

Integrating the dialectic perspectives of resource-based view and industrial organization theory for competitive advantage – a review and research agenda

Bishwajit Nayak

School of Business Management, Narsee Monjee Institute of Management Studies University, Mumbai, India

Som Sekhar Bhattacharyya

Department of Strategy and Entrepreneurship, Indian Institute of Management Nagpur, Nagpur, India, and

Bala Krishnamoorthy

School of Business Management, Narsee Monjee Institute of Management Studies University, Mumbai, India

Abstract

Purpose – Academic dialogue related to ‘organizational performance’ in strategic management has primarily centred around the industrial organization theory (IO) and resource-based view (RBV). Both perspectives, though conceptually dialectic, have served as primary competing theories governing research studies in the domain of strategic management. However, the confluence of these theoretical perspectives has not been adequately explored to advance a shared view of competitive advantage. This study aims to explore the likelihood of embedded commonalities between RBV and IO.

Design/methodology/approach – A bibliometric analysis was conducted to visualize the intellectual map of studies and knowledge development encompassing these theories. This was followed by a comprehensive literature review to understand how the business environment (BE) and organizational capabilities have contributed towards attaining competitive advantage.

Findings – This study established that connecting the intellectual boundaries of these theoretical perspectives would facilitate better comprehension of the processes and outcomes in organizations. Integrating the knowledge emerging out of this methodological blend, a convergence framework connecting the intellectual boundaries of both theories was presented.

Practical implications – The framework that emerged from this study would help in better understanding of organizational behaviour from a dual theoretical lens. It would also motivate future studies to consider RBV and IO as complementary theories rather than the current narrative of competing theories.

Social implications – This study added to the efforts to achieve equilibrium between the BE and internal capabilities of organizations so as to maximize positive social externalities.

Originality/value – This study contributed to the limited attempts to leverage shared knowledge from a dual perspective using a comprehensive literature review in sequential combination with bibliometric analysis.

Keywords Bibliometric analysis, Competitive advantage, Resource-based view, Comprehensive literature review, Industrial organization, Theoretical integration

Paper type Literature review

1. Introduction

Strategic management research has disinterred diverse facets of firm behaviour as well as aided logical interpretations of the outcomes of specific behaviour patterns (Hitt *et al.*, 2020). The progress in the field of strategic management has strengthened the academic canvas with a distinct diversity in methodological and theoretical approaches to study competitive behaviour in

firms (Leiblein and Reuer, 2020). However, the strong foundation of theoretical paradigms and profundity of research could lead to a complacent phase in individual schools of thought in strategic management (Bettis and Blettner, 2020). Recent studies underscore the need to harness the diversity in the field to visualize areas of coherence and identify common boundaries between the approaches (Nag *et al.*, 2007). The emerging business complexities and uncertainties in the business environment (BE) entail the integration of multiple perspectives while retaining the uniqueness of theoretical viewpoints (Knight *et al.*, 2020). Adopting an alternative view

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of creating amorphous theoretical boundaries is useful for practicing managers to extract knowledge from a wide variety of disciplines and adapt to evolving business models (Dzwigol, 2020).

The industrial organization theory (IO) and resource-based view (RBV) have reigned over the field of strategic management over the past century (Bain, 1968; Chamberlin, 1933; Friedman, 1953; Penrose, 1959; Teece and Pisano, 2003). The origins of both theoretical perspectives emerged from the innate desire of businesses to remain competitive (Conner, 1991). The quest for isolating resources or business models which possessed the trait of accelerating the growth curve of organizations led to diverse research based on these philosophies (Barney, 2001; Mahoney and Pandian, 1992; Porter, 1981). Although these theories have been fostered by different schools of thought, the studies have mostly focussed on establishing the strengths of either perspective in accurately identifying models leading to successful organizations (Conner, 1991; Sarah and Pejvak, 2012). The fragmentation of the studies has resulted in the development of different competing frameworks that explain the performance of organizations (Kohtamäki *et al.*, 2019; Mauri and Michaels, 1998). Simultaneously, these inspired a latent viewpoint on the prospects of integrating these perspectives to present a more encompassing view of organizational performance (Babelyte-Labanauskė and Kriauciunas, 2018; Chen *et al.*, 2021).

Competitive advantage is created and sustained through a highly localized process (Porter, 1990). The success of an industry is specific to a country, and the differences in the local culture, values, economic scenario and institutional histories have an influence on the competitive advantage of organizations (Porter, 1990). The few yet significant attempts sowing the idea of a proximate dialogue between RBV and IO were made by Mahoney and Pandian (1992) when they proposed that these were complementary theories. This was followed by contributions from Mahoney and McGahan (2007) and Durand (2014), who advocated that a discourse on establishing common ground between both theories was essential for the strategic management domain. However, an active conversation in this direction did not adequately emerge owing to the apprehensions of respective schools of thought of ceding ground to the other (Wilson, 2012). A special issue by the *Strategic Management Journal* in the year 2017 reinforced the need to examine the feasibility of synthesizing these theoretical perspectives and developing a complementary view of organizational competitive advantage (Durand *et al.*, 2017). Encouraging the conversation in this direction, the articles in this special issue also pointed towards the blending of available strategic options by organizations based on the institutional environment (Dorobantu *et al.*, 2017).

The performance of organizations is influenced by endogenous (inside organization) and exogenous (industry and macro-economic factors). It is necessary to view organizational performance as a combination of both these factors (Huang *et al.*, 2015). Neither RBV nor the IO is individually capable of explaining the concept of competitive advantage in organizations (Huang *et al.*, 2015). Competitive advantage through better utilization of organization resources is the result of the aggregation of multiple temporary competitive advantages obtained from the BE (Wiggins and Ruefli, 2005).

A theoretically anchored *rapprochement* between RBV and IO perspectives is a fertile area for intellectual exploration and conceptualization. A systematic mapping of the field to sift the theoretical underpinnings from the constraining theoretical boundaries would enhance the understanding of organizational behaviour.

The interaction between organizational strategy formulation and its environment is complex and cannot be defined by a single theoretical approach (Mason, 2007). The strategic positioning of organizations can either be resource-based or product-based separately (Wernerfelt, 1984). Making sense of competitive strategies requires managers to gain an all-encompassing view of the strategic management literature and connect it with the new developments in the field (Cattani *et al.*, 2017). RBV and IO have co-existed for decades offering plausible explanations for the firm and market performance (Huang and Sylvie, 2010). A literature review of the theories and their shared knowledge can lead to the discovery of synergistic advantages strengthening the pursuit of competitive advantage by firms (O' Cass and Weerawardena, 2010). Responding to these calls, there have been visible attempts towards exploring integrative views of competing theoretical perspectives (Babelyte-Labanauskė and Kriauciunas, 2018; Chen *et al.*, 2021). The transforming BEs and newer forms of competencies demand reinvention or integration of the traditional strategy theories (Sanchez and Heene, 1997). RBV entails that organizations strive to create value through the exploitation of internal resources, whereas IO attempts to attain the same through economic rent generation (Mahoney and Qian, 2013). The ingredients of organizational capabilities (OC) complement the structure–conduct paradigm, which is a basic tenet of IO, in creating superior organizational performance (Chatzoglou *et al.*, 2018).

The external environment in which an organization operates has an impact on the strategic choices it makes (Ghezzi *et al.*, 2015; Hsiao and Chen, 2013). Businesses cannot afford to remain isolated either from their competitors or their environment (Leonidou *et al.*, 2017). The importance of the external BE to organizations has been aptly demonstrated in the COVID-19 pandemic crisis, which has forced the adoption of non-traditional business strategies (Amankwah-Amoah *et al.*, 2021). Dissecting the different types of external environments and their influence on competitive advantage will facilitate a deeper understanding of the competitive positioning of organizations in response to changes in the environment (Schilke, 2014).

The contribution of internal organizational factors has been underestimated in strategy literature (Qaiyum and Wang, 2018). Powell (1992) opined that organizations need to align their internal capabilities with the BE to gain supernormal profits. Qaiyum and Wang (2018), however, countered this view stating that it may not always be necessary or enough to match internal capabilities with external forces for gaining a competitive advantage. Looking inside organizations for sources of competitive advantage is necessary, along with gleaning the various aspects of the BE (Barney, 1995). External environmental pressure influences resource selection, thus, contributing to the strategy formulation process in organizations (Dubey *et al.*, 2019). Hart (1995) proposed that while the competitive advantage of organizations rests in their

internal resources and capabilities, it is essential that there is an interaction of organizations with their natural environment.

There have been varied opinions on the generalizability of RBV and its construct validity (Gibbert, 2006; Levitas and Ndofor, 2006). Also, the different impacts of the firm and industry effects on core strategies of organizations indicate that the boundary conversation between RBV and IO warranted exploration (Mauri and Michaels, 1998; Raduan *et al.*, 2009). There is a paucity of research studies that have focussed on the complementary nature of RBV and IO in addressing the common issue of competitive success (Huang *et al.*, 2015). Chen *et al.* (2021) underlined that limited attempts have been made to adopt an integrated view of the outward focussed perspective with the inward focus on OC. Thus, it is imperative to explore the interface of the theoretical perspectives, which could facilitate a more informed conceptualization of competitive advantage.

