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# Big data-driven strategic orientation in international marketing

# Abstract

**Purpose** – Big data is one of the most demanding topics in contemporary marketing research. Despite its importance, the big data-based strategic orientation in international marketing is yet to be formed conceptually. Thus, the purpose of this study is to systematically review and propose a holistic framework on big data-based strategic orientation for firms in international markets to attain a sustained firm performance.

**Design/methodology/approach** – The study employed a systematic literature review to synthesize research rigorously. Initially, 2,242 articles were identified from the selective databases, and 45 papers were finally reported as most relevant to propose an integrative conceptual framework.

**Findings** – The findings of the systematic literature review revealed data-evolving and data-driven strategic orientations are essential for performing international marketing activities that contain three primary orientations such as (1) international digital platform orientation, (2) international market orientation, and (3) international innovation & entrepreneurial orientation. Eleven distinct sub-dimensions reflect these three primary orientations. These strategic orientations of international firms may lead to advanced analytics orientation to attain sustained firm performance by generating and capturing value from the marketplace.

**Research limitations/implications** – The study minimizes the literature gap by forming knowledge on big data-driven strategic orientation and framing a multidimensional framework for guiding managers for international business and international marketing activities. The current study was conducted by following only a systematic literature review exclusively in firms' overall big data orientation in international marketing. Future research may extend the domain by introducing firms' category wise systematic literature review.

**Originality/value** – The study has proposed a holistic conceptual framework for big datadriven strategic orientation in international marketing literature through a systematic review for the first time. It has also illuminated a future research agenda that raises questions for the scholars to develop or extend theory in this area or other related disciplines.

**Keywords**: Systematic literature review, Data-evolving, Data-driven, Strategic orientation, Big data, International marketing

**Paper type**: Literature Review

#### 1. Introduction

"The global market for Big Data estimated at US\$70.5 Billion in the year 2020, is projected to reach a revised size of US\$243.4 Billion by 2027, growing at a CAGR of 19.4% over the analysis period 2020-2027." (Research & Markets 2021)

In an increasingly borderless global economy, big data plays a crucial role to successfully reap business and marketing opportunities (Chierici, Mazzucchelli, Garcia-Perez, & Vrontis, 2019; Del Vecchio, Mele, Passiante, Vrontis, & Fanuli, 2020; Doh, Luthans, & Slocum, 2016; Gnizy, 2019; Özemre & Kabadurmus, 2020; Shamim, Zeng, Choksy, & Shariq, 2020). It has been witnessed that 91.6 percent of Fortune 1000 companies invested in Big Data associated mechanisms as this investment is required to stay both agile and competitive in the market place (Osborne, 2019). Recent publications in high impact journals have emphasized higher concentration on big data as it has an excellent prospect for value-generating through strategic orientation in business and marketing activities (Akhtar, Frynas, Mellahi, & Ullah, 2019; De Luca, Herhausen, Troilo, & Rossi, 2020; Dubey et al., 2020; Ghasemaghaei & Calic, 2019; Gnizy, 2019; Sivarajah, Irani, Gupta, & Mahroof, 2020). A firm's orientation is generally considered to identify, accumulate, and examine intelligence to create new knowledge (Adams, Freitas, & Fontana, 2019; Cacciolatti & Fearne, 2013). Accordingly, strategic orientation may be considered as a firm's crucial orientation components of the advanced innovative process (Adams et al., 2019) to engage customers (Rosado-Pinto & Loureiro, 2020) and gain an edge in marketing (Grandhi, Patwa, & Saleem, 2020).

In the last couple of decades, a significant number of articles have addressed the issue of strategic orientation both explicitly and implicitly in the international business context on numerous themes such as export success (Sørensen & Madsen, 2012; Wood & Robertson, 1997), subsidiary knowledge management (Griffith, Kiessling, & Dabic, 2012), choice of entry mode (Efrat & Shoham, 2013), and business performance (Cadogan, 2012; Deshpande, Grinstein, Kim, & Ofek, 2013; Laukkanen, Nagy, Hirvonen, Reijonen, & Pasanen, 2013).

