

Corporate portfolio management in the public sector

CPM in the
public sector

Saša Baškarada and Brian Hanlon

Defence Science and Technology Group Melbourne, Fishermans Bend, Australia

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Abstract

Purpose – Although corporate portfolio management (CPM) has been a popular tool for strategic management of multi-business portfolios in the private sector since the late 1960s, it has received limited attention in the public sector. Accordingly, empirical research on the use of CPM in government organizations is virtually non-existent. The purpose of this paper is to partially fill that gap in the literature by highlighting and discussing some of the key points that public sector organizations may need to consider when adopting CPM.

Design/methodology/approach – Rather than deductively proposing and testing narrowly specified hypotheses, this study aims to answer a broad research question, namely: What are the key points that public sector organizations may need to consider when adopting CPM? Hence, the study adopts the qualitative interpretive research paradigm. The findings are based on empirical research conducted in a large Australian publicly funded research organization. Potential application of CPM was iteratively and incrementally explored with a reference group comprising 15 middle management representatives and several members of the senior leadership group over the course of one year.

Findings – Assessment criteria traditionally used in CPM (e.g. growth potential and market share) are generally not applicable in public sector organizations. This paper suggests that government organizations should instead consider past performance and future potential of individual business units, which may be operationalized via capability (a function of human capital and associated resources/infrastructure) and delivery (a function of the demand for, and the impact of, relevant business units). The paper also highlights the importance of organization-wide consultation, evidence-based decision making, and contestability.

Originality/value – From a practical perspective, the paper may assist public sector organizations with adapting and applying CPM. From a theoretical perspective, the paper highlights an important and relatively neglected research problem, and suggests several avenues for future research.

Keywords Strategic management, Public sector, Corporate portfolio management, Product-portfolio matrix, Growth share matrix

Paper type Research paper

Received 11 April 2017
Revised 4 October 2017
2 January 2018
Accepted 14 March 2018

Introduction

A number of global megatrends, including natural resource depletion, environmental destruction, climate change, shifting global power structures, changing demographics, and technological advances, are leading to a world that is more complex, dynamic, and unpredictable (Hajkowicz *et al.*, 2012). Studies have also shown that maintaining competitive advantage is becoming increasingly difficult in a range of industries (Wiggins and Ruefli, 2005; Comin and Philippon, 2006). In such a hypercompetitive environment, companies are forced to innovate at increasingly shorter time intervals, and although most obvious in the technology industry (Porter, 1996), hypercompetition is also spreading to other sectors due to the rapid advances in digital technologies (Wiggins and Ruefli, 2005). Thus, unsurprisingly, many executives from private, public, and not-for-profit sectors agree that the importance of strategic agility has been growing over time (Macias-Lizaso and Thiel, 2006). Additionally, following the Great Recession (starting with the global financial crisis in 2007), many governments have adopted austerity measures and reduced public sector expenditures (Hansen, 2015; Callan *et al.*, 2011). Due to these drivers, many government organizations have been forced to rationalize their portfolios, which have also fallen under greater scrutiny (Karanikolos *et al.*, 2013).

While highlighting their importance, the literature suggests that both public sector strategic management and corporate portfolio management (CPM) are underresearched topics (Poister *et al.*, 2010; Nippa *et al.*, 2011; Baskarada and Hanlon, 2017). The research on CPM in the public sector is virtually non-existent. This gap in the literature is somewhat surprising



Journal of Management
Development
Vol. 37 No. 4, 2018
pp. 333-340
© Emerald Publishing Limited
0262-1711
DOI 10.1108/JMD-04-2017-0107

since CPM is widely used in industry (Pidun *et al.*, 2011). Moreover, diversified corporations that include multiple businesses (or product-market segments) are more prevalent than ever (Nippa *et al.*, 2011; Hedley, 1977). Similarly, the adoption of strategic management in the public sector has grown significantly over the last decades (Bryson *et al.*, 2010). Accordingly, there have been calls for more in-depth practitioner-focused empirical studies (Kuipers *et al.*, 2014). In view of this gap in the literature, our paper aims to answer the following broad research question:

RQ1. What are the key points that public sector organizations may need to consider when adopting CMP?

