (2009) and Luftman and Ben-Zvi (2011), where again SA was the top management concern for IS executives. Luftman and Kempaiah (2008) and Luftman and Derksen (2012a) found SA was the second most important concern for IS executives and Luftman and Ben-Zvi (2010b) found it dropped to the 3rd most important concern mainly due to a tightening on IS investment within those organisations surveyed.

A global, as distinct from a USA perspective, on key IS management issues was obtained in a survey carried out by Watson, Kelly et al. (1997). They found SA to be

among the top ten IS management concerns as a consequence of the strong strategic focus placed by IS management on how IS can support the organisation. Luftman and Ben-Zvi (2010a) extended their study beyond the USA to include results from Chinese and European organisations, and found SA to be the second most important concern for IS executives. Two other studies regarding top concerns for IS managers that surveyed beyond the confines of the USA are; Luftman and Derksen (2011) who found SA to be the top concern, and Luftman and Derksen (2012b) who found SA to be the second top concern. These global studies add support to what stems from the USA based studies insofar that the importance of SA is often gauged by return on investment, which in turn leads organisations seeking higher/more mature levels of SA to increase organisation performance.

Caffrey and McDonagh (2008) assessed the literature on critical issues in the management of IS from a longitudinal perspective between 1980 and 2006. Unlike the surveys discussed above, where the views of IS executives alone were obtained, Caffrey and McDonagh (2008) analysed studies that included the views of both IS and non-IS managers. They found strategic planning to be the top concern with SA being the third most important. This finding suggests SA is a top management concern for all executives.

These studies demonstrate that because SA can impact an organisation's performance, SA remains a top concern for IS executives (and some business executives) since the mid-1980s and is likely to remain so into the future.

3. An Approach to the Review Process

Having established that SA is both a central theme within the IS strategy literature and a top concern for IS executives, we now present an approach to reviewing the SA literature. Our approach is systematic insofar that it follows a replicable and transparent process, while at the same time minimises bias as we undertake an exhaustive literature search (Tranfield, Denyer et al. 2003, Okoli and Schabram 2010). Our approach also contains elements of a qualitative systematic review in that it searches for concepts that are within and/or across individual studies and are

synthesised through the application of a qualitative narrative synthesis i.e. grounded theory coding (Grant and Booth 2009). Therefore we offer an approach towards a systematic review of the SA literature in a qualitative manner, an approach we did not come across from our reading of the SA literature to date.

Our approach makes four contributions. *First*, it provides an analysis of the SA literature by means of a framework we developed from combining a Strategy-as-Practice lens as proposed by Jarzabkowski and Spee (2009), with a classification scheme constructed from the coding method of the constructivist approach to grounded theory as proposed by Charmaz (2006), and by identifying practices as bundles of shared routines as espoused by Whittington (2006a) and Jarzabkowski and Spee (2009). *Second*, it assists in identifying gaps in the literature and offers a basis to propose new research avenues for SA, thus providing clear direction for members of the academic community interested in undertaking such research. *Third*, it enables practitioners to evaluate the current “state of play” within the SA domain, and *fourth*, it offers an abundance of material for education and development purposes.

To guide us in the development of our approach, we constructed a six stage process by adapting and amalgamating parts of Tranfield, Denyer et al.’s (2003) stages of a systematic review, Okoli and Schabram’s (2010) systematic guide to literature review of IS research, and Wolfswinkel, Furtmueller et al.’s (2013) grounded theory literature review method. The six stages consist of (i) clarifying the purpose of the approach; (ii) determining appropriate resources; (iii) performing a literature search; (iv) filtering and classifying the sample; (v) analysing the literature: and (vi) writing the review. We address each of these stages in greater detail in the sections that follow.

4. Clarifying the Purpose of the Approach

The full potential of IS often not realised because what’s written in strategic plans can differ greatly to what is implemented in practice (Avison, Jones et al. 2004). This difference is a consequence that regularly results from an absence of the promised resources to implement IS (Lederer and Sethi 1988, Earl 1993). The SA literature suggests that SA results more from relationships between people than from any