Most notably, the international marketing discipline lacks a systematic discussion of how international business data evolve and drive the strategic orientation and how these could affect firms' performance, particularly in the global marketing context. Gnizy (2019) recently researched big data and strategy in an international firm and marketing context. Therefore, now we know far in this context more than ever before. However, the big-data based strategic orientation and its impact on the international marketing context are still not conceptually formed, and that has been clearly stated in the limitation of several articles (e.g., Gnizy, 2019).

Moreover, numerous scholars suggested it is necessary to know the state of the art of any particular topic by incorporating the systematic literature review (Gaur & Kumar, 2018; Littell, Corcoran, & Pillai, 2008; Palmatier, Houston, & Hulland, 2018). The systematic review synthesizes and integrates the body of knowledge of the relevant high impact publications and guides for further future research that is crucial for the scientific process (Palmatier et al., 2018). This type of review can identify real facts by critically evaluating and synthesizing the subject's underlying knowledge in a robust, rigorous, transparent, and replicable way (Denyer & Tranfield, 2009; Littell et al., 2008; Vrontis & Christofi, 2019). Since the lack of systematic review in some particular business fields has been observed, extending the knowledge through a systematic review process in a specialized area in international business or international marketing context is highly relevant (Gaur & Kumar, 2018).

In response to this existing research gap, drawing on the resource-based view (RBV) (Barney, 1991), this systematic review connects the links between big data resources and its orientation from the strategic viewpoint, such as data evolving and data-driven orientation to attain firms' sustained international marketing performance. Hence, the main aim of the current study are 1) to review and analyze the existing research in the aspect of big data-

based strategic orientation in the international marketing context; 2) to synthesize the systematic literature review findings into an integrative framework, and 3) to provide future research directions as per the research knowledge gap.

The systematic literature review in the emerging topic of big data-driven strategic orientation within the international marketing context contributes to global business, management, and marketing research in several ways. Through a systematic review, this study connects the big data-based strategic orientation in international business and marketing literature for the first time. Second, it provides a holistic understanding of the topic's relationships and impacts in the firms' global context. Third, the study proposes a conceptual, integrative model that will likely guide practitioners to enhance their knowledge to extend the international market's firm performance by utilizing big-data-based strategic orientation. Fourth, the study offers future research directions by addressing the limitation in existing theories, methods, and overall knowledge gaps.

The remainder of the study reflects the following contexts. The second section introduces the significance of big data in the RBV spectrum. The third section draws the conceptual boundaries of the systematic literature review. The fourth section explains the systematic literature review methods by addressing planning and searching, screening and extraction, synthesis, and reporting. The next few sections propose an integrative conceptual framework and address the study's theoretical and practical contributions. Finally, the study concludes by addressing the research limitations and future research directions.

# 2. Significance of big data in the RBV spectrum

Big data are fundamental to the business environment's advanced transformation because it can provide insights about emerging trends by capturing information on product-service performance, customers' preferences, and feedback (Cappa, Oriani, Peruffo, & McCarthy, 2020). According to International Data Corporation's (IDC) projection, the global data sphere will grow from 33 zettabytes in 2018 to 175 zettabytes by 2025 (Coughlin, 2018). Approximately 30% of the global data will need real-time digital processing in 2025 (Seagate, 2021). 75% of the world's total population will be connected to digital data by 2025, where every 18 seconds, at least one data interaction will occur through each connected person (Coughlin, 2018; Seagate, 2021). Thus, academics and practitioners are involved in significant data-oriented research to transform the entire business process in a new competitive data-rich business world (Rahman, Hossain, Fattah, & Akter, 2020; Wamba, Akter, Edwards, Chopin, & Gnanzou, 2015).

Further, RBV has significantly applied as a theoretical base in big data research to enhance firm performance (Akter, Wamba, Gunasekaran, Dubey, & Childe, 2016; Wamba et al., 2017). We rely on the RBV of the firm as the theoretical base of this study because of its applicability across information management research (Melville, Kraemer, & Gurbaxani, 2004; Pavlou & El Sawy, 2006), marketing research (Day, 1994; Srivastava, Fahey, & Christensen, 2001), information technology and marketing-related resources and capabilities (Kozlenkova, Samaha, & Palmatier, 2014; Wade & Hulland, 2004), and strategy (Crook, Ketchen Jr, Combs, & Todd, 2008). RBV considers a firm's composed tangible and intangible resources that a firm uses to develop and implement strategies (Barney, 1991). Based on the RBV logic, we advance current research on big data-driven strategic orientation in international marketing.