Since CPM was originally developed for product-oriented firms with tangible inputs and outputs, some of its assumptions (e.g. the experience curve) may not be directly applicable to service-oriented organizations with intangible inputs and outputs (Thomas, 1978). For instance, describing and evaluating the quality and impact of intangible services is much more difficult and abstract than is the case with tangible products (Wehrich, 1982). This is especially the case with people-based services, such as consulting. Given that most government organizations are service- rather than product-oriented, traditional CPM may not be directly applicable to the public sector (Bryson, 1988; Nutt and Backoff, 1993). Furthermore, instead of being primarily focused on financial gains and/or market share, public sector organizations are generally more interested in improving resource allocation and evaluating internal strengths and weaknesses with respect to certain externally imposed mandates (East, 1972).

Literature review

Originating in the finance theory, CPM was first adapted and applied to the real economy by the Boston Consulting Group (BCG) in the late 1960s (Nippa *et al.*, 2011). Their product-portfolio matrix identified market share and the potential for growth as the main factors impacting strategies of individual businesses comprising diversified companies (Hedley, 1977, 1976). BCG argued that increasing market share is easier in growing markets, and that the experience curve effect enables businesses with a higher market share to develop lower-cost products, leading to higher profits. Because they have different characteristics, individual businesses comprising a diversified corporation could adopt separate strategies (Hedley, 1977). For instance, BCG recommended using the profits generated by businesses with a high market share but a low potential for growth to fund select businesses with a low market share and a high growth potential. Businesses with both a low market share and a low potential for growth were to be liquidated.

While some scholars have criticized CPM matrices and similar approaches for being overly simplistic (Christensen *et al.*, 1982; Day, 1977; Seeger, 1984), others have argued that many such criticisms are misguided since CPM-inspired approaches are aimed at facilitating strategic thinking and decision making rather than at providing specific answers (Morrison and Wensley, 1991). For example, recent studies have shown that organizations are using CPM for identifying the need for action, identifying growth and divestiture candidates, setting strategic targets, and creating transparency (Pidun *et al.*, 2011). Nevertheless, the fact that many CPM approaches, including the BCG product-portfolio matrix, pay insufficient attention to external threats and opportunities as well as internal weaknesses and strengths may be considered problematic (Wehrich, 1982).

As noted in the introduction, research on CPM in the public sector is virtually non-existent. While there is a significant body of literature on strategic planning in the public sector (Bryson, 2010), few researchers offer specific guidance on the underpinning processes. It is generally understood that any such processes need to be tailored to the unique context of each particular organization (Bryson *et al.*, 2010). Nevertheless, several

authors have identified a number of key elements comprising strategic planning processes in public organizations, including preparing for strategic planning; affirming organizational mission, vision, and values; performing a strengths, weaknesses, opportunities, and threats (SWOT) analysis, stakeholder management; identification and analysis of strategic issues and objectives/goals; development of plans/strategies for reaching organizational objectives/goals; evaluation of such plans/strategies; development and implementation of action plans; and ongoing evaluation and monitoring (Eadie, 1983; Denhardt, 1985; Kaufman and Jacobs, 1987; Pindur, 1992; Bryson, 1988; Bryson *et al.*, 2010; Baškarada *et al.*, 2016).

Balanced scorecard (BSC), originally developed by Kaplan and Norton (1995) for use in the private sector, has been adapted by Niven (2011) for use in public and non-profit organizations. The BSC generally identifies four key strategic themes (customer, financial, internal process, and learning and growth) that organization should consider. However, Bryson *et al.* (2010) argue that, given the predefined strategic themes, BSC may be more appropriate for strategy implementation than for strategy development.

Adapting and applying CPM to public sector organizations is challenging for a number of reasons. One obvious difference between private and public organizations is that the success of private firms is mainly evaluated in monetary terms, whereas public organizations are focused on meeting externally imposed formal and informal mandates (Bryson, 1988; Nutt and Backoff, 1993). As a result, strategic planning in the public sector is less about exploring new business opportunities and more about understanding and meeting stakeholder expectations (Ramamurti, 1986). Furthermore, since public organizations are generally not evaluated in monetary terms, measuring their effectiveness is much more difficult (East, 1972; Kuipers *et al.*, 2014). Consequently, many public organizations primarily focus on evaluating internal strengths and weaknesses.

Another key difference between private and public organizations is that strategies in public organizations are generally developed in consultation with a broad range of external stakeholders, while private firms tend to rely more on internal top-down decision making (Ramamurti, 1986; Perrott, 1996; Rondinelli, 1976; van der Voet *et al.*, 2015). Although an important factor in both cases, top management commitment (and involvement in inter-organizational negotiation) is arguably even more critical in the public sector (Ramamurti, 1986; Kellis and Ran, 2015), since the inter-organizational nature of strategic management in the public sector leads to more complicated political dynamics (Rondinelli, 1976). Thus, strategic management in the public sector tend to be less about rational optimization, and more about negotiation and collaboration (Rondinelli, 1976; Nutt and Backoff, 1993; Poister, 2010; Omari and Paull, 2015).

