SUSTAINABILITY THROUGH THE LENS OF DYNAMIC CAPABILITY: A HISTOGRAPHIC ANALYSIS

Rohit Bhardwaj, Shri Mata Vaishno Devi University, Katra
Sunali Bindra, Shri Mata Vaishno Devi University, Katra
Saurabh Srivastava, Shri Mata Vaishno Devi University, Katra

ABSTRACT

From an evolutionary standpoint, businesses have been learning how to deal with sustainability challenges and building skills for the sake of sustainability. Responding to the changing environment is the core of strategic management in today's world. Firms can be prepared to respond to changing consumer demands, targeting new markets and manage its suppliers and partners accordingly by combining a strategy for sustainable innovations with dynamic capabilities. The ability of a company to take advantage of a changing environment and maintain a competitive edge is essential to success. Thus, the goal of this article is to organize the existing knowledge on dynamic capacities for long-term sustainability. This study examines the literature on sustainability in a dynamic setting. The trends in sustainable performance and dynamic capabilities are examined using histographic analysis in this article. The findings contain a number of publications, highly-quoted papers and keywords utilized in literature research, published throughout 1993 and 2020. The findings highlight a rising trend in the research domain.

INTRODUCTION

The dynamic and fast evolving markets makes an organisation's survival difficult (Drnevich & Kriauciunas, 2011). Dynamic capabilities, defined as an organization's "capability to intentionally develop, extend, or alter its resource base," give a competitive edge in establishing and maintaining superior performance in the marketplace (Beske, 2012; Teece, 2007; Anand & Ward, 2004). It enables the firm's to address the nuances of the environment (Dess & Beard, 1984). Being dynamically capable enables a firm to improve its routines and processes on a regular basis (Ku & Saeed, 2015). Such alterations and modifications in the routines, resources and processes provides a pathway to sustainable competitive advantage (Danneels, 2004). The ability of the firm to adjust to changes in the internal and external environment can improve its performance (Eisenhardt & Schoonhoven, 1996). To do so, the organization must adjust its skills, resources, and competences (Teece & Pisano, 1994). Dynamic capability is a stock-still concept rooted in the resource-based view which suggests that organizations must have value, originality, rarity, and non-imitable traits in order to maintain a sustained competitive edge (Zhang et al., 2012; Barney, 1991).

It is imperative for a firm to capitalize on an unpredictable milieu and sustain a competitive advantage (Eisenhardt & Martin, 2000). Thus, the goal of this article is to organize the existing knowledge on dynamic capacities for long-term sustainability (Beske, 2012; Thornhill, 2006). This study examines the literature on sustainability in a dynamic setting (Bindra et al., 2019). The trends in sustainable performance and dynamic capabilities are examined using histographic analysis in this article. The findings contain a number of publications, highly-quoted papers and keywords utilized in literature research, published throughout 1993 and 2020. The findings highlight a rising trend in the research domain.

Citation Information: Bhardwaj, R., Bindra, S., & Srivastava, S. (2021). Sustainability through the lens of dynamic capability: a histographic analysis. *Academy of Marketing Studies Journal, 25*(S3), 1-6.

LITERATURE REVIEW

Dynamic Capability

The term dynamic capability is a combination of two key aspects of strategic management (Teece, 2007; Winter, 2003). The term "dynamic" means the environment requiring innovation and the term "*capacities*" emphasizes the adaptability to changing the environment in terms of organizational skills, resources and competences (Protogerou et al., 2011). Dynamic capabilities (Bindra et al., 2020) make it possible for organizations to efficiently deploy their resources and competence to improve firm performance (Rugman & Verbeke, 2002). Firms need both internal and external capacity to be improved on a regular basis in order to be competitive advantageous and to make business responses effective (Savolainen & Haikonen, 2007).