#### 3. Conceptual boundaries

It is a common practice to set the research boundary while conducting a systematic literature review on a vast and increasingly expanding area (Palmatier et al., 2018; Vrontis & Christofi, 2019; Watson, Wilson, Smart, & Macdonald, 2018). We define the dynamics of big databased strategic orientation from the viewpoint of *data-evolving* and *data-driven* strategic orientation in the international market that examines: *a*) digital platform orientation to generate data and b) data-driven market orientation along with innovation & entrepreneurial orientation. This study includes digital platform orientation that produces data through transactional, communication, participative, and transboundary platforms (e.g., Xie, Wu, Xiao, & Hu, 2016) and directs for market orientation and entrepreneurial & innovation orientation (e.g., Gnizy, 2019; Trabucchi & Buganza, 2019). Although some studies considered knowledge management orientation and learning orientation in an international business and marketing context (Chansoo, Chang Hoon, & Azilah, 2017; David, Timothy, & Marina, 2012), we exclude these inherent themes as Knowledge is the acquisition and acceptance of facts that occur through the digital platform transactions (Xie et al., 2016). At the same time, intelligence points out to the implementation of the facts wisely and correctly (Tajeddini & Ratten, 2020; Xinming, Keith, & Igor, 2018). Numerous article shows attaining intelligence is learning and part of market orientation (Ghantous & Alnawas, 2020; Gounaris, Vassilikopoulou, & Chatzipanagiotou, 2010). Thus, we inherently considered the digital platform orientation, market orientation, and entrepreneurial & innovation orientation's contextual and mechanisms facts under the broader theme of data-evolving and data-driven strategic orientation dynamics. However, studies have taken a few attempts to review big data relevant orientation systematically in various disciplines (e.g., e-commerce), particularly in the past few years (e.g., Akter & Wamba, 2016; Bhimani, 2015; Grover, Chiang, Liang, & Zhang, 2018), none of the studies modelled this viewpoint in the international marketing or global business perspective. Thus, by offering a systematic literature review in this area, we will likely be able to understand the comprehensive view of big data-based strategic orientations significance and theoretical basis. The study of Palmatier et al. (2018) has acknowledged Watson et al. (2018)'s systematic review in the Journal of the Academy of Marketing Science article. The authors pointed it is a better approach to draw the cohesive conceptual framework first to establish the review's broader and/or inherent boundaries

(Palmatier et al., 2018). Thus, the following framework has been drawn initially to understand the data evolving and data-driven strategic orientation boundaries (See Figure 1).



Figure 1. Data evolving and data-driven strategic orientation's conceptual boundaries

# 4. Methodology

The systematic literature review (SLR) process thoroughly observes research papers by utilizing appropriate techniques at each step to identifying the specific inquiry (Littell et al., 2008). Tranfield, Denyer, and Smart (2003)'s benchmarking SLR process generated more than six thousand citations applied nine steps under three key themes: planning, collecting, and reporting the literature review. Similarly, Durach, Kembro, and Wieland (2017) introduced six stages of the SLR process, and Watson et al. (2018) applied three steps in the SLR process that covers several phases. By reviewing all the high-impact SLR processes (e.g., Christofi, Vrontis, & Cadogan, 2019; Christofi, Vrontis, Thrassou, & Shams, 2019; Leonidou, Christofi, 2019; Watson et al., 2018), in this study, we adopted three main stages (a) planning and searching, (b) screening and extraction, and (c) synthesis, and reporting that also represent several phases similar to Hossain, Akter, and Yanamandram (2020) study (See Figure 2).

#### 4.1 Planning and searching

A successful systematic review process starts by setting up a substantial research question at the beginning of the process (Nguyen, de Leeuw, & Dullaert, 2018). To formulate the research question, we initially searched randomly on research databases, reputed newspapers, multinational companies' blogs, and magazines to understand the scope of big data in international business and marketing. Afterwards, the research question's idea was formed based on the gaps revealed from the initial searching and discussions performed within the research team members regarding the initial gap's significance. Further, insightful discussions among us set the research question as, "What are the big data-based strategic orientations implications in the context of international marketing?"