Methodology

This study adopts the qualitative interpretive research paradigm (Baškarada, 2014). In contrast to quantitative research, which is mainly concerned with the testing of hypotheses and statistical generalizations (Jackson, 2008), qualitative research does not usually employ statistical procedures or other means of quantification (Strauss and Corbin, 1994). Viewed as an ongoing process of interpretation and analysis, qualitative research is more about understanding the nature of the research problem rather than on the quantity of observed characteristics (Strauss and Corbin, 1994). Given that qualitative researchers generally assume that social reality is a human creation, they interpret and contextualize meanings from people's beliefs and practices (Denzin and Lincoln, 2011). Accordingly, interpretive research seeks to explain phenomena in terms of the meanings they hold for people (Orlikowski and Baroudi, 1991) by starting from the proposition that our knowledge of the social reality is a construction by human actors (Walsham, 1993).

For this study, qualitative data were collected in an Australian publicly funded research organization over the course of one year. Potential application of CPM was iteratively and

incrementally explored with a reference group comprising 15 middle management representatives and several members of the senior leadership group. A total of 12 structured workshops were held, and additional feedback periodically received on an ad hoc basis. Each iteration was used to test and explore potential CPM assessment criteria and the overall process with the reference group, resulting in verbal and written feedback. The authors then jointly analyzed the feedback received and reworked the CPM approach for the next iteration. The constant comparative method was used to identify key criteria and group them into aggregate themes (Strauss and Corbin, 1994). This approach is in line with Glaser's (1965) recommendation for simultaneous coding and analysis.

Results and discussion

Assessment criteria traditionally used in CPM (e.g. growth potential and market share) were found to be not relevant to the public sector, since most public organizations generally have different objectives. Over the course of several iterations, the reference group reached relative consensus that the case study organization should instead focus on past performance and future potential of individual business units (Baškarada and Watson, 2017; Baškarada *et al.*, 2017). They reasoned that past performance may indicate future potential, and that future potential of individual business units is the most important factor that needs to be considered. Both past performance and future potential may be evaluated in terms of capability (a function of human capital and associated resources/infrastructure) and *delivery* (a function of the demand for, and the relative impact of, relevant business units).

While business units with poor past performance and weak future potential may seem as the most obvious candidates for liquidation, there may be several special cases where the exact opposite action may be required. For instance, if a business unit is relatively new, there may be insufficient data to demonstrate past performance. If this business unit also lacks the required human capital, resources, and infrastructure, it may in fact be a good candidate for additional funding rather than of a candidate for liquidation. Mature business units with an excellent track record are considered credible. If such business units also have strong future potential, they may be sustained at existing levels, or expanded if there is a growing demand for their services. Business units with poor past performance and strong future potential, or those with strong past performance and weak future potential, are more problematic. Since the former lack a credible track record, any future plans (especially those relating to capability enhancements) should be carefully examined and appropriately risk managed. If relevant plans are considered achievable, such business units should be appropriately funded and supported by the parent organization. If, on the other hand, future plans are believed not feasible, such business units may be considered for liquidation. Mature business units with a credible track record, but weak future potential are even more problematic. They may be considered for liquidation if the weak future potential is due to unexpected changes in customer impact and/or demand. However, if the future potential is hindered by insufficient capability (quality/quantity of human capital, resources, and infrastructure), then such business units may be the best candidates for additional funding. These considerations illustrate the complexity of the portfolio management in the public sector and the importance of documenting strategic narratives for each business unit.

The reference group also highlighted the importance of defining and following a structured multi-step process for collating relevant evidence, ensuring appropriate stakeholder consultation, promoting contestability of assessments, reviewing impacts of any strategic decisions, and ultimately achieving key stakeholder consensus on individual business unit strategies. The process should initially gather as much relevant information as possible. This may include information on staffing and resourcing, services, and stakeholders supported by each business unit, stakeholder strategies, client and staff surveys, benchmarking, and any formal reviews. Next, each member of the senior leadership group