methodological analysis or business strategy (Tan and Gallupe 2006, Silvius 2007). This attention to the relationships between people points towards the need for practice based studies at all levels (Motjolo pane and Brown 2004, Schlosser, Wagner et al. 2012), rooted in our everyday experiences so as to aid our understanding of what practitioners do to help and/or hinder the achievement of SA (Ciborra 1997, Gast and Zanini 2012). These calls for practice based studies mirror the practice turn in the social sciences that started back in the 1980s (Whittington 2006b, Regner 2008). With regard to practice theory, the interrelationship between people's day to day activities and societal matters is of the utmost importance because individual activities are always rooted in a labyrinth of social practices (Whittington 2006b, Vaara and Whittington 2012). Therefore, it is hardly surprising that the Strategy-as-Practice perspective has now entered the literature within the strategic management domain (Jarzabkowski 2004, Chia and MacKay 2007) and has also become part of the IS strategy research agenda, including SA (Henfridsson and Lind 2013, Hiekkänen, Helenius et al. 2013).

In their review of the SA literature, Chan and Reich (2007:310) call for the "voices of the participants to be heard". In concluding his review of the SA literature, Nickels (2004) proffers that other important dimensions besides the structural dimension proposed in SA models be utilised. This analysis is supported by Renaud and Walsh (2010) who from their review of the SA literature, conclude the opinions of all stakeholders should be taken into account and not limited to the opinions of senior management alone. Indeed, Grant's reflections in 2008 (cited in Hiekkänen, Helenius et al. 2013) call for new concepts and theories that can give birth to a new paradigm. One such paradigm is the Strategy-as-Practice lens which can elucidate practice, thus bringing a new dimension to reviewing the SA literature. By undertaking a review of the SA literature through a Strategy-as-Practice lens, we move beyond extant reviews and offer the opportunity to extend the research agenda to include all stakeholders.

We developed our approach to reviewing the SA literature with two objectives in mind. *First*, our approach must facilitate a systematic review of the SA literature in a qualitative manner, and *second*, it must provide the basis to review the SA literature through a Strategy-as-Practice lens with an emphasis on all three Ps (practitioners,

practices and praxis). By achieving these objectives, both individually and collectively, we develop a novel approach that can be used to review the SA literature.

5. Determining the Appropriate Resources

The major contributions are to be found in leading journals (Webster and Watson 2002) and because IS is an interdisciplinary field and our focus is on issues pertaining to SA, we extended our search to include journals from the strategic management domain.

To determine the leading journals we consulted the Association for Information Systems (AIS) website (2010) <http://ais.site-ym.com/?AboutAIS> as the organisation is “*the premier professional association for individuals and organisations who lead the research, teaching, practice, and study of information systems worldwide.*” The website contains a list of senior scholars’ basket of journals consisting of eight journals which are; European Journal of Information Systems, Information Systems Journal, Information Systems Research, Journal of AIS, Journal of Information Technology, Journal of MIS, Journal of Strategic Information Systems, and MIS Quarterly. Having obtained this list we then compiled a selection of journals from the strategic management domain. We consulted the Association of Business Schools Academic Journal Quality Guide (Harvey, Kelly et al. 2010) and selected two top grade (grade 4) journals, Strategic Management Journal and Harvard Business Review, one grade 3 journal, California Management Review, and one grade 2 journal, European Management Journal. While not exhaustive, this selection did provide us with a range of journals representing the strategic management domain.

We then searched for an article that reviewed the SA literature among the senior scholars’ basket of journals and found such an article by Chan and Reich (2007). The article includes an annotated bibliography from which we identified many of the journals noted above and others namely; IEEE Transactions on Engineering Management, IBM Systems Journal, Information and Management, Communications of the Association for Information Systems, Information Systems Management, Scandinavian Journal of Information Systems, and MIS Quarterly Executive.

Although the major contributions are to be found in journals, we also located a number of conference websites with a reputation for quality, the main ones being International Conference on Information Systems, American Conference on Information Systems, European Conference on Information Systems, and UK Academy for Information Systems. Lesser known conferences included Australasian Conference on Information Systems, Pacific Asia Conference on Information Systems, Mediterranean Conference on Information Systems, and Hawaii International Conference on System Sciences.

We then searched the websites of consulting firms and obtained a number of consulting and practitioner papers. Finally, we availed of Google Scholar to complete our search.