Sustainability

The advancement of information technology, as well as their growing importance in business contexts, has prompted companies to reconsider conventional methods of producing value and surviving in today's hyper-competitive market (Krasnikov & Jayachandran, 2008). Modern commercial settings have changed the fundamentals of company success and survival due to their unpredictability, dynamism, volatility, and impermanence (March, 1991). Sustainability is a long-term value strategy by looking at how a firm functions in its environmental, social and economic settings (Klassen & Rohleder, 1996). Two essential elements for the sustainability of any firm are growth and renewal (Melnyk et al., 2014). Based on the RBV, dynamic sustainability capabilities are a particular type of organizational skills which enable firms to systematically perceive and exploit the possibilities of sustainable growth from the changing environment (Dane & Brummel, 2014). Sustainability may be achieved by continually acquiring knowledge and learning by using benchmarking tools to enhance market capabilities and fill the market gap by means of an adequate evaluation (Naudé, 2012).

Methodology

The literature was analysed using histographic analysis to get a static, methodical, and transparent flow of research as well as a holistic representation of the literature concerning the two key terms i.e. "dynamic capability and sustainability". Histographic analysis is utilized to elucidate and assess the published research in the subject domain. This method can assess academic communication in the form of publications. This represents an exhaustive assessment of the impact of knowledge dissemination and scientific excellence on the subject. It is a statistical method of scientific enquiry into the concerned literature. The findings contain a number of publications, highly-quoted papers and keywords utilized in literature research, published throughout 1993 and 2020.

General Results

The analysis was performed on a total of 209 papers published from 1993-2020 comprising 168 journal articles, 5 book chapters, 28 conference papers, and 8 articles in press.

Citation Information: Bhardwaj, R., Bindra, S., & Srivastava, S. (2021). Sustainability through the lens of dynamic capability: a histographic analysis. *Academy of Marketing Studies Journal, 25*(S3), 1-6.

Research Trend

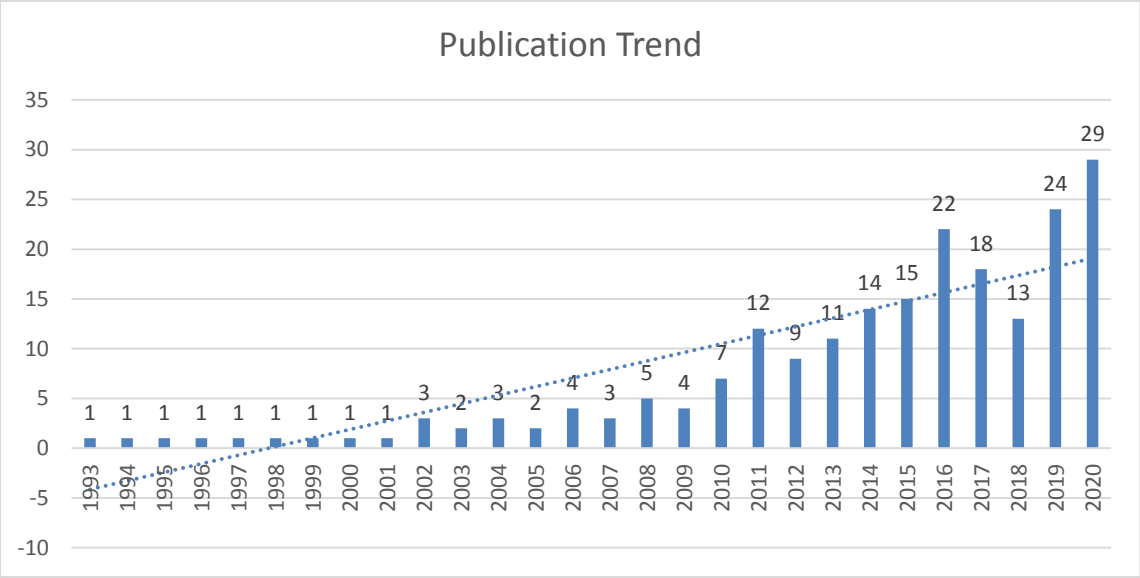

Figure 1
RESEARCH TREND IN THE SUBJECT DOMAIN

The analysis Figure 1 shows that the number of publications in this field increased between 1993 and 2020. The analysis revealed that only one paper per year was published from 1993 – 2001. However, following 2001, a growing trend shows a rise in the academic interest in the subject area. Year 2019 and 2020 indicated 24 and 29 publications respectively. This suggests that the research in this subject domain is gaining momentum in Table 1.