The fundamental premise that this article intends to explore is the likelihood of embedded commonalities between RBV and IO using an integrated bibliometric and systematic literature review method. The research objectives formulated for the study were as follows:

- How have the theoretical approaches of RBV and industrial organization shaped the concept of competitive advantage?
- How has the intellectual structure of “RBV–IO” been connected with the knowledge development in the field of “organizational capabilities-business environment (OC–BE)”?
- What are the emerging areas of research which can enhance the understanding of competitive advantage through harmonization of RBV and IO?

RBV and IO have traditionally been associated with theoretical approaches, which explicate the nuances of OC and the BE (Barney *et al.*, 2001; Lado *et al.*, 1992). Moreover, studies in the area of OC have inevitably delved into an examination of the BE, indicating the interlinkages between them (Liu and Yang, 2019; Stalk *et al.*, 2012). The resilience and usefulness of OC are reflected at different levels of uncertainty in the BE (Duchek, 2020). Thus, the OC–BE dyad has received simultaneous attention along with the RBV–IO paradigm (Lee and Klassen, 2016).

Accordingly, this study examined the theoretical development of RBV–IO along with OC–BE from three methodological perspectives. Firstly, a theoretical overview of the primary theories of competitive advantage (industrial organization perspective and RBV) is undertaken to comprehend the theoretical orientation, ontological and epistemological positions, extensions and emerging concepts between RBV and IO. This is followed by a bibliometric analysis of interfaces between the OC–BE and RBV–IO. Based on the intellectual mapping of keywords identified from bibliometric analysis, a systematic review of literature is presented to understand the external BE and OC, which have been considered as traditional sources of competitive advantage. This methodological diversity resulted in three significant theoretical contributions. Firstly, from a methodological perspective, simultaneous utilization of bibliometric analysis and comprehensive literature review

provides a novel viewpoint to the search for theoretical complementarity (Xu *et al.*, 2018). Secondly, conducting a comprehensive literature review in sequential combination with bibliometric analysis leads to better knowledge creation in research in emerging fields like the RBV–IO interface (Caputo *et al.*, 2018; Rialti *et al.*, 2019). Finally, although bibliometric analysis and systematic literature reviews related to RBV and IO have been conducted separately (Albort-Morant *et al.*, 2018; Ferreira *et al.*, 2016a; Ferreira *et al.*, 2016b; Lockett and Wild, 2014), a combination of both was essential to explicate a shared value between the theoretical perspectives.

The rest of the article has been structured as follows. Section 2 deals with the research methodology. This is followed by the theoretical comprehension of RBV and IO in Section 3, a bibliometric analysis of RBV–IO and OC–BE interfaces in Section 4 and a comprehensive literature review in Section 5. Finally, the findings from the three methods are integrated to present a convergence framework for RBV and IO in Section 6. Section 7 provides the contribution of the study, implications and future directions of research.

2. Research methodology

Considering the need for a comprehensive review of the field and also to explore feasible areas of interaction between the RBV and IO, this study combined multiple methods to establish a robust framework straddling both the theoretical paradigms. The resource-based review and industrial organization theories were first reviewed in detail to outline the key elements of the theoretical paradigms. Subsequently, a bibliometric analysis was conducted for the dyads of RBV–IO and OC–BE to track the development of research in these fields. To generate novel perspectives, a comparative bibliometric analysis (Maalouf *et al.*, 2021) was conducted to parallelly examine the developments in the studies of the “Resource Based View – Industrial Organization Perspective” (RBV–IO) interface and the “Organizational Capabilities – Business Environment” (OC–BE) interface. This enabled the visualization of whether the trajectory of studies was similar or different for the two pairs of interfaces. This was required to understand the nature of research which had explored the theories jointly, the most productive and influential authors, co-authorship and most frequently used keywords.

This parallel examination was conceptualized based on the approach of de Camargo Fiorini *et al.* (2018) to study multiple theories and the key components of those theories. Finally, a comprehensive thematic review was conducted based on themes arising from the bibliometric analysis. This methodological plurality allowed the accomplishment of the study objectives using diverse methods and combining the results for developing a logical framework.

3. Comprehension of theoretical perspectives

The primary theoretical perspectives of strategic management of organizations towards the attainment of competitive advantage have been discussed in this section. A discourse on industrial organization perspective and RBV, respectively are presented.

3.1 Industrial organization

The “Industrial Organization” paradigm emerged from the domain of industrial economics, wherein the basic philosophy was that the sources of competitive advantage of an organization were present in the BE (Lado *et al.*, 1992). The roots of this approach are found in neo-classical economics (Chamberlin, 1933; Friedman, 1953). The theorists from this domain adopted an “outside in” view of competitiveness and argued that organizations must analyse the environment to isolate sources of competitive advantage (Stonehouse and Snowdon, 2007). Bain’s framework of “Structure–Conduct–Performance (SCP)” served as the basic framework for this theory (Bain, 1968). In this framework, the performance of organizations is considered to be associated with the conduct of organizations in the market which arise from the way the industry is structured (Bain, 1968). The competitive advantage arises from the barriers to competition created due to the market structure (Makhija, 2003). The SCP framework was the focus of numerous research studies in the decades of 1960s to 1980s (Baldwin, 1969; Caves, 1972). The market concentration is based on the number of players, size of the major players, the relative cost structures and differentiation of products constitutes the “structure” of the market (Bikker and Haaf, 2002). This “structure” determines how organizations would pursue competitive strategies, which is referred to as the “conduct” of organizations, and finally influences organizational performance (Caves, 1980).

Within the industrial organization approach, two schools of thought existed – the classical view and the modern view of industrial organization (Conner, 1991). Mason (1939) and Bain (1956) espoused the classical view, which assumes that organizations had no direct control over the BE, and hence, over its performance. This view assumes that internal resources do not have any contribution to the performance of organizations (Porter, 1981). However, the modern view of industrial organization assumes that organizations could exert an influence on the external environment (structure), and thus, impact the performance through their strategies (conduct) (Miller, 1988).

3.2 Resource-based view

The RBV originated with the study of Penrose (1959) where the internal and external growth of organizations was attributed to the nature of resource deployment. Rubin (1973) conceptualized organizations as bundles of resources. Wernerfelt (1984) proposed that organizational resources and products were complementary to each other, and performance was driven by resources, which contributed to the development of those products. The RBV theorists argue that the performance of organizations can be explained by the differences in their resources and capabilities (Carmeli and Tishler, 2004). Organizations which are able to outperform in the market are also able to nurture and nourish resources more efficiently than their competitors (Ireland *et al.*, 2003). The central focus of RBV is, thus, grounded in the ability of organizations to accumulate and deploy resources effectively (Barney *et al.*, 2001). Consequently, this pushed the understanding of organizational performance from the industry level to organizational level activities (Ray *et al.*, 2004).

Organizational resources must be causally ambiguous and socially complex to achieve competitive advantage (Teece, 1987). Prahalad and Hamel (1990) conceptualized that organizational performance was enhanced when resource deployment was combined with skills, knowledge and technology. Barney (1991) advanced the early knowledge of RBV and proposed that organizations gained a competitive advantage if they could develop resources that were “valuable, rare, inimitable and non-substitutable”. Resources that were tacit and not easily identifiable were difficult to replicate (Grant, 1991). Such resources are embedded in the skills and tacit knowledge generated from human resources (Berman *et al.*, 2002). Moreover, activities involving large groups of people who contribute to the generation of team knowledge produce socially complex resources which cannot be copied easily (Stacey, 2001). The utilization of resources to develop distinctive competencies has been considered as more critical rather than mere possession of resources and capabilities (Mahoney and Pandian, 1992).

Dynamic capabilities (DC) emerged as a result of the extension of RBV to accommodate for the high level of uncertainty, volatility and ambiguity that firms confronted in competitive market conditions (Ambrosini and Bowman, 2009; Saleh and Watson, 2017). DC have been considered a key to competitive advantage in organizations (Teece and Pisano, 2003). DC is related to the idea of change or motion, which transforms the nature of the “ordinary capabilities” of organizations into “higher level capabilities” (Winter, 2003). In such markets, where the contours of competitive advantage change rapidly over time, the ability of managers to use DC determines whether organizations are able to sustain competitive advantage (Eisenhardt and Martin, 2000). Although resources form the core of RBV, the strategy of modifying, altering, eliminating and creating new resources to compete in uncertain markets forms the core of DC (Sirmon *et al.*, 2007). These capabilities facilitate organizations to manage volatility in the market by appropriately configuring the existing resources (Day, 1994).