Following the research question, we selected the search boundaries, search strings, and timeframe similar to the guideline of Dada (2018) and Wang and Chugh (2014). We closely reviewed all the major research databases and found emerald insight, , and ScienceDirect as the most prolific databases that contain all the major journals from the business and information management fields. Vrontis and Christofi (2019) also recommended these three databases for the systematic literature review in business studies. To identify the appropriate search strings relevant to the research questions, we followed the guidelines from Kauppi, Salmi, and You (2018) and Watson et al. (2018). Keywords were expressed with the Boolean OR Operator to perform a search string for the particular group, and Boolean AND Operator applied to develop combined search strings similar to Hossain et al. (2020) and Vrontis and Christofi (2019) studies. Thus, the systematic search formula used as ("big data" OR "data evolving" OR "data-driven") AND (global\* OR multinational\* OR international\*) AND ("Strategic orientation" OR "Strategic pathway") for searching in emerald insight. However, while searching in the EBSCOhost Business Source Complete, we had to add "OR Strategy" after "Strategic pathway" due to the system limitation. Thus the formula was ("big data" OR "data evolving" OR "data driven") AND (global\* OR multinational\* OR international\*) AND ("Strategic orientation" OR "Strategic pathway" OR Strategy). Further, ScienceDirect database does not accept asterisk\* in the format of Boolen operators searching. Thus, the



Figure 2. The systematic literature review process

In the screening and extraction stage, we excluded a total of 1893 articles from the initial pool of 2242 papers. At first, we excluded 1523 articles that include duplicate articles, conference proceedings, book parts, non-academic articles, and academic articles where the abstract and introduction do not reflect the study context. Afterwards, 370 articles were again excluded from the remaining 719 articles by scoring independently based on the full paper's logic and relevancy in our study context, similar to Watson et al. (2018) and Pittaway, Robertson, Munir, Denyer, and Neely (2004). Hence, a list of 349 articles was considered for checking the quality appraisal. We considered the Chartered Association of Business Schools (ABS)/Academic Journal Guide (AJG) ranking tier 3/4/4\* as high-quality journals similar to Vrontis and Christofi (2019). To ensure further quality, we also considered the Australian Business Deans Council (ABDC) ranking tier A/A\* benchmark. After reviewing 349 articles, we extracted 310 articles that did not match the quality benchmark of ABS/AJG and ABDC. Thus, a list of 39 articles was selected where all the articles fall into the quality threshold ABS 3/4/4\* and ABDC A/A\*. After carefully screening and reviewing all these 39 articles, we identified nine more relevant articles from the reference list. Out of these nine articles, six matches the quality benchmark. Therefore, a final list of 45 articles was considered for synthesis and reporting.

# 4.3 Synthesis and reporting

This section reports the 45 articles by portraying a descriptive analysis, theoretical base, and thematic analysis. The section also further synthesizes the findings by proposing an integrative framework in the context of big data-based strategic orientation in international marketing.

#### 4.3.1 Descriptive review of the articles

The year 2000 set as a lower boundary of searching, a final list of 45 articles' findings revealed the year 2000 contains only a relevant single empirical paper. Figure 3 shows, in the range of the year 2000 to 2020, empirical papers outperform theoretical papers in terms of the

number of publications in the study area. In total 67% (n=30) empirical papers and 33% (n=15) theoretical papers were selected. The year 2019 shows a growing number of articles (n=11); the year 2019 list includes nine empirical papers and two theoretical papers in the arena of big data, strategic orientation, and international marketing.

A majority of articles were published in international business, marketing, and management journals. Eight articles were selected from the *International Business Review*, followed by five from the *International Marketing Review*. A total of 45 articles were selected from 17 journal outlets. Out of these journals, seven articles were selected from ABS 4\* and ABDC A\* ranked journals. Eight articles were picked from ABS 4 and ABDC A/A\* ranked journals, and thirty articles were selected from ABS 3 and ABDC A/A\* ranked journals (See Table. I).