responsible for organizational strategic planning should complete a descriptive profile (Wehrich, 1982) for each business unit under their control. Such descriptive profiles should describe the key attributes of each business unit, consider any outsourcing opportunities, and estimate the ease/difficulty of reestablishing the business unit if it were reduced in size or fully liquidated. This final point is particularly important as some public sector organizations and business units may not be profitable and thus may not be supported by the private sector. The descriptive profile should also include an assessment of the past performance and the future potential of each business unit. Each member of the senior leadership group should then identify candidates for growth, reduction, or full liquidation. Given that each member of the senior leadership group may undertake their assessments differently, there is a need for rating normalization. This may happen at a senior leadership group meeting, where each member presents and defends their assessments and strategic narratives. Senior leadership group members could then revise their initial assessments based on the feedback received, and reconvene at a later stage for preliminary strategic recommendations. The purpose of the second meeting is to form an organization-wide view, and make preliminary determinations on individual business unit strategic narratives. Following the second meeting, the organization should undertake a detailed analysis of the overall impact on the key stakeholders. Critical stakeholders should then be engaged in order to seek their feedback on the proposed change. Consistency with broader government direction should also be ensured at this stage. Following this consultation, the senior leadership group should reconvene in order to consider the implications of the preliminary decisions and make final rebalancing recommendations. The objective of this meeting is to make sure that key issues have not been passed over, and that the impact of any changes (especially funding and staffing reductions) has been adequately assessed. Finally, relevant recommendations should be appropriately documented and communicated all key stakeholders.

Conclusion

Although CPM has been a popular tool for strategic management of multi-business portfolios in the private sector for more than 50 years, it has received limited attention in the public sector. Empirical research on the use of CPM in government organizations is virtually non-existent. This paper partially filled that gap in the literature by highlighting and discussing some of the key points that public sector organizations may need to consider when adopting CPM. The assessment criteria traditionally used in CPM (e.g. growth potential and market share) were found not applicable for use in the public sector. This paper suggested that government organizations should instead consider past performance and future potential of individual business units, which may be operationalized via capability (a function of human capital and associated resources/infrastructure) and delivery (a function of the demand for, and the impact of, relevant business units). The paper also highlighted the importance of organization-wide consultation, evidence-based decision making, and contestability.

From a practical perspective, the paper may assist public sector organizations with adapting and applying CPM. Specifically, the approach outlined in this paper may assist several of the elements identified as generally comprising strategic management processes in the public sector. By adapting CPM to the specific organizational setting, organizations may better prepare for strategic planning in general. Assessing past performance and future potential may facilitate a SWOT analysis as well as affirm organizational mission and vision. The iterative process outlined may aid with stakeholder management, and intimate stakeholder involvement may facilitate identification and analysis of strategic issues and objectives/goals. The evaluation of future potential may aid the development of plans/strategies for reaching organizational objectives/goals, and contestability provided by senior leaders may facilitate evaluation of such plans/strategies. From a theoretical

perspective, the paper highlights an important and relatively neglected research problem, and suggests several avenues for future research.

Although the approach described in this paper may be useful for facilitating strategic thinking and decision making, its effective execution faces a number of challenges. The first challenge has to do with impact, arguably, the most important, yet the most difficult to evaluate criterion. It is known from results-based management that while measuring impact in public service organizations is difficult, attributing specific actions to outcomes is even more challenging (Mayne, 2007). That is because there are frequently several factors that could have contributed to the outcome, and isolating any particular factor may not be possible in a non-experimental setting. As a result, organizations may at least partially choose to focus on immediate and inter-mediate outcomes, such as number of customers served, and customer feedback.

The other obvious challenge has to do with any assessments of future potential. First, estimating the likelihood of future demand and/or impact may be difficult. Second, evaluating the feasibility of any plans aimed at improving the quality and/or capacity of human resources and/or infrastructure may be challenging. The longer the strategic outlook is, the more difficult both of these points become.