DC can take multiple forms ranging from specific skills to routine processes within organizations (Eisenhardt and Martin, 2000). Product development skills of managers or the strategic decision-making process can both be developed as DC if these can be renewed and reconfigured to suit the changes in the BE (Tondolo and Bitencourt, 2014). Thus, sensing the environment and seizing the opportunities for competitive advantage is the essence of DC (Li and Liu, 2014). Replicating these skills is not easy for competitors as these are linked to the idiosyncratic mental models of managers and the deeply embedded values of organizations (Teece, 2018). Over a period of time, these routines became ingrained characteristics of organizations that even organization managers can find difficult to decode (Wang and Ahmed, 2007).

Table 1 presents the core elements of RBV and IO and the research approach adopted for these theoretical perspectives. The divergence between the theoretical approaches as manifested in the past studies is evident in the theoretical orientation, ontological and epistemological positions, extensions and emerging concepts between RBV and IO.

Table 1 Comparison of core elements between resource-based view and industrial organization theory

Core elements	Resource-based view	Industrial organization theory
Theoretical orientation	Inside out	Outside in
Basic framework	Valuable, rare, inimitable and non-substitutable resource framework	Structure-conduct-performance framework
Sources of competitive advantage	Internal organization resources	External business environment
Ontological orientation	General objectivism	Social realism
Epistemological posture	Positivism (causal mechanism)	Constructionism (social processes)
Theoretical extension	Dynamic capabilities – continuous renewal of resources	Behavioral industrial organization – market consumer interaction
Emerging concepts	Social/natural RBV	Fourth industrial revolution

Source: Authors own conceptualization

4. Bibliometric review of theoretical perspectives

The discussion on RBV has centred around “organizational capabilities”, and its ability to generate competitive advantage (Barney *et al.*, 2001). However, the probability of OC being eroded or replaced to adapt to contextual factors enthused the debate on RBV being able to trace the source of competitive advantage (Collis, 1994). The proximal relatedness of RBV and OC has stimulated research on whether RBV binds capabilities to organizations; thus, preventing sharing of resources (Alexy *et al.*, 2018). Similarly, IO has been associated with uncertainty in the BE, and its effect on the way firms deploy resources (Miller, 1988). The strategic agility that firms need to incorporate into their business is influenced by the BE (Möller *et al.*, 2020). The proximate relationship between the BE and IO establishes the need for studying the BE in tandem with IO (Audretsch, 2018).

R software was used to conduct the bibliometric analysis supported by biblioshiny to visualize and map the intellectual structure of the field (Aria and Cuccurullo, 2017). Based on the approach of de Camargo Fiorini *et al.* (2018), the articles were selected from the “Scopus” database for both interfaces using the following queries:

(TITLE-ABS-KEY(“organizational capabilities”) AND TITLE-ABS-KEY(“business environment”) AND (LIMIT-TO (SUBjAREA,BUSI”) OR LIMIT-TO (SUBjAREA,DECI”) OR LIMIT-TO (SUBjAREA,SOCI”)) AND (LIMIT-TO (DOCTYPE,ar”)) AND (LIMIT-TO (LANGUAGE, English”)) AND (LIMIT-TO (SRCTYPE,j”)))

(TITLE-ABS-KEY(“resource based view”) AND TITLE-ABS-KEY(“industrial organization”) AND (LIMIT-TO (SUBjAREA,BUSI”) OR LIMIT-TO (SUBjAREA,SOCI”) OR LIMIT-TO (SUBjAREA,DECI”) OR LIMIT-TO (SUBjAREA,ARTS”)) AND (LIMIT-TO (LANGUAGE, English”)) AND (LIMIT-TO (SRCTYPE,j”)))

The filters applied in the query ensured that the titles, abstracts and keywords of the research manuscripts were analysed to narrow down on the articles, which were limited to specific business domains and English language only. Table 2 presents the main information related to the final set of articles that were used for the bibliometric analysis.

In the past 25 years, the number of publications that have explored RBV–IO (65) was higher than those which reviewed the OC–BE (38) interface. However, interestingly, the average number of citations has been higher for OC–BE (283.6) than

RBV–IO (43.55). This indicated that although the number of articles published for RBV–IO were higher but they were not highly cited by other related studies implying the apprehensions related to a theoretical convergence. Researchers have rather limited the discussion to an OC–BE context to gain an indirect understanding of the RBV–IO interface. This was also reflected in the metric of authors per document being higher for OC–BE (2.26) being higher than RBV–IO (2.12). The annual scientific production depicted in Figures 1 and 2 indicated that the annual growth rate of RBV–IO was higher at 6.5% compared to that of OC–BE at 0%; thus, pointing towards an increasing interest in the former (Monroy and Diaz, 2018).

Further examination of the three-field plot illustrated in Figures 3 and 4 demonstrated that the number of journals inclined to publish articles in OC–BE were significantly higher when than RBV–IO (Munim *et al.*, 2020).

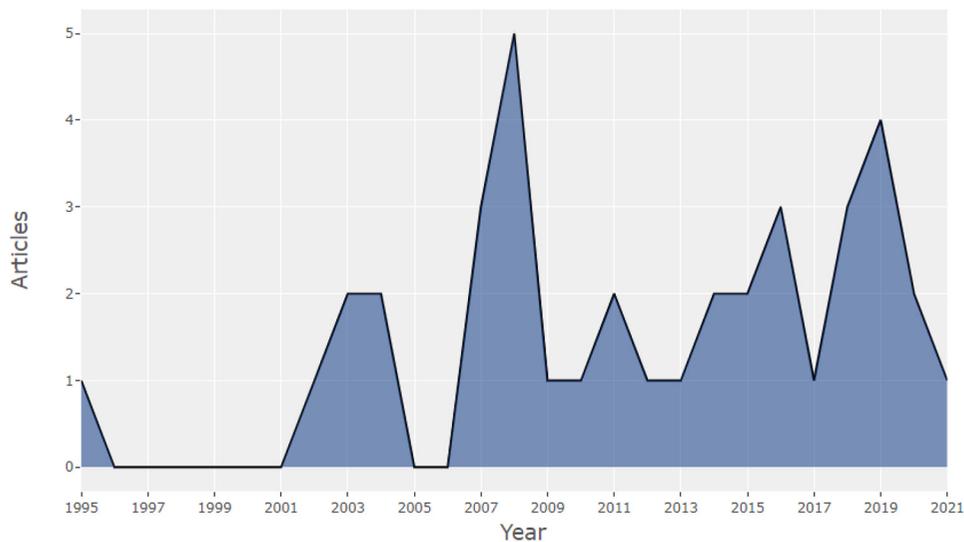
Only highly ranked sources such as Strategic Management Journal (H Index-269) and Journal of Business Research (H Index-179) published research related to RBV–IO, whereas studies related to OC–BE were accepted by a larger spectrum of journals. Studies in the OC–BE context focussed on “organizational capabilities”, “dynamic capabilities”, “business environment” and “competitive advantage”, whereas RBV was explored more than IO in the RBV–IO interface. Interestingly, RBV–IO studies emerged majorly from Japan and Sweden, followed by USA and China. Compared to that, OC–BE was studied extensively by authors from Sweden and Australia, followed by USA and Malaysia. An emphasis on IO research in China has emerged with the complex relationship between the government and markets leading to the exploration of diverse forms of industrial structure (Cheng, 2020). Similarly, the post-World War II industrial evolution has dominated the interest in IO in the Japanese economy (Quan, 2021).

Also, a closer examination of the keywords in the three fields plot revealed that although “competitive advantage” was amongst the top 20 keywords in both interfaces, the RBV–IO studies have not considered it as a prominent research objective compared to OC–BE. A parallel observation was that “organizational performance” featured in the prominent keywords for RBV–IO while “financial performance” was exhibited in OC–BE. Thus, in the OC–BE context, “competitive advantage” and “financial performance” co-appeared as stronger keywords ascribing the financial

Table 2 Main information for articles selected for bibliometric analysis

Description	Organizational capabilities + business environment (OC–BE)	Resource-based view + Industrial organizational theory (RBV+IO)
Timespan	1995:2021	1995:2020
Sources (Journals, Books, etc.)	35	53
Documents	38	65
Average years from publication	9.11	12
Average citations per document	283.60	43.55
Average citations per year per doc	16.56	3.33
References	2,943	4,661
<i>Document types</i>		
Article	38	62
Conference paper		1
Review paper		2
<i>Document contents</i>		
Author's keywords	163	216
<i>Authors collaboration</i>		
Single-authored documents	7	20
Documents per author	0.442	0.471
Authors per document	2.26	2.12
Co-authors per documents	2.39	2.25
Collaboration index	2.55	2.67

Figure 1 Annual scientific production for OC–BE



Notes: Annual Growth Rate: 0% X-axis: Years of publication. Y-axis: No. of articles published

connotation attributed to competitive advantage in previous research (Powell, 1992; Zhou *et al.*, 2009). This was further reinforced in the word clouds displayed in Figures 5 and 6.