Figure 3. Article types and yearly frequency

Table I. List of journals included in the sample

Journal outlet	ABS ranking	ABDC ranking	No. of articles	Percent (%)
International Business Review	3	А	8	17.5
International Marketing Review	3	А	5	11
Journal of Business Research	3	А	4	8.5
Information & Management	3	A*	4	8.5
Journal of World Business	4	A*	4	8.5
Industrial Marketing Management	3	A*	4	8.5
Journal of International Marketing	3	А	2	4.5
British Journal of Management	4	А	2	4.5
Research Policy	4*	A*	2	4.5
Journal of Product Innovation Management	4	A*	2	4.5

Strategic Management Journal	4*	A*	2	4.5
Journal of International Business Studies	4*	A*	1	2.5
Technological Forecasting and Social Change	3	А	1	2.5
Technovation	3	А	1	2.5
Long Range Planning	3	А	1	2.5
Academy of Management Journal	4*	A*	1	2.5
Journal of the Academy of Marketing Science	4*	A*	1	2.5

It has been observed that 29% of the published articles (n=13) had one institutional affiliation, whereas most of the articles (n=32, 71%) had two or more institutional affiliations. 62% (n=28) of the published articles had three or more authors, and the percentage is comparatively higher than those articles written by one or two authors (n=17, 38%). 53% (n=24) of the published articles authors represent a single country (see Table. II).

1 2		
Authorship segments	No.	
Number of Authors		
One	6	
Two	11	
Three or more	28	

Table II. Authorship summary of reviewed articles

1 0		
Number of Authors		
One	6	13
Two	11	25
Three or more	28	62
Number of Institutions		
One	13	29
Two	15	33
Three or more	17	38
Number of Countries		
One	24	53
Two	13	29
Three or more	8	18

# 4.3.2 Thematic analysis of the literature

The study applied to six phases of thematic analysis by following Braun and Clarke (2006) and Hossain et al. (2020)'s guideline. In the first phase, we repeatedly read the 45 articles that were initially generated from the systematic review process about big data orientation, strategic orientation, and international marketing. We developed codes on 45 articles' inherent data in the second phase, representing the articles' main themes. The coding method has always been considered a vital analysis technique (Miles, Huberman, Huberman, & Huberman, 1994) to prepare meaningful groups from the data set (Tuckett, 2005). In this

Percent (%)

phase, we coded for market creation, proactiveness, innovativeness, risk management, intelligence generation, intelligence dissemination, response design, response functioning, transaction, communication, participative, and trans-boundary. In phase three, we identified four themes: innovative entrepreneurial orientation, market orientation, learning orientation, and platform orientation, representing all the codes. In step four, we reviewed the codes and themes again and identified that attaining intelligence code covered by learning and market orientation themes. The code of response design and response functioning together represent the responsiveness to intelligence. Hence, in phase five, we finally considered three themes: (1) International digital platform orientation is reflected by transaction, communication, participative, and transboundary, (2) International market orientation is reflected by transaction, communication, participative, and transboundary, (2) International market orientation is reflected by market creation, proactiveness, innovativeness, and risk management. In phase six, we report the findings' details and propose an integrative conceptual framework (Please see subsection 4.3.4).

# 4.3.3 Theory used in the extant literature

We identified the theories applied in the selected 45 articles. It has been observed that 23 articles explicitly mentioned the theoretical underpinning; thus, Table (III) excluded the papers that did not mention any theory at all. The reviews revealed a diverse group of theories. However, a significant number of articles used a resource-based view and dynamic capability.