6. Performing the Literature Search

We scanned the table of contents for all journals listed above from 1983 to 2012, as 1983 was the first year we found any reference to SA within the literature. Likewise, we scanned the table of contents for all conference proceedings listed above from 1997 to 2012, as 1997 was the first year we found any reference to SA within conference proceedings. Using Google Scholar, we searched under the key words “strategic alignment” for the period 1983 to 2012, to capture articles we may have missed from our scanning exercises. We then applied the “go backward” technique advocated by Webster and Watson (2002) by reviewing the citations of all articles found, followed by the “go forward” technique advocated by Webster and Watson (2002) to identify articles that cited key articles identified in the previous steps. Finally, we searched the websites of consulting firms and obtained a number of consulting and practitioner papers. Therefore, IS research literature from the leading peer-reviewed journals served as the main source of literature and it provided ample theoretical background and pointers for additional references (Levy and Ellis 2006). This process resulted in the identification of 268 articles.

7. Filtering and Classifying the Sample

The first step involved filtering out doubles. Perhaps due to the manual nature of our search, only one double was included. The next step involved manually scanning abstracts and in some cases it was also necessary to delve further into the paper to obtain a better understanding of the paper's key features. The main aim of this step was to exclude articles that didn't deal with SA as a core theme, but merely referred to SA as part of general coverage. In addition, other articles were identified that covered the same contributions by the same authors, in which case the most recent was kept and the others were discarded.

This process resulted in a total of 197 articles, all with a clear focus on SA. Of the 197 articles, 132 are journal articles, 44 are conference proceedings, 17 are consultant/practitioner papers while 4 are working papers. Of the 197 articles, 173 are empirical of which 115 are positivist, 56 interpretive and 2 don't fall into either category.

The journal with most articles cited (15 in total) is MIS Quarterly Executive, with the first article appearing in 2002, the year in which the journal was launched. This journal's prime objective is to be "*the premier resource of information system articles that target a managerial audience*", Rockart (2002). Other journals ranked highly by the Association of Information Systems and identified by us include Information and Management, MIS Quarterly, Journal of Management Information Systems, and Journal of Strategic Information Systems.

By far the most popular approach to enquiry within the literature is a survey based approach. 91 of the of the articles take a survey based approach, 58 take a case study based approach and a further 7 take a mixed survey/case study approach. An interesting development is the practice by Campbell, Kay et al. (2005) who undertake enquiry using a grounded theory/exploratory approach. A total of 8 articles applied this approach to enquiry, with the first being in 2005. Model development/measurement is the primary approach to enquiry within 7 articles. Prescriptive and descriptive reports are the approaches applied in 15 and 1 articles respectively. A review of the SA literature is carried out in 9 articles while a lone article applies an action research approach.

94 articles include involvement from the USA. 58 are based solely in the USA while the remaining 36 are multinational studies that include the USA. A further 27 article studies are based in Europe, while 10 are based in Australia and 8 in Canada. 38 articles obtain their data from a variety of countries around the globe while the remaining 20 do not identify the location of their studies. A major change commenced in 2000, as the location of SA studies began to include many countries outside North America. In addition, SA studies involving multiple locations began to emerge in 2000 reflecting a new area of interest within the SA literature, perhaps influenced by the efforts of some global organisations to align their company-wide IS.

Of the 173 empirical articles, 84 are dedicated to the private sector alone. A total of 71 include a mixture of private and public service organisations while 18 concentrate solely on public service organisations. It was not until the early 2000's that researchers started to include the public sector in their studies in any significant way.

Business and IS executives (including CEOs, CIOs and a CEO/CIO combination) form the main body of informants, accounting for 87 of the 197 articles. In many cases the authors of these articles argue that neither business executives alone, nor IS executives alone, can provide a balanced view of SA and what's required is a joint perspective. Contrary to this view are 33 articles that seek the views of IS executives alone, with the authors arguing only the IS executive can fully understand the technical aspects of SA. Another contrary view is put forward in 22 articles where the views of business executives alone are sought because many of the authors believe the business view should determine direction, with IS following the business lead. In latter years a strong tendency emerged to include staff as well as executives, with the authors of 20 such articles arguing alignment is required at the tactical and operational levels of the organisation as well as the strategic level. 6 articles provide the views of the researchers and consultants while 3 sought the views of IS professionals. 26 articles did not provide any details on informants.