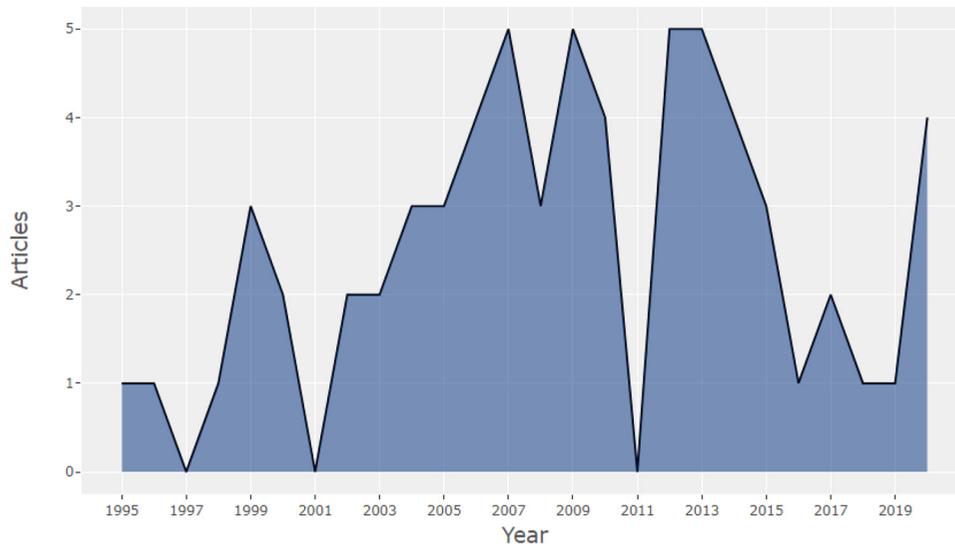
Also, “knowledge management”, “business environment” and information systems”, “strategic agility” are featured as prominent keywords for OC–BE conveying the capabilities that have been mostly studied in this interface. For RBV–IO, “strategic planning”, “management tool” and “strategic management” featured as strong keywords. “Innovation”, which has been explored profoundly in both RBV–IO and OC–BE featured in both the contexts (Prajogo, 2016; Terziovski, 2010; Weerawardena and Mavondo, 2011). Expectedly,

“industrial organization economics” is featured as a strong keyword for RBV–IO; also, “transaction cost economics” emerged as a prominent keyword for OC–BE indicating its relevance for the study of competitive advantage based on OC (Hill, 1995; Silverman, 1999).

The thematic map of keywords depicted in Figures 7 and 8 was examined to understand how the themes related to each interface have developed over time (Rodríguez-López *et al.*, 2020).

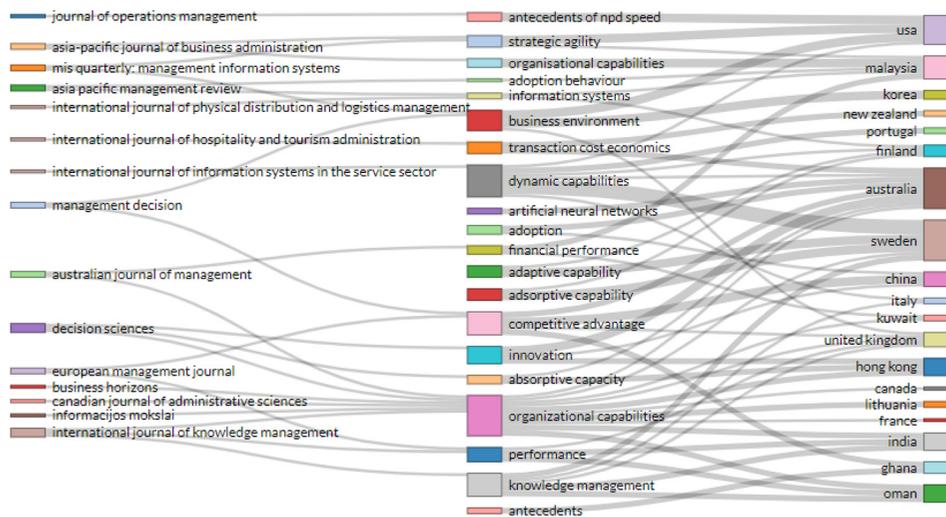
The motor themes in the OC–BE interface comprised of “knowledge management”, “business environment”, “organizational capabilities” and “dynamic capabilities”

Figure 2 Annual scientific production for RBV-IO



Notes: Annual Growth Rate: 6.5% X-axis: Years of publication. Y-axis: No. of articles published

Figure 3 Three fields plot of top 20 sources, keywords and countries for OC-BE



indicating the importance attributed to these concepts by researchers. Correspondingly, the RBV-IO interface did not have any major motor theme (“China” featured at the border of motor and basic theme quadrants). This indicated that studies in RBV-IO were yet to ascribe a leadership role to any concept in this context. The niche themes which were yet to be adequately explored and understood comprising “transaction cost economics” in OC-BE and “organizational performance” and “environmental management” in RBV-IO.

This pointed to an emerging interest in the simultaneous consideration of the environment and organizational performance and the linkages between corporate sustainability and performance (Gunarathne *et al.*, 2021; Hartmann and Vachon, 2018). There were no areas that were emerging/declining in RBV-IO conveying that this interface was still

uncharted to a significant extent. However, information systems featured as a theme in the emerging/declining quadrant in OC-BE. Research in the field of information technology (IT) has been increasing in the recent past owing to the different forms of emerging technologies transforming the BE for organizations and forcing a reconfiguration and renewal of OC (Khanagha *et al.*, 2017; Schiavi and Behr, 2018). The basic concepts which have been traditionally important and continue to hold its centrality comprising of “financial performance”, “competitive advantage” for OC-BE and the respective theoretical perspectives in RBV-IO in addition to “competitive advantage” and “innovation strategy”.

The top 20 cited sources depicted in Figures 9 and 10 for both interfaces did not show any significant differences for OC-BE and RBV-IO, with high-ranking journals featuring for both.

Figure 4 Three fields plot of top 20 sources, keywords and countries for RBV-IO

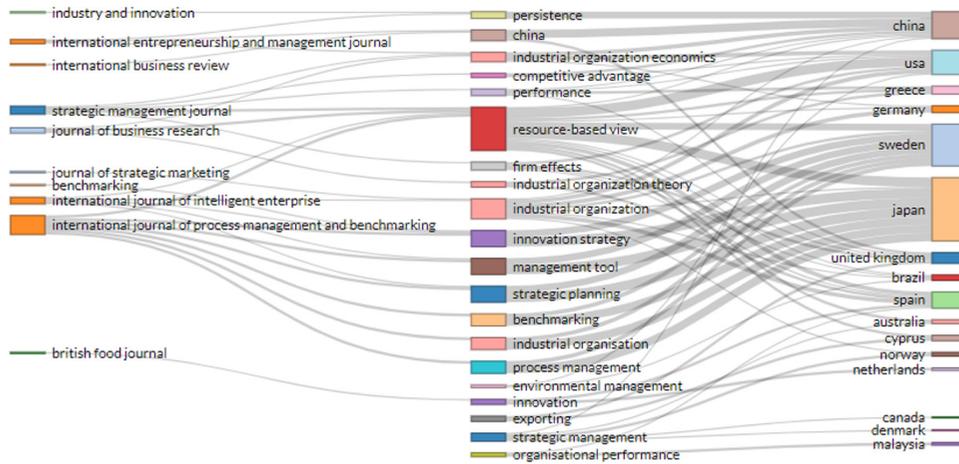


Figure 5 Word cloud of keywords for OC-BE



Figure 6 Word cloud of keywords for RBV-IO



The only difference noted was that the highly ranked economic journal American Economic Review (H Index-277) featured as a source for RBV-IO studies highlighting the interests of economists in this context.

Figures 11 and 12 depict the co-citation analysis of the studies indicating three clusters in OC-BE and two clusters in RBV-IO.

The two clusters in RBV-IO demonstrated a clear distinction between the two theories and authors from the respective