References	Theories applied
iterenees	Theories upplied
Jantunen, Nummela,	Dynamic capability
Puumalainen, and Saarenketo	RBV
(2008)	
Zhou, Li, Zhou, and Su (2008)	
Yu and Zaheer (2010)	Process theory
Liu, Li, and Xue (2011)	Internationalization theory, agency theory, theory of corporate governance
Boyson (2014)	Cybernetics control theory

Table III. Theories applied in reviewed articles

Xie et al. (2016)	Service-dominant logic
Sedera, Lokuge, Grover, Sarker,	Resource-based theory
and Sarker (2016)	
Yang and Gabrielsson (2017)	Effectuation theory
Özcan, Mondragon, and	Ownership, location, internationalization (OLI) theory, institutional theory
Harindranath (2018)	
Acosta, Crespo, and Agudo	Dynamic capability, strategic management theory
(2018)	
Robinson and Mazzucato (2019)	Market failure theory
Dubey, Gunasekaran, Childe,	Institutional theory, resource-based view, organizational culture
Blome, and Papadopoulos (2019)	
Akhtar et al. (2019)	Resource-based view
Lin and Kunnathur (2019)	Dynamic capability
Kaur, Gupta, Singh, and Perano	Organizational information processing theory (OIPT)
(2019)	
Warner and Wäger (2019)	Dynamic capability
Alayo, Maseda, Iturralde, and	Upper echelon theory
Arzubiaga (2019)	
Gnizy (2019)	Knowledge-based view theory
Guo, Wang, Su, and Wang (2020)	Resource-based view, demand-side perspective
Suoniemi, Meyer-Waarden,	Resource-based view
Munzel, Zablah, and Straub	
(2020)	
Domurath, Coviello, Patzelt, and	Goal orientation theory
Ganal (2020)	
Buccieri, Javalgi, and Cavusgil	Resource-based view, dynamic capability
(2020)	
Svante, Gabriel Baffour, Ulf, and	Resource-based view
Ingemar (2020)	

# 4.3.4 Mapping findings in an integrative framework

Big data enhance firms' capability in marketing activities on the international market platform (Gnizy, 2019). A multinational or e-commerce firm can newly introduce or expand its marketing activities globally by attaining and deploying data in the marketplace. A good example is Netflix, which produces a large pool of data from consumers' behavioural patterns through their digital platform and uses those data to implement TV series across the globe successfully. The strategic orientation of Netflix's recommendation engine has been worked through big data and analytics to detect and suggest appropriate objects based on customers' preferences. International brands such as Zara, a large part of their success came due to big data-related strategic orientation (Sorescu, 2017). Despite the importance of big data-based strategic orientation in international business, there is scant attention to proposing an integrative conceptual model in this crucial area. This study contributes to this research area

by presenting a robust conceptual, integrative model through conducting a systematic review. Thematic analysis of the study has been identified three central themes of data evolving and data-driven strategic orientation in the international marketing aspect: (i) Digital platform orientation, (ii) Market orientation, and (iii) Innovation & Entrepreneurial orientation. This section has taken an attempt to report the findings on these orientation aspects and predict the orientations' impacts.

# i) International digital platform orientation

The rise of digital platforms allows international ventures to connect with global customers and restore any functions provided by trading intermediaries, which, in turn, expedites their internationalization (Jean, Kim, & Cavusgil, 2020; Karagouni, 2018). The digital platform is a platform based digital technological advancement (Cenamor, Parida, & Wincent, 2019; Warner & Wäger, 2019) that supports generating, collecting, and reviewing big data through transactional, communication, participative, and trans-boundary features (Xie et al., 2016). A transactional feature within the digital platform supports customers buying or ordering, enabling firms to collect a big chunk of customers' transactional data. Communication feature within the digital platform provides access to a group of customers within the system to communicate regarding a product's price or inherent qualities or characteristics. The platform enables the firm to collect communication data. Usually, firms that want to attract customers with different themes to accumulate big data generally develop the digital platform's communication feature. Moreover, the digital platforms' participative features allow customers to participate and share their opinions in product and service development that enable firms to grab more insightful data. Further, transboundary assists firms in obtaining further knowledge given by customers who develop contacts over several ecosystems. The

development of digital platforms has been contributed considerable benefits to international ventures (Jean et al., 2020). Therefore, the digital platform orientation for international firms has been considered a firm's data-evolving strategic orientation that will guide the implementation of the marketing activities in international marketing settings.

Proposition 1 Big data-driven digital platform orientation in international marketing enhances sustained international growth/performance.