8. Analysing the Literature

To achieve the two objectives established in the initial stage of the review process, we undertook a systematic and comprehensive analysis of the literature from a Strategy-as-Practice perspective. Such a perspective concentrates on studying three Ps i.e. the practitioners (people who do the work of strategy), the practices (shared routines and material tools used to undertake the work) and the praxis (stream of activity undertaken by practitioners by which strategy is attained over time) (Whittington 2006b, Jarzabkowski, Balogun et al. 2007, Jarzabkowski and Spee 2009). In order to study the three Ps within the SA literature, we constructed a lens by combining the Strategy-as-Practice typology developed by Jarzabkowski and Spee (2009) with the coding system for the constructivist grounded theory method espoused by Charmaz (2006), thus contributing to the ever widening constructivist genre in strategic management research (Mir and Watson 2000). In addition, we identified practices as bundles of shared routines as espoused by Whittington (2006a) and Jarzabkowski and Spee (2009).

Jarzabkowski and Spee (2009) applied their typology to review the Strategy-as-Practice literature based on how studies conceptualise the strategy practitioner and the level of strategy praxis. Their typology does not address practices or praxis, which are both critical components of the Strategy-as-Practice research agenda (Whittington 2003, Jarzabkowski, Balogun et al. 2007). The typology part of our lens enables a review of the SA literature by conceptualising the SA practitioner and the level of SA praxis, while the grounded theory part of our lens enables the classification of the various concepts within the SA literature and identification of the praxis within. Such a classification follows the approach taken by Yang and Tate (2012) who applied the grounded theory method to construct a classification scheme for cloud computing research from the cloud computing literature. This approach aids a high quality review through the use of grounded theory and its analytical focus on concepts (Webster and Watson 2002, Wolfswinkel, Furtmueller et al. 2013). Therefore, by constructing a lens from both a Strategy-as-Practice typology (Jarzabkowski and Spee 2009) and the constructivist grounded theory method (Charmaz 2006), we attend to practitioners and praxis in a coherent and comprehensive manner that the Strategy-as-Practice typology on its own does not facilitate.

Whittington (2006a) and Jarzabkowski and Spee (2009:81) found the practice aspect of their review to be most challenging “*because so many different concepts of practice are used*” within the Strategy-as-Practice field. They note that practices are a complex bundle of interrelated routines and it is exactly this approach we take towards identifying practices within the SA literature.

Therefore, by combining the typology and grounded theory part of our lens, with the approach taken by Whittington (2006a) and Jarzabkowski and Spee (2009) towards practices, we were able to review the literature through a Strategy-as-Practice lens with an emphasis on all three Ps (practitioners, practices and praxis).

8.1 Typology of Twelve Possible Domains

Initially we developed a typology of nine possible domains based on how each of the 173 empirical articles conceptualise the practitioner and on how each seeks to explain the level of SA praxis. We deliberately excluded the 24 non-empirical articles because while it was possible to identify praxis, it was not possible to identify the level of praxis in such articles. We then increased the typology from nine to twelve possible domains to allow for the inclusion of individual actors outside the organisation (something Jarzabkowski and Spee (2009) do not do) and to help identify gaps in SA research.

Our typology is constructed in accordance with the rubrics set out by Jarzabkowski and Spee (2009). Practitioner comprises the individual practitioner as well as groups of practitioners, and each practitioner is either inside or outside the organisation. Activities are attributed to an individual practitioner alone such as IS manager (individual actor), or a group of practitioners such as IS managers (aggregate actors). In addition, the practitioner can either be internal to the organisation (e.g. IS manager, programmer) thus having a line or staff role within the organisation or external (e.g. IS consultant, contract programmer) thus brought into the organisation to undertake a specific task. Therefore, the four categories of actor within our typology are internal individual actors, internal aggregate actors, external individual actors and external aggregate actors. Praxis is an embedded concept that can be operationalised at any

three levels. The first is micro, which is an individual actor's or aggregate actor's experience of a particular episode such as a meeting or a decision. Second is meso, which is an individual actor's or aggregate actor's experience of events at the organisational or sub-organisational level such as implementation of a software package or a series of strategic actions. Third is macro, which is an individual actor's or aggregate actor's experience of events at the institutional level such as patterns of action within a particular industry e.g. strategic actions such as mergers undertaken by the Irish Institutes of Technology on foot of a directive from the Higher Education Authority.

By categorising the SA literature within the two dimensions of practitioner and level of praxis, we developed a typology of twelve domains applicable to the SA literature. This typology aids in our understanding of areas where the SA field is well researched, not so well researched and not researched at all. What follows is an explanation of our typology as it applies to the SA literature (figure 1).