Figure 7 Thematic map of keywords for OC–BE

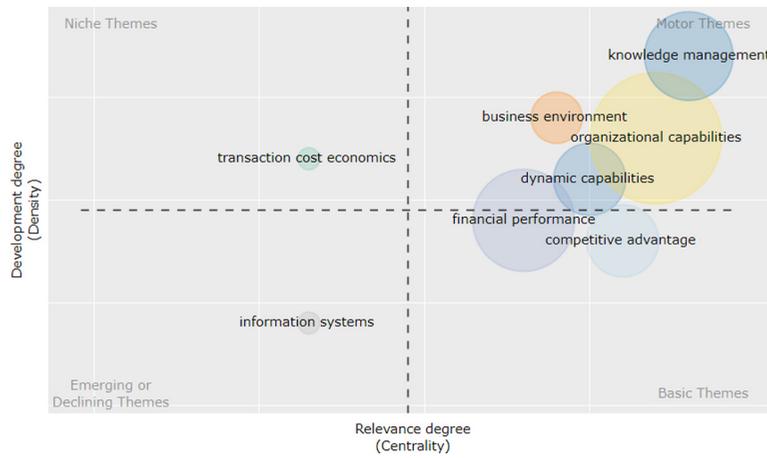


Figure 8 Thematic map of keywords for RBV–IO

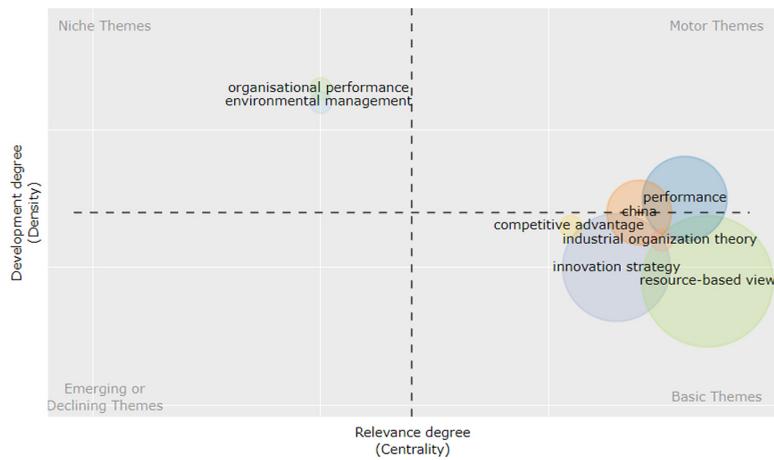


Figure 9 Top 20 cited sources for OC–BE

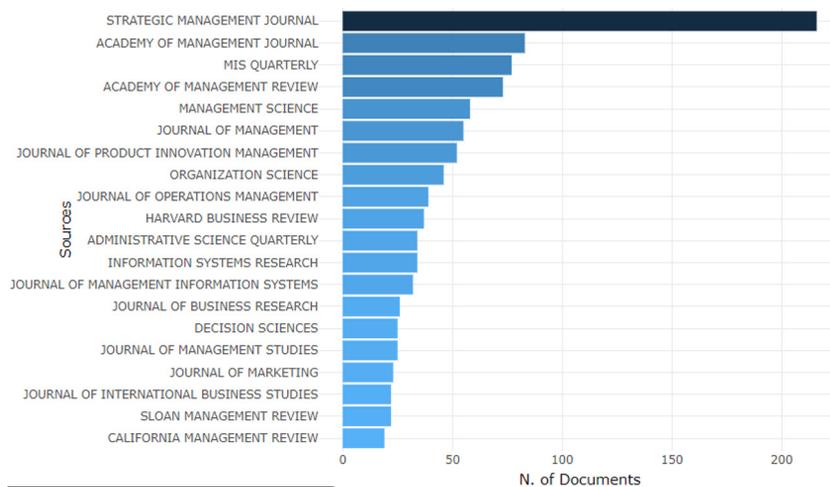
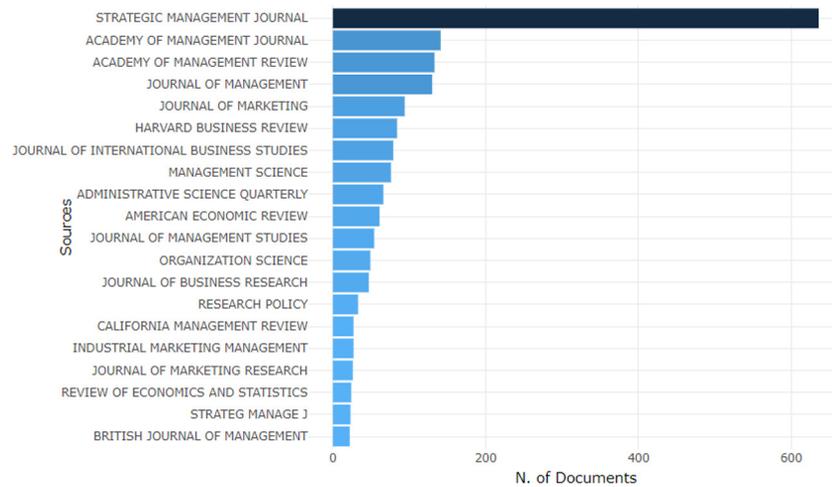
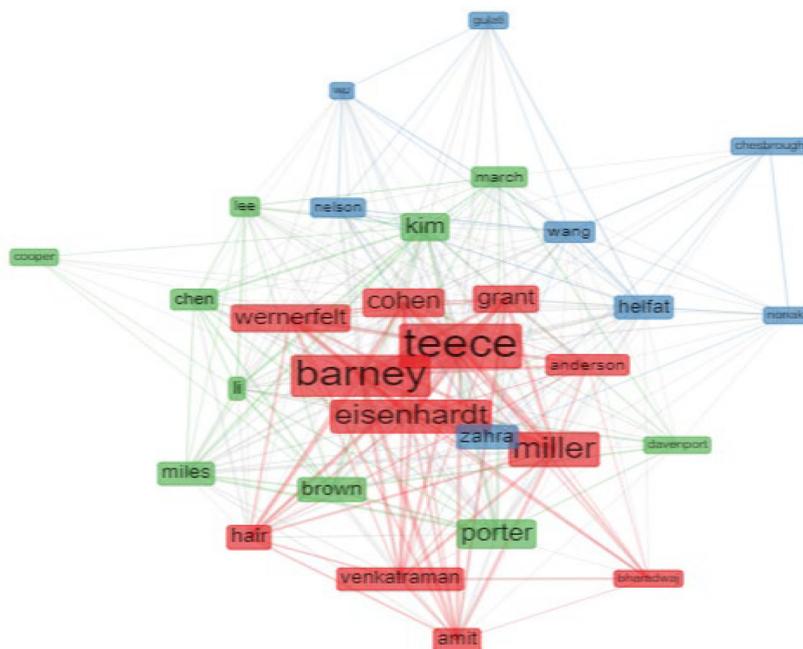


Figure 10 Top 20 cited sources for RBV–IO**Figure 11** Authors co-citation network for OC–BE

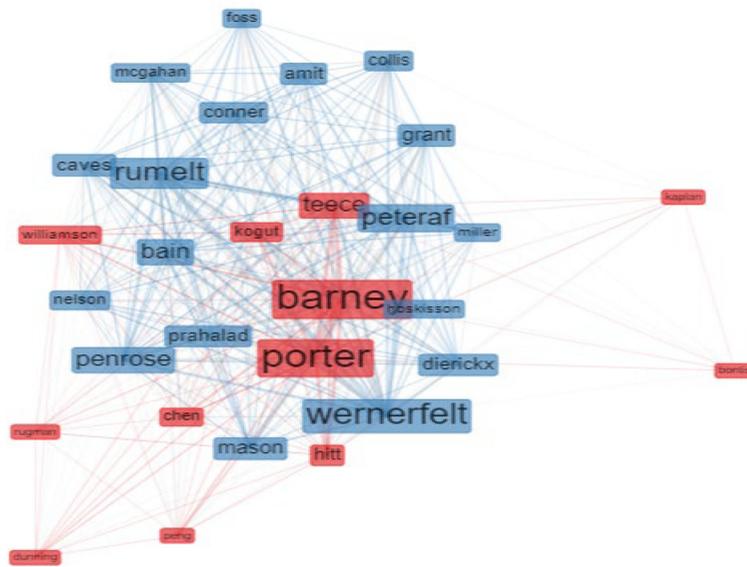
theories being cited together. Although the proponents of RBV such as Barney, Porter, Hitt and Teece were cited together, authors such as Penrose, Peteraf, Dierickx and Bain, who espoused the importance of resource allocation and deployment for organizational growth, were cited together. The contribution of DC in the exploration of RBV–IO was also demonstrated with authors such as Wernerfelt, Grant and Chen featuring in both the interfaces. A similar bifurcation was broadly observed in the OC–BE author co-citation networks. A small third cluster was formed for OC–BE by the co-cited studies of Nonaka, Chesbrough and Grant, which indicated the

growing interest in “innovation” and “knowledge” being considered as significant sources of competitive advantage (Chesbrough, 2011; Nonaka, 2005).

5. Comprehensive literature review

Bibliometric analysis of the RBV–IO and OC–BE interfaces enabled mapping of the intellectual structure of research in competitive advantage. Thematic prominence of keywords emerged from the diverse visualizations along with the evolution of these themes over time. The bibliometric output

Figure 12 Authors co-citation network for RBV–IO



related to the BE indicated that the competitive, regulatory and technological environment are critical factors influencing competitive advantage. The interdependence between these three aspects of the BE determines the strategic path formulation of firms. Although the competitive environment impacts the organizational design (Koch and Windsperger, 2017), the regulatory environment influences the boundaries of the strategy map of firms (Dong, 2019). Interestingly, the technological environment transforms the competitive landscape form firms by altering both the competitive and regulatory landscape (Griffy-Brown *et al.*, 2020). The bibliometric output for OC indicated that knowledge, product innovation, culture, strategic agility and technology strategy are inevitable components of a competitive advantage plan. Table 3 presents bibliometric summary of the key themes and areas which were provided by the different data visualizations.

Drawing upon the bibliometric output and theoretical review, these major themes were explored comprehensively to

further establish linkages and common threads amongst the theoretical perspectives.