Prolific Documents

Table 1
PROLIFIC DOCUMENTS

Paper	TC	TC/ year
Jansen, J. J., Van Den Bosch, F. A., & Volberda, H. W. (2006). Exploratory innovation, exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators. *Management Science*, *52*(11), 1661-1674.	1005	77.31
Thornhill, S. (2006). Knowledge, innovation and firm performance in high-and low-technology regimes. *Journal of Business Venturing*, *21*(5), 687-703.	287	22.08
Eisenhardt, K. M., & Schoonhoven, C. B. (1996). Resource-based view of strategic alliance formation: Strategic and social effects in entrepreneurial firms. *Organization Science*, *7*(2), 136-150.	220	24.44
Drnevich, P. L., & Kriauciunas, A. P. (2011). Clarifying the conditions and limits of the contributions of ordinary and dynamic capabilities to relative firm performance. *Strategic Management Journal*, *32*(3), 254-279.	169	21.2
Klassen, K. J., & Rohleder, T. R. (1996). Scheduling outpatient appointments in a dynamic environment. *Journal of operations Management*, *14*(2), 83-101.	162	7.04
Anand, G., & Ward, P. T. (2004). Fit, flexibility and performance in manufacturing: coping with dynamic environments. *Production and Operations Management*, *13*(4), 369-385.	158	10.53
Zhang, D., Linderman, K., & Schroeder, R. G. (2012). The moderating role of contextual factors on quality management practices. *Journal of Operations Management*, *30*(1-2), 12-23.	111	15.86
Beske, P. (2012). Dynamic capabilities and sustainable supply chain	100	15.86

Citation Information: Bhardwaj, R., Bindra, S., & Srivastava, S. (2021). Sustainability through the lens of dynamic capability: a histographic analysis. *Academy of Marketing Studies Journal, 25*(S3), 1-6.

management. *International journal of physical distribution & logistics management*. *42*(4), pp. 372-387.		
Melnyk, S. A., Bititci, U., Platts, K., Tobias, J., & Andersen, B. (2014). Is performance measurement and management fit for the future? *Management Accounting Research*, *25*(2), 173-186.	95	19
Dane, E., & Brummel, B. J. (2014). Examining workplace mindfulness and its relations to job performance and turnover intention. *Human Relations*, *67*(1), 105-128.	93	18.6

Table 1 highlights the most eminent and highly cited documents on the topic. Jensen (2006) paper entitled "Exploratory innovation, exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators" received maximum citations (1005) in the subject domain followed by Thornhill (2006); Eisenhardt & Schoonhoven, (1996); Drnevich (2011); Klassen (1996); Anand (2004); Zhang (2012); Beske (2012); Melnyk, (2014) and Dane (2014) with 287, 220, 169, 162, 158, 111, 100, 95 and 93 citations respectively in Figure 2.