Domain A contains no studies, indicating we didn't find any studies within the SA literature at the micro level of praxis where the practitioner is an individual actor. Studies within this domain would provide empirical evidence of the association between individuals and the micro level of praxis, thus opening up opportunities to delve into what individual practitioners do within their immediate environment while engaging in matters pertaining to SA. A possible research question applicable to this domain could be "What impact does the negotiating style of the IS manager pertaining to the IS capital budget have on SA?"

Domain B contains a total of four studies that help explain an individual's engagement at the meso level of praxis. One such study is that carried out by Preston and Karahanna (2009a) who investigate how the CIO goes about developing a shared understanding with members of the top management team, so as to facilitate SA within the organisation. A possible research question applicable to this domain could be "How does the IS manager's involvement in strategic planning impact SA within the organisation?"

Domain C contains no studies, showing we didn't find any studies within the SA literature at the macro level of praxis where the practitioner is an individual actor. Studies within this domain would provide empirical evidence of the association between individuals and the macro level of praxis, thus opening up opportunities to uncover what individual practitioners do at an institutional, market or industry level that impacts on SA. A possible research question applicable to this domain could be "How does the government CIO respond to advice received from the various Secretaries General, to improve SA across government departments?"

Level of praxis	macro	C n = 0	F n = 2	I n = 0	L n = 0
	meso	B n = 4	E n = 163	H n = 0	K n = 3
	micro	A n = 0	D n = 1	G n = 0	J n = 0
		Individual actor within organisation	Aggregate actor within organisation	Individual actor extra-organisational	Aggregate actor extra-organisational
Type of practitioner					

Figure 1 Typology of strategic alignment empirical literature by type of practitioner and level of praxis (adapted from Jarzabkowski and Spee 2009).

Domain D contains one study. Studies within this domain would provide empirical evidence of the association between aggregate actors such as IS managers and the micro level of praxis, thus presenting opportunities to study what aggregate

practitioners do within their immediate environment while engaging in matters concerning SA. The study undertaken by Tallon (2008) concentrates on the processes that contribute to SA. A possible research question applicable to this domain could be “How do the interactions between middle managers within an SISP workshop help shape SA?”

Domain E is concerned with examining the association between aggregate actors and the meso level of praxis. The SA field is dominated by studies within this domain with a total of 163 out of 173. Numerous types of studies exist within this domain but the key feature is mainly to do with what the classes of actors (e.g. IS executives, middle managers, business executives) do at the organisational or sub-organisational level and the resultant impact on SA. An example is the study undertaken by Chung, Rainer et al. (2003) where the authors found practices carried out by IS personnel in relation to enabling a flexible IS infrastructure, impacts positively on an organisation’s SA. Another study, carried out by Silvius (2007) concentrates on the relationship between IS and business professionals at an organisational level and found the relationship between these two groups of aggregate actors impacts far greater on an organisation’s SA than does adhering to a systematic methodology. A possible research question applicable to this domain could be “How does the participation of functional managers in IS governance contribute to their organisation’s SA?”

Domain F contains two studies. Studies within this domain would provide empirical evidence of the association between aggregate actors such as top management teams and the macro level of praxis, thus presenting opportunities to carry out research on what aggregate practitioners do at an institutional, market or industry level that impacts SA. The study undertaken by Hsu, Hu et al. (2006) concentrates on the alignment between each business strategy of over 3,000 government agencies in Taiwan with the National Archives Association technology strategy, whereas the study undertaken by Fedorowicz, Galinas et al. (2009) concentrates simultaneously on inter-organisational G2B (government to business) and G2G (government to government) initiatives. A possible research question applicable to this domain could be “How can the CIOs of the army, air corps, and navy, influence the selection of common systems so as to improve SA within the defence forces?”

Domain G contains no studies, showing we didn't find any studies within the SA literature at the micro level of praxis where the practitioner is an external individual actor. Studies within this domain would provide empirical evidence of the association between an external individual actor such as an IS consultant and the micro level of praxis, thus opening up opportunities to delve into what individual IS consultants do within an organisation's immediate environment while engaging in matters pertaining to SA. A possible research question applicable to this domain could be "What impact does the communication skills of the external SISP facilitator within a workshop setting have on SA?"

Domain H contains no studies, reflecting we didn't find any studies within the SA literature at the meso level of praxis where the practitioner is an individual external actor. Studies within this domain would provide empirical evidence of the association between external individual actors such as an external networks consultant and the meso level of praxis. Such a study could carry out research into how an external networks consultant can influence SA within an organisation. A possible research question applicable to this domain could be "How does the network infrastructure design undertaken by the external networks consultant facilitate SA within the organisation?"