#### ii) International market orientation

In international business and marketing activities, data on both market and customers generally not available in a firm's existing data set unless the firm introduces a digital platform upfront. Still, a firm can introduce data-driven market orientation as data are often available in big data sources such as videos, web blogs, articles, and reports (George, Osinga, Lavie, & Scott, 2016). The meaningful offerings for customers are possible to introduce in the marketplace if a firm can generate customer insights from big data and create superior value for the ultimate customers (Cortez & Johnston, 2017). Big data help to identify both chosen items and the customers' unchosen alternatives and provide a snapshot of the customers' behaviour for further decision making in the international market place (Gnizy, 2019). Overall, market orientation is an inimitable and non-substitutable resource that can ensure sustained competitive advantage in developing and developed nations (He & Wei, 2011; Zhou et al., 2008). International enterprises can acquire and disseminate relevant information to sense the market by effectively deploying market orientation (Yayla, Yeniyurt, Uslay, & Cavusgil, 2018). In this aspect, big data plays a vital role in generating, disseminating, and responsive to intelligence for creating superior value to the customers (Gnizy, 2019; Slater & Narver, 2000). It has been observed from the systematic review that intelligence generation is the firm's ability to generating information on industry and customers from the international market. Intelligence dissemination integrates all the relevant information that guides to be responsive to the object called responsiveness to intelligence (e.g., responding to competitors' price changes and customers' current needs by introducing an appropriate offering). The big data-oriented advantages drive international market orientation that allows firms to be more market-oriented by introducing appropriate offerings for customers that generate value in global marketing operations (Gnizy, 2019).

# *Proposition 2 Big data-driven international market orientation enhances sustained international growth/performance.*

#### iii) International innovation and entrepreneurial orientation

An international firm with innovation & entrepreneurial orientation meets the customers' current needs and innovatively takes the risk to reach future demand (Gnizy, 2019). Advancing big data-driven direction lets the firm to set its strategic position before the new trends are fully apparent in the market (Watson IV, Weaven, Perkins, Sardana, & Palmatier, 2018). Big data helps the entrepreneurial firm to understand the future market offering by analyzing the foreign customers' profiles, preferences, and characteristics (Cortez & Johnston, 2017). Overall, it helps to understand the market's inherent latent demand that brings the entrepreneurial themes into reality. Extant literature on international innovation & entrepreneurial orientation was conceptualized by addressing market creation, proactiveness, innovativeness, and risk management. Big data-driven strategic orientation helps the entrepreneurial firm in creating a new market by seeking new opportunities. Firms can get proactiveness by addressing the customer's future needs in the international market place. This data-driven orientation also allows the firm to become innovative by engaging new ideas and creative processes in the market place (Acosta et al., 2018; Trabucchi & Buganza, 2019). Big data-driven orientation also helps the firm create and capture the value and manage the marketplace's risk by tracking all the objects' movement (Kirtley & O'Mahony, 2020). Overall, big data produces knowledge that enables international firms to admit possibilities,

evaluate the risk through investigating the predictive anticipation of trends or events, and allow them to pick the most suitable amongst them.

*Proposition 3 Big data-driven international innovation & entrepreneurial orientation enhances sustained international growth/performance.* 



# Figure 4. Integrative conceptual framework

Overall, a firm can introduce multiple strategic orientations at a time, which depends on its appropriate organizational resources and capability (John, 2012). Data-driven digital platform orientation, market orientation, and innovation & entrepreneurial orientation may guide a firm to deploy further advanced analytics orientation to achieve sustained firm performance in the international marketplace. A few studies suggest that big data influences international firms' performance directly or indirectly through strategic orientation (Gnizy, 2019). This study conceptualizes that big data-evolving and big data-driven strategic orientation will likely be able to form firms' capability in advanced analytics orientation in the international market. It will likely perform micro-segmentation, churn prediction, re-marketing, sales

forecasting, and dynamic pricing, and so on. This orientation will also likely enhance firms' return on investment and improve firms' growth and performance in the international market place (See Figure 4).

#### 5. Theoretical and practical contributions

The study's motivation is to advance knowledge by incorporating the extant literature to conceptualize the big data-based strategic orientation implications in the international marketing context. Therefore, the study proposes several theoretical and practical contributions by addressing the research question.

First, this study contributes to the resource-based view, as in RBV knowledge being considered as one of the most significant resources. Still, the challenge is to transform this knowledge in the different business aspects (Hossain et al., 2020), where this research shows the strategic pathway in the big data spectrum and international context.