References

- Baškarada, S. (2014), "Qualitative case study guidelines", *The Qualitative Report*, Vol. 19 No. 40, pp. 1-25.
- Baškarada, S. and Hanlon, B. (2017), "Strategic management of multi-business portfolios in the public sector: a case study in defence science and technology", *Journal of Advances in Management Research*, Vol. 14 No. 4, pp. 466-480.
- Baškarada, S. and Watson, J. (2017), "Managing the exploitation-exploration tradeoff: how leaders balance incremental and discontinuous innovation", *Development and Learning in Organizations: An International Journal*, Vol. 31 No. 4, pp. 13-16.
- Baškarada, S., Shrimpton, D. and Ng, S. (2016), "Learning through foresight", *Foresight*, Vol. 18 No. 4, pp. 414-433.
- Baškarada, S., Watson, J. and Cromarty, J. (2017), "Balancing transactional and transformational leadership", *International Journal of Organizational Analysis*, Vol. 25 No. 3, pp. 506-515.
- Bryson, J.M. (1988), "A strategic planning process for public and non-profit organizations", *Long Range Planning*, Vol. 21 No. 1, pp. 73-81.
- Bryson, J.M. (2010), "The future of public and nonprofit strategic planning in the United States", *Public Administration Review*, Vol. 70 No. S1, pp. s255-s267.
- Bryson, J.M., Berry, F.S. and Yang, K. (2010), "The state of public strategic management research: a selective literature review and set of future directions", *The American Review of Public Administration*, Vol. 40 No. 5, pp. 495-521.
- Callan, T., Leventi, C., Levy, H., Matsaganis, M., Paulus, A. and Sutherland, H. (2011), "The distributional effects of austerity measures: a comparison of six EU countries", EUROMOD Working Paper, EUROMOD, available at: www.econstor.eu/handle/10419/64872 (accessed April 2018).
- Christensen, H.K., Cooper, A.C. and DeKluyver, C.A. (1982), "The dog business: a re-examination", *Business Horizons*, Vol. 25 No. 6, pp. 12-18.
- Comin, D.A. and Philippon, T. (2006), "The rise in firm-level volatility: causes and consequences", *NBER Macroeconomics Annual 2005*, Vol. 20, MIT Press, pp. 167-228.
- Day, G.S. (1977), "Diagnosing the product portfolio", *The Journal of Marketing*, Vol. 41 No. 2, pp. 29-38.
- Denhardt, R.B. (1985), "Strategic planning in state and local government", *State & Local Government Review*, Vol. 17 No. 1, pp. 174-179.
- Denzin, N.K. and Lincoln, Y.S. (2011), *The Sage Handbook of Qualitative Research*, Sage, Thousand Oaks, CA.

- Eadie, D.C. (1983), "Putting a powerful tool to practical use: the application of strategic planning in the public sector", *Public Administration Review*, Vol. 43 No. 5, pp. 447-452.
- East, R. (1972), "Comparison of strategic planning in large corporations and government", *Long Range Planning*, Vol. 5 No. 2, pp. 2-8.
- Glaser, B.G. (1965), "The constant comparative method of qualitative analysis", *Social Problems*, Vol. 12 No. 4, pp. 436-445.
- Hajkowicz, S., Cook, H. and Littleboy, A. (2012), *Our Future World: Global Megatrends that will Change the Way We Live: The 2012 Revision*, CSIRO, available at: www.csiro.au/en/Do-business/Futures/Reports/Our-Future-World (accessed April 2018).
- Hansen, P.H. (2015), "Hall of mirrors: the great depression, the great recession, and the uses – and misuses – of history", *Business History Review*, Vol. 89 No. 3, pp. 557-569.
- Hedley, B. (1976), "A fundamental approach to strategy development", *Long Range Planning*, Vol. 9 No. 6, pp. 2-11.
- Hedley, B. (1977), "Strategy and the 'business portfolio'", *Long Range Planning*, Vol. 10 No. 1, pp. 9-15.
- Jackson, S.L. (2008), *Research Methods and Statistics: A Critical Thinking Approach*, Wadsworth Cengage Learning, Belmont, CA.
- Kaplan, R.S. and Norton, D.P. (1995), "Putting the balanced scorecard to work", *Performance Measurement, Management, and Appraisal Sourcebook*, Vol. 66 No. 1, p. 17511.
- Karanikolos, M., Mladovsky, P., Cylus, J., Thomson, S., Basu, S., Stuckler, D., Mackenbach, J.P. and McKee, M. (2013), "Financial crisis, austerity, and health in Europe", *The Lancet*, Vol. 381 No. 9874, pp. 1323-1331.
- Kaufman, J.L. and Jacobs, H.M. (1987), "A public planning perspective on strategic planning", *Journal of the American Planning Association*, Vol. 53 No. 1, pp. 23-33.
- Kellis, D.S. and Ran, B. (2015), "Effective leadership in managing NPM-based change in the public sector", *Journal of Organizational Change Management*, Vol. 28 No. 4, pp. 614-626.
- Kuipers, B.S., Higgs, M., Kickert, W., Tummars, L., Grandia, J. and Van der Voet, J. (2014), "The management of change in public organizations: a literature review", *Public Administration*, Vol. 92 No. 1, pp. 1-20.
- Macias-Lizaso, G. and Thiel, K. (2006), "Building a nimble organization: a McKinsey global survey", The McKinsey Quarterly-Online Survey, available at: <http://leadway.org/PDF/Building%20A%20Nimble%20Organization.pdf> (accessed April 2018).
- Mayne, J. (2007), "Challenges and lessons in implementing results-based management", *Evaluation*, Vol. 13 No. 1, pp. 87-109.
- Morrison, A. and Wensley, R. (1991), "Boxing up or boxed in?: a short history of the Boston Consulting Group share/growth matrix", *Journal of Marketing Management*, Vol. 7 No. 2, pp. 105-129.
- Nippa, M., Pidun, U. and Rubner, H. (2011), "Corporate portfolio management: appraising four decades of academic research", *The Academy of Management Perspectives*, Vol. 25 No. 4, pp. 50-66.
- Niven, P.R. (2011), *Balanced Scorecard: Step-by-step for Government and Nonprofit Agencies*, John Wiley & Sons, Hoboken, NJ.
- Nutt, P.C. and Backoff, R.W. (1993), "Transforming public organizations with strategic management and strategic leadership", *Journal of Management*, Vol. 19 No. 2, pp. 299-347.
- Omari, M. and Paull, M. (2015), "Public sector work intensification and negative behaviors", *Journal of Organizational Change Management*, Vol. 28 No. 4, pp. 603-613.
- Orlikowski, W.J. and Baroudi, J.J. (1991), "Studying information technology in organizations: research approaches and assumptions", *Information Systems Research*, Vol. 2 No. 1, pp. 1-28.
- Perrott, B.E. (1996), "Managing strategic issues in the public service", *Long Range Planning*, Vol. 29 No. 3, pp. 337-345.
- Pidun, U., Rubner, H., Krühler, M., Untiedt, R. and Nippa, M. (2011), "Corporate portfolio management: theory and practice", *Journal of Applied Corporate Finance*, Vol. 23 No. 1, pp. 63-76.