5.1 Review of the external organizational environment

The BE is a critical factor in determining the success of an organization (Porter, 1981; Teece *et al.*, 1997). The strategy emerged from the need of organizing the events in a BE into a systematic framework, which made it easy for organizations to interpret the environment and take decisions (Porter, 1981). The concept of DC in strategy to create and sustain competitive advantage emerged from the need of organizations to understand their BE (Eisenhardt and Martin, 2000; Teece, 2009, 2018; Wang and Ahmed, 2007). The rapid changes in the BE require organizations to develop their capabilities that could meet the developments in the technology and competitive environments (Ulrich and Wiersema, 1989). The BE created by governments was the reason behind the success of certain industries in a country and failure in another

Table 3 Summary of bibliometric analysis

Bibliometric analysis reference	Business environment	Organizational capabilities
Three fields plot	<ul style="list-style-type: none"> Benchmarking Transaction cost economics Organizational performance Firm effects 	<ul style="list-style-type: none"> Information systems Innovation Knowledge management New product development Strategic planning
Word cloud and thematic evolution	<ul style="list-style-type: none"> Business competition Competitiveness Competitive intensity 	<ul style="list-style-type: none"> Cultural capabilities Strategic agility Innovation strategy
Top 20 cited sources and author co-citation analysis	<ul style="list-style-type: none"> Technological changes Regulatory and economic environment 	<ul style="list-style-type: none"> Product innovation Technology strategy

(Kapur and Ramamurti, 2001). Lieberman and O'Connor (1972) indicated that leadership factors had a lesser contribution to the variance in performance of organizations when compared to the environmental factors. The strategies that organizations deploy to adapt to the BE would have a direct impact on the return on assets (Selling and Stickney, 1989). Organization managers must identify the weaknesses in the BE and select the right strategies to exploit the opportunities (Ansoff, 1975; Miles and Snow, 1978). To sustain a competitive advantage, organizations need to review and renew their resources to match the changes in the BE (Ambrosini and Bowman, 2009). This warranted a deeper exploration into the different types of BEs within which organizations interact (Möller *et al.*, 2020).

5.1.1 Competitive environment

Competitive environment represents the competitiveness in the BE in which organizations operate. It comprises of two factors – the “level of pressure from demanding customers” and the “level of competition in the environment” (Holm *et al.*, 2005). The competitive environment of an organization is categorized by the uncertainty of customer demands and the industry concentration (Ray *et al.*, 2009). Earlier studies have found a strong influence of a competitive environment on organizational performance (Porter, 1990).

The strategic orientation of organizations is determined by the competitive environment (Slater and Narver, 1994). Organizations must nurture a practice of gathering information on the competitive environment to frame meaningful strategies (Chan *et al.*, 2004). Knowledge of the competitive environment enables the salesforce to devise targeted strategies for increased sales and improved performance (Schwepker and Ingram, 1994). The nature of manpower, skills and knowledge required by organizations is also influenced by the competitive environment (Schwepker and Ingram, 1994). A high industry concentration in a specific industry segment due to low entry barriers could lead to a state of “hypercompetition” (D’Aveni, 1994); thus, driving down the prices and compelling organizations to be more competitive (Porter, 1980).

Managerial perceptions of the competitive environment are driven by the way managers subjectively view competing industries and their interpretation of the level of competition (Panagiotou, 2006). The level of technology to be used by an organization is also influenced by the competitive environment (Ray *et al.*, 2009). The competitive intelligence generated by organizations and the management of knowledge resources could help organizations to perform more efficiently in a highly competitive environment (Shujahat *et al.*, 2017).

5.1.2 Regulatory environment

Previous studies have suggested that the regulatory environment has a strong influence on the financial performance of an organization (Jiao, 2011). The power of the market and the influence it could exert on other businesses depend on the nature of the regulatory environment (Krämer and Wohlfarth, 2018). There is a positive association between organizations that adhere to prescribed disclosure norms required by regulation and their performance (Jiao, 2011). Organizations need to align their strategic intent (Geiger and Hoffman, 1998) with the prevailing market regulations to compete suitably and fairly with the other players (Corsi *et al.*,

1991). The development of a market is critically dependent on the nature of the regulations (Qu *et al.*, 2005). It is essential for regulations to be both strict and flexible, depending on the maturity level of the business.

Further, it has been recognized that market regulations influence the strategic orientation of organizations (Corsi *et al.*, 1991). Market regulations also specify the corporate governance structure for organizations along with the rules for operating in a competitive environment (Siddiqui and Sharma, 2010). The interests of all stakeholders within the business (shareholders, consumers and employees) and associated with it (vendors and suppliers) must be considered while regulations are framed (Vracheva and Mason, 2015). The entry of organizations into a market needs to be guided by the philosophy of sustainability and the ability to operate in the existing BE (Prantl, 2012).

5.1.3 Technological environment

Strategy and technology are inseparable, and each one affects the other in the present and futuristic perspective (Itami and Numagami, 1992; Nayak *et al.*, 2019). Organizations need to have a sound understanding of the technological environment to be able to attain a competitive advantage (Dugal and Schroeder, 1995). The ability to respond quickly to the competition using technology competence has been considered as a critical organization capability (Tallon and Pinsonneault, 2011).

The constantly changing complexities in business requires organizations to have DC to handle the challenges effectively (Eisenhardt and Martin, 2000; Teece, 2009). Competence in technology and the ability to analyse data for improving business processes has been espoused as a contemporary organization dynamic capability to improve performance (Giannakos *et al.*, 2018). The advent of emerging technologies such as cloud computing, robotics, machine learning, artificial intelligence and deep learning techniques has transformed the technological environment for organizations compelling them to reorganize their business models (Schiavi and Behr, 2018).

The nature of product innovation and the investment in the research and development initiatives of an organization are also determined by the technological environment in which organizations operate (Tinn, 2010). The technological environment influences the order of market entry of organizations, and hence, the time is taken by organizations to develop a competitive advantage (Ulhoi, 2012). Although the importance of technology has been realized by most organizations, the positioning of the IT perspective determines how successfully organizations could achieve their objectives (Tippins and Sohi, 2003).

5.2 Review of internal organizational capabilities

In addition to the external environment, organizational level factors or resources play a critical role in the attainment of competitive advantage (Mainardes *et al.*, 2021; Mora Cortez and Johnston, 2019; Qaiyum and Wang, 2018). The sources of competitive advantage exist in the BE as well as inside organizations, which need to be understood and studied by organization managers (Rouse and Daellenbach, 1999). A comprehensive review of the internal sources of competitive advantage was undertaken to understand how RBV had been explored by researchers (Barney, 1995). The key OC, which is

featured in the bibliometric analysis summary (Table 3), was reviewed comprehensively.

5.2.1 Knowledge management

Knowledge as a resource has been recognized as a very strong source of competitive advantage due to its non-imitable and valuable characteristics (Regner and Zander, 2011). With other factors of the BE such as regulatory norms and business processes becoming more standardized and uniform across players, the way knowledge is captured, retained and shared within an organization determines the level of competitive edge that it could achieve (Osterloh and Frey, 2000). Knowledge management (KM) is considered as the capability to identify and manage the spectrum of core competencies necessary for knowledge exhaustive business (Goel *et al.*, 2010). Knowledge has been classified into documented knowledge, which is available for learning and training purposes *vis a vis* tacit knowledge, which is gained through experience and individual learning (Herschel *et al.*, 2001). These characteristics of knowledge make it interesting for organizations to develop resources for retention and sharing of knowledge (Bender and Fish, 2000). Also, because tacit knowledge is entirely dependent on an individual's intellectual capability and organization's collaboration with the business entities within its market domain, organizations must make efforts to retain and nurture the knowledge base for future gains (Wiklund and Shepherd, 2003).

KM is closely interrelated to the other OC. The interaction of KM with technology is supported well in literature, and the combination of both is known to provide a competitive advantage to organizations (Wiklund and Shepherd, 2003). Gaining more knowledge about the BE could help an organization shape its business strategy and strategic intent suitable for it (Fang and Chen, 2016). It seeks to create an innovative culture that enables greater learning and enhanced sharing of knowledge across organizations (Urbancova, 2013). Similarly, organizational culture has also been found to be a determinant of the kind of KM strategies used by an organization (Alavi *et al.*, 2005). Product innovation is facilitated by organizational alliances and knowledge sharing across all levels of organizations (Hurley and Hult, 1998).

5.2.2 Organizational culture

Organizational culture is defined as "a complex set of values, beliefs, assumptions and symbols that define the way in which an organization conducts its business" (Barney, 1986). Organizations that maintain a culture satisfying the characteristics of being rare, valuable and non-imitable could successfully attain competitive advantage (Barney, 1986). The culture of an organization is believed to have an impact on almost all areas of organizations (Smith and Vecchio, 1993) as it determines the approach of organizations and their employees towards customers, vendors, market and other stakeholders (Matin *et al.*, 2009).

The technology policy of an organization related to the innovation of products is influenced by organizational culture (Martín-de Castro *et al.*, 2011). Similarly, culture has been found to shape the KM strategies of organizations; thus, contributing to competitive advantage (Tseng, 2010).