Significant Keywords

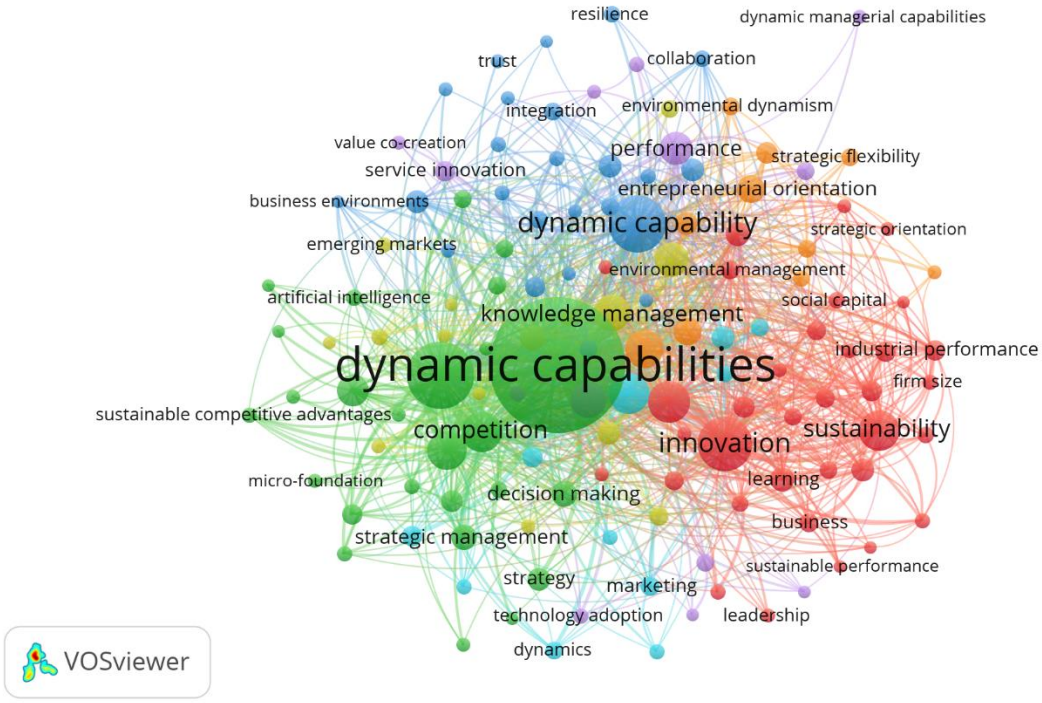

Figure 2
KEYWORD CO OCCURRENCES

Keywords have a vital role in achieving the most important results for a certain area. As a result, the co-occurrence of all of the produced keywords in the sample of articles were examined. For the purpose of network creation and analysis, 813 keywords were extracted from a total of 209 publications obtained from 115 different journals published between 1993 and 2020. Figure 2 represents the most significant keywords co-occurrences some of which are dynamic capability, performance, sustainability, environmental management, value-co-creation, decision making, sustainable competitive advantage, innovation, sustainable performance, technology adoption, dynamism, learning, competition, leadership, business environment and many more. The clusters formed by analysing term co-occurrence reveal similarities among them.

Citation Information: Bhardwaj, R., Bindra, S., & Srivastava, S. (2021). Sustainability through the lens of dynamic capability: a histographic analysis. *Academy of Marketing Studies Journal, 25*(S3), 1-6.

Conclusion

A histographic analysis on the literature concerning the topic "*dynamic capability and sustainability"* extracted from the Scopus database for a period ranging from 1993 to 2020 was undertaken for a comprehensive review to identify the prominent papers sourced in various journals, highly cited documents and the prolific keywords used in the relevant literature. The results revealed that the United Stated of America was leading with 22 articles in the subject domain. A paper entitled "Exploratory innovation, exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators" received maximum citations (1005) (Jensen et al., 2006) in the subject domain and for the purpose of network creation and analysis, 813 keywords were extracted from a total of 209 publications obtained from 115 different journals published between 1993 and 2020. The findings reveal growing patterns in the themes and will aid in future study forecasts.

REFERENCES

Anand, G., & Ward, P.T. (2004). Fit, flexibility and performance in manufacturing: coping with dynamic environments. *Production and Operations Management*, *13*(4), 369-385.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17 (1), pp. 99-120.

Beske, P. (2012). Dynamic capabilities and sustainable supply chain management. *International journal of physical distribution & logistics management*. *42*(4), pp. 372-387.

Bindra, S., Parameswar, N., & Dhir, S. (2019). Strategic management: The evolution of the field. *Strategic Change*, *28*(6), 469-478.

Bindra, S., Srivastava, S., Sharma, D., & Ongsakul, V. (2020). Reviewing knowledge-based dynamic capabilities: perspectives through meta-analysis. *Journal for Global Business Advancement*, *13*(3), 273-295.