Domain I contains no studies, showing we didn't find any studies within the SA literature at the macro level of praxis where the practitioner is an individual external actor. Studies within this domain would provide empirical evidence of the association between external individual actors such as the Data Protection Commissioner and the macro level of praxis, thus opening up opportunities to uncover what individual practitioners do at an institutional, market or industry level that impacts SA. A possible research question applicable to this domain could be "How does the work undertaken by the Data Protection Commissioner impact SA across government departments?"

Domain J contains no studies, showing we didn't find any studies within the SA literature that examine the relationship between external aggregate actors and the micro level of praxis. Studies within this domain would provide empirical evidence

as to how external aggregate actors such as the Secretaries General of trade unions shape micro level praxis, thus presenting opportunities to research what external aggregate practitioners do within an organisation's immediate environment while engaging in matters concerning SA. A possible research question applicable to this domain could be "How does the directive to health workers from the Secretary General of the national health union, to cease engagement in strategic planning workshops, shape SA?"

Domain K contains three studies that help explain the relationship between external aggregate actors and the meso level of praxis. One such study is that carried out by Wijnhoven, Spil et al. (2006) who found that creating an IS policy (that includes an objective to assist SA) when merging three hospitals into one organisation, depends highly on the political process including government pressure and hospital user associations. A possible research question applicable to this domain could be "What role do government appointed advisors play in applying political pressure to help achieve SA within public hospitals?"

Domain L contains no studies, reflecting we didn't find any studies within the SA literature that examine the relationship between external aggregate actors and the macro level of praxis. Studies within this domain would provide empirical evidence of the association between external aggregate actors such as consultants and the macro level of praxis, thus presenting opportunities to carry out research on what external aggregate practitioners do at an institutional, market or industry level that impacts SA. A possible research question applicable to this domain could be "What role do external consultants play in advising government on an e-Government strategy designed to achieve a high level of SA across all government departments?"

8.2 Praxis within the Literature

While some authors take a chronological or author-centric approach towards organising their literature reviews, this can result in a summary rendition of the articles, devoid of a plot, which is exactly what we don't want to do (Bem 1995, Webster and Watson 2002). We therefore developed a classification scheme to help

identify praxis that are concept-centric. These concepts and the praxis identified therein, contribute towards how the written review can be organised. In addition, classifying the various concepts within the SA literature and identifying the praxis therein, contributes to achieving our objectives set out in the initial stage of the review process.

Our classification scheme is based on categorising the research focus of the 173 empirical articles and the 24 non-empirical articles. We were able to include the 24 non-empirical articles because our focus was on praxis and not on the level of praxis.

The approach we took to building the classification scheme is based on the constructivist grounded theory coding method as espoused by Charmaz (2006), an approach that provides a rigorous method for reviewing literature (Wolfswinkel, Furtmueller et al. 2013). This approach involves building from the “bottom up” comprising the three sequential phases of initial coding, focussed coding, and theoretical coding, thus enabling the key concepts to emerge from the literature instead of being deductively derived before analysis of the same literature (Wolfswinkel, Furtmueller et al. 2013). It is precisely this application of grounded theory that enables a concept-centric review of the SA literature. Indeed, the application of grounded theory techniques as opposed to employing all its principles and procedures for the purposes of data analysis (as opposed to theory generation), is the most common approach within IS research to date (Urquhart, Lehmann et al. 2010, Matavire and Brown 2013).

Rather than carry out line-by-line coding, the initial codes were generated from analysis of each article’s abstract, contribution, findings, and conclusions. This analysis is the first abstraction step we undertook and resulted in the identification of some 64 initial codes. The next step involved developing focussed codes from the 64 initial codes. This step was carried out by deciding which initial codes made the most analytical sense from which to categorise our data. This work reduced the 64 initial codes to 19 focussed codes which represent the 19 concepts. Theoretical coding was then carried out on these 19 concepts, which involved specifying relationships between them and resulted in four top level topics. This gave rise to the classification framework displayed in table 1.

Topic	Concept
Factors that drive SA	Strategic planning, organisation performance, dynamic/static nature of SA, environmental factors.
Organisation context	Organisation structure, CIO position in the organisation, top issues for IS executives, multi business unit, process view of SA, post mergers, all levels of the organisation.
Management issues	Enablers and impediments, models/measurement, relationship between IS governance and SA, sourcing and integrating various IS services, business analytics.
Human aspects	Shared understanding, social dimension, education.