Organizational culture also determines the strategic orientation of organizations and commitment to values that

enhance performance (Pinho *et al.*, 2014). The competitive BE, expectations of society and the requirements of customers shape the culture of organizations (Gordon, 1991). The probability of an organization attaining a competitive advantage is higher if it is able to increase its base of profitable customers through superior service quality (Murphy *et al.*, 2013). Organizations can achieve service excellence through their services, product design, business strategies, satisfied employees, senior management commitment and trust levels driven by a customer focussed culture (Shah *et al.*, 2006; Tsou and Cheng, 2018).

5.2.3 Customer service quality

Customer service quality has been found to contribute to competitive advantage in many industries (Bharadwaj *et al.*, 1993) and is influenced by technology (Siddiqui and Sharma, 2010) and organization culture (Laroche *et al.*, 2004). It also facilitates in ensuring compliance with regulations by maintaining a high quality of services (Joseph *et al.*, 2003). Customer service quality is considered as a feature that must be present in a services organization, without which it could face existential difficulties (Yee *et al.*, 2010). The substantive amount of research studies on customer service quality indicates its importance for an organization and the necessity to ensure that organizations excel in it.

The seminal paper of Parasuraman *et al.* (1985) elaborated the different characteristics of "service quality" using a framework comprising of customer expectations of service and what was actually delivered by organizations. A zone of tolerance existed, which was the borderline of satisfactory services acceptable to the customer. Customer dissatisfaction arose from the gap that existed between the customer expectations and the actual service provision, which was framed as per organizations' perception of what the customer expected (Parasuraman *et al.*, 1985).

5.2.4 Product innovation

Product innovation has been linked to competitive advantage in organizations in various studies singly (Voss *et al.*, 2006) and in a combination with other factors such as KM (Xie *et al.*, 2016), technological advancements (Zhou and Wu, 2010), strategic orientation (Afuah, 2002; Akgün and Polat, 2021), strategic intent (Sanchez, 1995), customer orientation (Berggren and Nacher, 2001), regulatory environment (Sanchez and Mckinley, 1995), organizational culture and customer orientation (Deshpandé *et al.*, 1993) and market orientation (Algarni and Talib, 2014). Organizations can achieve a cost leadership or product differentiation strategy by adopting a sound product innovation strategy (Li and Atuahene-Gima, 2001).

Knowledge utilization has been found to have a mediating role between a product innovation strategy and the product innovation performance; thus, further strengthening the role of KM and product innovation to achieve competitive advantage (Zhang *et al.*, 2009). New product development must consider technological innovations that could help in developing value for the customer in the long run (Afuah, 2002; Badrinarayanan and Arnett, 2008). Organizational management, which encourages a culture of innovation (Beyene *et al.*, 2016) and is flexible in its strategy as per the BE, can perform better in

product innovation compared to its competitors (Sanchez, 1995).

Product innovation requires a favourable and supportive regulatory environment so that organizations might experiment and take risks without the fear of failure (Rajapathirana and Hui, 2018). A fair market structure enables organizations to develop transparent and competitive product innovation strategies (Kraft, 1989). Radical product innovations could potentially bring about disruptive market changes and produce a first-mover advantage through the creation of newer business avenues and changing the nature of competition (Aboulnasr et al., 2008; Xie et al., 2021).

5.2.5 Technology policy

A critical part of the strategic intent of an organization is developing technology as a core competency of the organization (Burgelman and Grove, 1996). “Technology Policy” is a key element of an organization’s business strategy in the long term to encourage the implementation of new projects and stimulate innovations in services and products (Ettlie and Bridges, 1987). It also contributes to organizational strategy to develop customer service capabilities (Teece et al., 1997).

Technology adoption and implementation have been found to have a great influence on organizational work processes (Basant, 1997). Organizations must thus develop a culture of treating technology and associated costs as a cost that can generate returns in the long term (Bharadwaj et al., 1999). Investments in IT and its associated returns for an organization have been considered important in the strategy formulation process (Chari et al., 2008).

“Technology Policy” would be defined by the nature of business, kind of transactions and the extent to which automation is desired by organizations (Collier, 1985). Innovation in organizations is facilitated by a vibrant technology policy (Lefebvre et al., 1997). The BE, the knowledge of the employees related to technical aspects and organization structure determine the “technology policy” of an organization (Basant, 1997). The intensity of research and development practices in organizations depend on the technology policy (Katsoulacos and Ulph, 2000).

Technology policy is closely linked with any sound product innovation strategy as the latter cannot exist without the former in a market where digital and electronic initiatives are appreciated by the customer (Katsoulacos and Ulph, 2000).

6. Future research agenda – extracting shared value from resource-based view and industrial organization

The preceding discussion yielded ground for a dialogue in the diversity between the two theoretical perspectives of RBV and IO. It is evident that the BE of organizations and their internal capabilities would have an interplay amongst themselves and produce a combined effect on the competitive positioning of organizations (Atkinson et al., 2020). Using internal capabilities to respond to environmental changes would be the natural instinct of organizational response systems to competition (Volberda, 1996). This also entails that the same set of capabilities would not be advantageous in different challenges presented by the BE (Jaakkola et al., 2016;

Pavlou and El Sawy, 2011). Thus, resorting to the value offered by a single theoretical perspective would soften the strategic arsenal of organizations. Evaluating the BE for opportunities and combining them with the maturity level of internal capabilities would equip organizations with a more poised competitive positioning.

6.1 Research propositions

The methodological diversity used in this study enabled the formulation of key research propositions which could stimulate future research based on shared value between RBV and IO:

6.1.1 Matching firm resources and life cycle

The notion of competitive advantage exists at all stages of the lifecycle of an organization (Princ and Cater, 2016). However, the nature of the advantage varies across the lifecycle (Miles et al., 1993). Lei and Slocum (2005) advocated that organizations need to develop their competencies depending on the lifecycle stages of the industry, which they categorized as “Fast Growth”, “Wild, Wild West”, “Steady Evolution” and “Creative Destruction”. Competitive strategies differ across the growth, maturity and decline stages of the industry life cycle (Karniouchina et al., 2013). Managers also need to adapt varied resource orchestration strategies depending on the maturity level of organizations (Sirmon et al., 2011). Managerial priorities differ based on the life cycle of organizations (Smith et al., 1985). It is important that organizations are able to sustain competitive advantages across the life cycle of organizations and possess the ability to implement strategies depending on the stage of the life cycle that they are in (Phelps et al., 2007).

Proposition 1. Firms need to match resource deployment depending on the lifecycle stage of the firm to adapt to the external business environment.

6.1.2 Managing uncertainty with emerging technologies

Competitive advantage deals with resource orchestration in an environment of uncertainty. The application of emerging technologies in business strategy requires firms to predict uncertainty and manage firm resources. RBV entails that competitive advantage is derived from resources owned by the firm or from the BE (Qaiyum and Wang, 2018). Industrial leadership has now incorporated the adoption of digital avenues and emerging technologies to sustain competitive advantage (Bonaccorsi et al., 2020; Varian, 2019). Strategic blending of emerging technologies in business strategy frameworks would require firms to manage both environmental uncertainty and resource deployment (Nayak et al., 2021a). Digital transformation of businesses based on emerging technologies presents a potentially productive area for future research spanning the OC–BE interface (Borges et al., 2021). Specific focus on the role of emerging technologies in the area of industrial marketing and the development of intelligent solutions could optimize scarce resource utilization for firms and put them to better use (Martinez-López and Casillas, 2013).

Proposition 2. Deployment of emerging technologies requires estimation of the extent of uncertainty to create value for the firm.

6.1.3 Servitization of business

Emerging business models are based on prioritizing service delivery over product positioning to create value for customers. The efforts of firms towards “servitization” converges with the objective of Industry 4.0 of value creation (Frank *et al.*, 2019). To enable this common purpose of value creation, firms need to engage in activities where the process of deployment of resources and capabilities is transparent to the customer (Coreynen *et al.*, 2017). However, in the real world, the process of servitization challenges the organizational boundaries of product focussed firms and provides an opportunity to exploit the RBV–IO interface (Ziaee Bigdeli *et al.*, 2021). Digital transformation also augments servitization in firms; thus, positioning emerging technologies as a critical resource (Kamalaldin *et al.*, 2021). Future research aimed at integrating multiple theoretical perspectives to develop a servitization framework is essential for firms to enhance customer value creation (Lafuente González and Szerb, 2021).

Proposition 3. Servitization of business entails disruption of organizational boundaries resulting in the dual disposition of RBV and IO perspectives.