Dane, E., & Brummel, B. J. (2014). Examining workplace mindfulness and its relations to job performance and turnover intention. *Human relations*, *67*(1), 105-128.

Danneels, E. (2004). Disruptive technology reconsidered: A critique and research agenda. *Journal of Product Innovation Management*, 21(4) , pp.246-258.

Dess, G.G., & Beard, D.W. (1984). Dimensions of organizational task environments. *Administrative Science Quarterly*, 29, pp. 52-73.

Drnevich, P.L., & Kriauciunas, A.P. (2011). Clarifying the conditions and limits of the contributions of ordinary and dynamic capabilities to relative firm performance. *Strategic Management Journal*, *32*(3), 254-279.

Eisenhardt, K. M., & Schoonhoven, C.B. (1996). Resource-based view of strategic alliance formation: Strategic and social effects in entrepreneurial firms. *organization Science*, *7*(2), 136-150.

Eisenhardt, K., & Martin, J. (2000). Dynamic capabilities: what are they? *Strategic Management Journal*, 21(10-11), pp.1105-1121.

Jansen, J. J., Van Den Bosch, F. A., & Volberda, H. W. (2006). Exploratory innovation, exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators. *Management Science*, *52*(11), 1661-1674.

Klassen, K.J., & Rohleder, T.R. (1996). Scheduling outpatient appointments in a dynamic environment. *Journal of operations Management*, *14*(2), 83-101.

Krasnikov, A., & Jayachandran, ,. S. (2008). The relative impact of marketing, research-and-development, and operations capabilities on firm performance. *Journal of Marketing*, 72(4) , pp.1-11.

Ku, R., & Saeed, Z. (2015). Impact of dynamic capabilities on firm performance. *Sukkur IBA Journal of Management and Business*, 2(2) , pp.20-42.

March, J.G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2 (1), pp. 71-87.

Melnyk, S.A., Bititci, U., Platts, K., Tobias, J., & Andersen, B. (2014). Is performance measurement and management fit for the future?. *Management Accounting Research*, *25*(2), 173-186.

Naudé, M. (2012). Sustainable development and organizational learning: mutually supportive. *International Journal of Business and Management Studies*, 1(1) , pp.523-540.

Protogerou, A., Caloghirou, Y., & Lioukas, S. (2011). Dynamic capabilities and their indirect impact on firm performance. *Industrial and Corporate Change*, 21(3), pp.615-647.

Citation Information: Bhardwaj, R., Bindra, S., & Srivastava, S. (2021). Sustainability through the lens of dynamic capability: a histographic analysis. *Academy of Marketing Studies Journal, 25*(S3), 1-6.

Rugman, A.M., & Verbeke, A. (2002). Edith Penrose's contribution to the resource-based view of strategic management. *Strategic Management Journal*, *23*(8), 769-780.

Savolainen, T., & Haikonen, A. (2007). Dynamics of organizational learning and continuous improvement in six sigma implementation. *The TQM Magazine*, 19(1), 6-17.

Teece, D (2007.). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. . *Strategic Management Journal*, 28(13), pp.1319-1350.

Teece, D., & Pisano, G. (1994). The dynamic capabilities of firms: an introduction. *Industrial and Corporate Change*, 3(3), pp.537-556.

Thornhill, S. (2006). Knowledge, innovation and firm performance in high-and low-technology regimes. *Journal of business venturing*, *21*(5), 687-703.

Winter, S. (2003). Understanding dynamic capabilities. *Strategic Management Journal*, pp.991-995.

Zhang, D., Linderman, K., & Schroeder, R. G. (2012). The moderating role of contextual factors on quality management practices. *Journal of Operations Management*, *30*(1-2), 12-23.

Citation Information: Bhardwaj, R., Bindra, S., & Srivastava, S. (2021). Sustainability through the lens of dynamic capability: a histographic analysis. *Academy of Marketing Studies Journal, 25*(S3), 1-6.