Table 1 Classification of topics and concepts from the SA literature.

We found a number of articles that contained more than one concept. Where this occurred, the most prominent concept that reflected each article’s specific research focus was chosen. This enabled a more structured and streamlined classification of the major topics and concepts within the SA literature, leading to the identification of praxis.

8.3 Practices within the Literature

From our reading of the SA literature, we didn’t find a dominant view of practices. We therefore followed the approach taken by Whittington (2006a) and Jarzabkowski and Spee (2009) by identifying practices as bundles of shared routines. We identified four in total including (i) SA formation practices; (ii) management practices; (iii) organisation practices; and (iv) group interaction practices.

We then grouped these four practices within each of the four topics (factors that drive SA, organisation context, management issues and human aspects) identified in table 1

8.3.1 Practices Found Within the Topic of “Factors That Drive SA”

The topic “factors that drive SA” is concerned with aspects that influence organisations to consider SA. Within the concept of strategic planning, whether the focus is on business plans, IS plans, or both, the practice undertaken is that of “SA formation” (Pyburn 1983, Yetton, Johnston et al. 1994, Kearns and Sabherwal 2007).

Organisation performance concerns “organisation practices” and how they are employed to bring about SA so as to increase organisation performance (Sabherwal and Kirs 1994, King, Cragg et al. 2000, Tallon and Pinsonneault 2011). Studies that research the dynamic/static nature of SA show that SA is indeed a dynamic state and the nature of this dynamism differs depending on the organisation and the situation (Burn 1996, Sabherwal, Hirschheim et al. 2001, Baker, Jones et al. 2011). The common thread within these studies is that there must be a willingness among IS and business managers to work together, hence the focus is on “management practices”. Environmental factors are concerned with how an organisation’s top management deals with opportunities presented by the external environment so as to enhance SA. Studies into these factors and their impact on SA are in the main concerned with “SA formation practices” (Choe 2003, Denford and Chan 2009).

8.3.2 Practices Found Within the Topic of “Organisation Context”

The topic “organisation context” is concerned with steps taken by organisations to avail of opportunities presented by the ever changing environment in which they operate. Within the concept of organisation structure, the focus is on structuring the IS organisation in a way that it can best serve the overall organisation (Brown and Magill 1994, Raymond, Paré et al. 1995, Chan 2002), hence the focus is on “organisation practices”. The CIO position in the organisation concerns the practice of “SA formation” insofar that while the position of the CIO in the organisation is of concern, of far greater concern is whether or not the CIO takes an active part in top management debates concerning organisation strategy (Rockart, Earl et al. 1996, Chowa 2010). The concept of top issues for IS executives holds a prominent position within the literature (Watson, Kelly et al. 1997, Luftman, Kempaiah et al. 2006, Luftman and Derksen 2012b) and is primarily focussed on what occupies the minds of IS executives in relation to IS and its contribution to the organisation, hence its focus on the practice of “SA formation”. The concept of multi business unit is focussed on organisations that contain multiple business units and cannot consider each unit in isolation if they want to achieve organisation wide SA (Ives, Jarvenpaa et al. 1993, Grant 2003, Fonstad and Subrami 2009). The practice associated with this concept is “managerial” albeit that the consequences are felt at an organisational level. The process view of SA is a concept concerned with considering SA at the process level

within the firm, hence the work undertaken is governed by “management practices” (Tallon 2008, Heath and Singh 2011). Post mergers is a concept concerned with evaluating the degree of SA following the merger of two or more organisations (Wijnhoven, Spil et al. 2006, Mehta and Hirschheim 2007). With little research undertaken in this area to date, the practices we found to be associated with the concept are of a “group interaction” nature. All levels of the organisation is concerned with attaining SA at the operational, tactical and strategic level of the organisation (Levy, Powell et al. 2001, Tarafdar and Qrunfleh 2009, Schlosser and Wagner 2011) and is therefore determined by “organisation practices”.