6.1.4 Socially responsible business enterprises

Attainment of competitive advantage, the common goal of RBV and IO, has been traditionally conceptualized as an economic pursuit. However, with the recent emphasis on socially responsible firm behaviour and social business orientation, firms now endeavour to ascribe a social purpose to their business objectives (Nayak *et al.*, 2021b). While RBV attributes the term “resources” and “capabilities” to firm reserves to generate competitive advantage, social orientation requires humanization of these terms to create greater social good (Freeman *et al.*, 2021). This approach encourages firms to adopt strategic openness to share resources for the creation of social advantage (Alexy *et al.*, 2018). An assessment of the BE enables firms to deploy environment-friendly resources aimed at sustainable business practices and creating industry awareness of social responsibility (Tura *et al.*, 2019). Future research on social and natural RBV, along with sustainable IO perspectives, can synergize the aim of social responsibility and competitive advantage for firms (Fraj *et al.*, 2013; Heidhues and Kószegi, 2018; Tate and Bals, 2018).

Proposition 4. Creation of socially responsible business strategies requires extensions of RBV and IO to interact and create a framework of social strategic advantage.

It would be naive to believe that internal OC can be developed in isolation from the nuances of the BE (Lee and Klassen, 2016; Liu and Yang, 2019). A persuasive direction emerged for an integrated view of RBV and IO arising from the cues in past studies, which indicated an interdependence between the two theories. Table 4 presents an overview of the theoretical interdependence, further bolstering the need for theoretical integration. Contrasted with Table 1, which presented the divergent approaches between RBV and IO, Table 4 presents the convergent approach which emerged from the bibliometric analysis and literature review.

Attempting theoretical integration requires some degree of commonality between the theoretical perspectives (Mayer and Sparrowe, 2013). Both the RBV and IO aim at exploring resources for superior organizational performance, the only difference being the source of exploration (Lado *et al.*, 1992). While both perspectives intend to isolate sources of competitive advantage, the IO circumvents the idiosyncratic OC and adopts an outward view (Audretsch, 2018). Interestingly, the RBV operates on a similar canvas of improving organizational performance but takes an inward view (Babelyte-Labanauske and Kriauciunas, 2018). Connecting the intellectual boundaries of these theoretical perspectives would facilitate better comprehension of the processes and outcomes in organizations (Chen *et al.*, 2021).

The directional consensus of RBV and IO is characterized by the common objective that the scholars advocating these perspectives seek to address. Figure 13 depicts a convergence framework connecting the intellectual boundaries of both theories to position RBV and IO as complementary theories. This framework presents a visual integration of the inside-out and outside-in typology, allowing organizations to use the strengths of both theoretical perspectives. This approach to strategy formulation would ensure that organizations frame business strategies in a more informed context that considers environmental turbulence as well as internal resource heterogeneity (Asseraf and Shoham, 2019).

7. Conclusion

The significance of RBV and IO as theories governing the concept of competitive advantage has been outlined in this study. Competition in business is necessary to stimulate the process of innovation and generate novel solutions to complex issues (Gibson *et al.*, 2021). RBV provides a wide canvas for firms to configure new resources matching the BE (Qaiyum and Wang, 2018). Also, IO has been instrumental in the propagation of social welfare policy to counter monopolistic competitive policies (Neumann, 1988). This study contributed to the theoretical, managerial and social aspects of competitive advantage in firms.

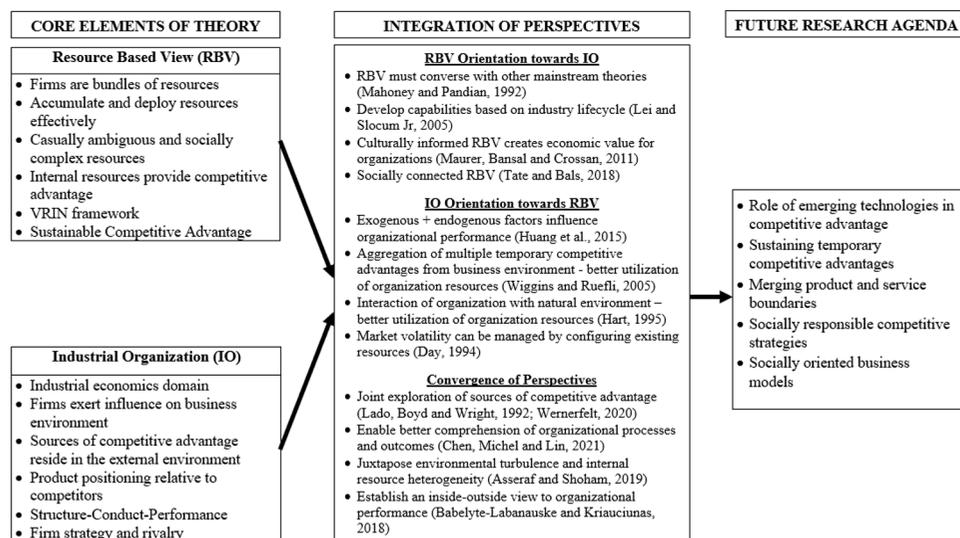
From a theoretical perspective, the methodological diversity used in this study combined a theoretical review, bibliometric analysis and comprehensive literature review. This diversity provides credence to the propositions formulated for further research (Paniagua *et al.*, 2018). Also, the convergence framework proposed in the study is based on a simultaneous examination of the RBV–IO and OC–BE dyads. The framework augments the prospects available to firms to examine the BE and internal capabilities using an integrated theoretical paradigm (Durand *et al.*, 2017). Most importantly, the research propositions lay down an ambitious agenda for future research, which also converges with the efforts to incorporate humanism in business (Pirson and Lawrence, 2010).

This study responded to the call for integration of the inward and outward-looking views of resources contributing to organizational performance (Babelyte-Labanauske and Kriauciunas, 2018). Consideration of RBV and IO as separate strands of thought would create a deficit in the holistic development of the concept of competitive advantage.

Table 4 Linkages between resource view and industrial organization context

RBV Factor	IO Factor	Source
Available strategic options	Depends on institutional environment	Dorobantu <i>et al.</i> , 2017; Ghezzi <i>et al.</i> , 2015
Aggregation of multiple temporary competitive advantages	Sourced from the business environment	Wiggins and Ruefli, 2005
Product development skills of managers and strategic decision-making process	Influenced by changes in the business environment	Tondolo and Bitencourt, 2014
Dynamic capabilities configuration	Sensing the environment and seizing the opportunities	Li and Liu, 2014
Internal organizational capabilities	Alignment with the business environment	Powell, 1992
Selection of internal resources	Driven by external environmental pressure	Dubey <i>et al.</i> , 2019
Level of technology to be used	Influenced by the competitive environment	Ray <i>et al.</i> , 2009
Nature of product innovation and the investment in R&D initiatives	Determined by the technological environment	Dugal and Roy, 1994; Tinn, 2010
Product innovation	Driven by favourable and supportive regulatory environment	Rajapathirana and Hui, 2018; Sanchez and Mckinley, 1995
Business strategy and strategic intent	Enhanced with knowledge about the business environment	Fang and Chen, 2016
Nature of manpower, skills and knowledge	Influenced by the competitive environment	Schweper and Ingram, 1994
Source: Author's conceptualization		

Figure 13 Convergence framework for resource-based view and industrial organization



By combining bibliometric analysis of theoretical interfaces with a comprehensive literature review of the core elements of the theories, this study sought to make a unique methodological contribution to the literature review process (Xu *et al.*, 2018). Also, the unique value of this study resides in the novel insights which emerged from the joint exploration of the theories, which have been traditionally positioned divergent from each other. For organizations, the benefits that emerge from an integrated perspective of RBV and IO outweigh the dispersed traditional consideration (Gellweiler, 2018).

The framework that emerged from this study would help business managers to better plan the utilization of internal resources to match external conditions towards a more effective

business strategy. Blending the constructive facets of RBV and IO would augment the strategic toolbox of managers. Managers will be able to plan resource allocation and utilization more efficiently if they are able to envisage challenges in the BE. RBV has also transcended into a social milieu where internal resources are not viewed in isolation but rather as an entity of the larger BE (Tate and Bals, 2018). Managers in organizations who are culturally more sensitive and aware while adhering to the RBV perspective are known to create economic value for organizations through a social connection (Maurer *et al.*, 2011; Wills-Johnson, 2008). The social RBV and natural RBV aspects could be adequately explored if the borders of RBV and IO are stretched further to study the areas of intersection (Tate and Bals, 2018).

For practicing managers, the outcome of this study provides organizations with shared insights from two major theories in strategic management – RBV and IO. Managers can use these insights to add value to the strategic plan of the organization from a social and technological perspective. Moreover, the methodological novelty also provides an additional technique for researchers to conduct integrated literature reviews.

Future research could examine the differences in measuring competitive advantage using a divergent versus convergent approach to RBV and IO. It is expected that an intersection of the theories would not only expand the horizons of strategic management but also encourage organizations to stretch their options related to competitive positioning. With an increased social pressure on organizations to develop socially responsible competitive strategies, a synchronized reliance upon internal capabilities and external realities would make a more socially conscious business ecosystem. Because both RBV and IO emerged as a response to the organizational quest for success, superior results can be achieved by a joint expedition to achieve desired objectives (Wernerfelt, 2020).

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Corresponding author

Bishwajit Nayak can be contacted at: bnayak0107@gmail.com