- Pindur, W. (1992), "Public sector strategic planning for the year 2000", *Strategic Change*, Vol. 1 No. 2, pp. 101-117.
- Poister, T.H. (2010), "The future of strategic planning in the public sector: linking strategic management and performance", *Public Administration Review*, Vol. 70 No. S1, pp. s246-s254.
- Poister, T.H., Pitts, D.W. and Edwards, L.H. (2010), "Strategic management research in the public sector: a review, synthesis, and future directions", *The American Review of Public Administration*, Vol. 40 No. 5, pp. 522-545.
- Porter, M.E. (1996), "What is strategy?", *Harvard Business Review*, Vol. 74 No. 1, pp. 61-78.
- Ramamurti, R. (1986), "Strategic planning in government-dependent businesses", *Long Range Planning*, Vol. 19 No. 3, pp. 62-71.
- Rondinelli, D.A. (1976), "Public planning and political strategy", *Long Range Planning*, Vol. 9 No. 2, pp. 75-82.
- Seeger, J.A. (1984), "Research note and communication: reversing the images of BCG's growth/share matrix", *Strategic Management Journal*, Vol. 5 No. 1, pp. 93-97.
- Strauss, A. and Corbin, J. (1994), "Grounded theory methodology", in Denzin, N.K. and Lincoln, Y.S. (Eds), *Handbook of Qualitative Research*, Sage Publications, Thousand Oaks, CA, pp. 273-286.
- Thomas, D.R. (1978), "Strategy is different in service businesses", *Harvard Business Review*, Vol. 56 No. 4, pp. 158-165.
- van der Voet, J., Kuipers, B. and Groeneveld, S. (2015), "Held back and pushed forward: leading change in a complex public sector environment", *Journal of Organizational Change Management*, Vol. 28 No. 2, pp. 290-300.
- Walsham, G. (1993), *Interpreting Information Systems in Organisations*, John Wiley & Sons, Chichester.
- Wehrich, H. (1982), "The TOWS matrix – a tool for situational analysis", *Long Range Planning*, Vol. 15 No. 2, pp. 54-66.
- Wiggins, R.R. and Ruefli, T.W. (2005), "Schumpeter's ghost: is hypercompetition making the best of times shorter?", *Strategic Management Journal*, Vol. 26 No. 10, pp. 887-911.

Corresponding author

Saša Baškarada can be contacted at: sasa.baskarada@defence.gov.au

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