8.3.3 Practices Found Within the Topic of “Management Issues”

The topic “management issues” is concerned with those aspects of SA directly controlled by the actions carried out by the management of the organisation. Enablers and impediments is a concept that appears in the SA literature on a fairly frequent basis (Broadbent and Weill 1993, Hirschheim and Sabherwal 2001, Silvius 2007) and they can either assist or hinder the attainment of SA within organisations. The concept is primarily concerned with activities carried out by management and is therefore a “management practice”. The concept of models/measurement features significantly in the SA literature from 1984 to date (Venkatraman and Camillus 1984, Miller 1993, Basir 2006, Leonard and Seddon 2012) and concentrates on three main themes i.e. model development, adaption of models, and application of models, for the purpose of measuring SA. All themes are concerned with measuring SA and therefore fall within “management practices”. Relationship between IS governance and SA is a relationship regulated by the actions of an organisation’s management (Shpilberg, Berez et al. 2007, DeHaes and Van Grembergen 2009), hence the practices carried out are clearly “management practices”. The concept of sourcing and integrating various IS services to help achieve SA, be it done in-house, by contractors, or cloud computing providers, is a task overseen by management (Dutta 1996, Ndede-Amadi 2004, Mikko 2011) and comes under “management practices”. The concept of business analytics entered the SA literature via the study undertaken by Shanks, Bekmamedova et al. (2012), it being the only such study we found. This

concept focusses on the structuring and storage of large quantities of high quality data for the purpose of supporting management and comes under “management practices”.

8.3.4 Practices Found Within the Topic of “Human Aspects”

The topic “human aspects” is concerned with the social, as distinct from the intellectual, characteristic of SA. Within the concept of shared understanding are matters pertaining to the shared knowledge, skillsets, and objectives, of all those involved in determining how to achieve SA (Tan 1999, Preston and Karahanna 2005, Bloch, Brown et al. 2012) and the practices undertaken are applicable to “group interaction”. Social dimension is a concept that first appeared in the SA literature in 1996 and is principally related to the social relationships (both formal and informal) between those involved in seeking SA (Reich and Benbasat 1996, Campbell, Kay et al. 2005, Gast and Zanini 2012). The concept falls within the practices of “group interaction”. Finally, while it appears as a minor concept within some articles (Rockart, Earl et al. 1996, Khandelwal 2001, Balhareth, Liu et al. 2012), the concept of education is dealt with as a major concept by Preston and Karahanna (2009b) and even at that, the authors deal only with how the CIO can act as a catalyst for increasing knowledge of SA among senior management. Such education, whether it’s at a senior, middle, or junior level, incorporates “group interaction”.

From our analysis of the SA Literature we identified, practitioner and the level of practice (domains B, D, E, F and K from figure 1), praxis (concepts in table 1) and the four principal practices undertaken within the SA field (SA formation, management, organisation and group interaction). This identification enabled a review of the SA literature through a Strategy-as-Practice lens based on the three Ps of practitioners, practices, and praxis.

9. Writing the Review

Having successfully executed the first five stages of the literature review process, we are now ready to address the final stage which involves writing the core literature review itself. The detailed analysis of the literature from a practice-based perspective

offers a range of unique perspectives that have not to-date been clearly articulated within the SA literature. While it is clearly beyond the scope of this paper to present the written review itself, it is suffice to say that the emerging written review is highly novel and as part of a doctoral dissertation makes a distinct and original contribution (McDonagh, 2014).

In making a claim towards novelty in the doctoral dissertation, it is essential that doctoral students assiduously surface and make explicit all aspects of the dissertation that have a novel dimension (McDonagh, 2014). With regards to the approach outlined in this paper, the novelty associated with the written review is captured by the manner in which the formal review process effectively integrates the typology developed by Jarzabkowski and Spee (2009), the coding system for the constructivist grounded theory method espoused by Charmaz (2006), and the method taken by Whittington (2006a) and Jarzabkowski and Spee (2009) towards practices as a bundle of interrelated routines.

10. Conclusion

In this paper, we have presented an approach to carry out a systematic qualitative review of the SA literature, via a six-stage process. The approach is underpinned by a framework constructed from a Strategy-as-Practice lens typology, a classification scheme developed from the coding method of the constructivist approach to grounded theory, and the identification of practices as bundles of shared routines. Taken together, these three elements of our approach provide the basis to review the SA literature through a Strategy-as-Practice lens with an emphasis on all three Ps (practitioners, practices and praxis). This novel approach towards reviewing the SA literature permits an up-to-date understanding of the subject, allows for the identification of gaps within current research and enables the establishment of a future SA research agenda, through a Strategy-as-Practice lens.

Taking the view that SA concerns the integration of business and IS strategies, then research into SA affords the potential to contribute to the wider academic IS strategy

stream of research that Teubner (2013:249) found to have “*considerably waned*” since the late 1990s.

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