Second, our research findings can extend other theories introduced earlier in the international marketing paradigm, such as institutional-based view (IBV) (Ahmed & Brennan, 2019; Elango & Pangarkar, 2020) and organizational learning theory (OLT) (Choi, Jean, & Kim, 2019; İpek, 2019). The IBV highlights the institutional environment's importance and prescribes that institutional forces shape firms' strategic orientation and manage their performance (Chen, Sousa, & He, 2016; Dacin, Goodstein, & Scott, 2002). OLT suggests organizations' cognitive entities are essential, which learn through interacting with the environment within a firm's international orientation process (İpek, 2019). Although these theories discuss strategic orientation in numerous cases, they lack explanation about dimensions and sub-dimensions to set up the strategic orientation in the demanding big data-driven international business environment. Therefore, this study contributes to the theories by combining the three central themes (i) digital platform orientation, (ii) market orientation, and

(iii) innovation & entrepreneurial orientation in the international marketing aspect and big data-driven strategic orientation perspective.

Third, this study reviews all the underlying factors of strategic orientation in the presence of big data and portrays all the relevant theoretical underpin from the existing literature to understand the inherent knowledge. The motivation to practice the efficient literature auditing technique by addressing the bases is the composition of concrete evidence underpinnings upon which potential future researchers can be guided (Christofi, Leonidou, & Vrontis, 2017).

Fourth, this research not just uncovers the power of big data that evolves and drives strategic orientations but also contributes to the thought on the advancing utilization of intelligence. Thus, this study expands knowledge of the traditional process of intelligence and structures.

Fifth, the study also proposes the outcome of the firms' big data-based strategic orientation, where a firm may utilize advanced analytics orientation distinction in fulfilling the international marketing activities under the theoretical base. Innovative firms' in the big data spectrum use data and analytics to innovate incrementally for existing and new offerings and accelerate business models (Ransbotham & Kiron, 2017). Therefore, practically, the firm will likely be able to generate global growth and accelerate international sustained competitive performance.

Sixth, this study also further contributes to practice; managers will likely be able to understand the mechanisms that facilitate the usage of big data and generate actionable insights. Such understanding is a basic need since it guides practitioners about where to start for the early execution impacts of big data use in the international marketing strategic orientation context. Managers can also use these insights to fulfil the basic fundamental needs of customers across the globe to address many grand challenges, including poverty, hunger, health, education, gender equality, clean water and energy, responsible production and consumption etc. (Chandy, Hassan and Mukherji 2017; Gandomi and Haider 2015).

# 6. Limitations and directions for future research

This study also has several limitations, like any other systematic review papers. The review of big data-based strategic orientation in the international marketing aspect was multidisciplinary; we have considered the business, marketing, information management articles and examined articles' breadth in general instead of depth like Vrontis and Christofi (2019). This study has considered strategic orientation in the big data spectrum in the international marketing context in-general rather than focusing on a specific strategy based on firm size or nature of business and particular capabilities. Despite the systematic searching in academic databases and careful screening process, there might be a possibility of missing any relevant papers due to a large number of papers' initial pool. According to Bakker (2010), it might not be prudent or required to consider every relevant published article for a single study.

References	Proposed future research agendas
Jantunen et al. (2008)	Understand how corporate growth objectives reflect through a firm's
	strategic orientation and investigate how these orientations differ or
	similar to born global firms.
Liu et al. (2011)	Examine the role of governance mechanisms in strategic orientations
	toward internationalization progress.
Xie et al. (2016)	Expand the more cues of big data evolving digital platforms other than
	the existing nods.
Yang and Gabrielsson (2017)	Examine the strategic formation of multinational companies in an entrepreneurial marketing context.
He, Brouthers, and Filatotchev	Conduct a longitudinal study to explore how a firm can attain value
(2018)	from the international market through market orientation capability.
Acosta et al. (2018)	Analyze the role of different policy as a mediator influencing strategic
	orientations and dynamic capabilities on the foreign market performance
	aspect.
Gnizy (2019)	Expand big data and strategic relationships in various orientations such
	as sales, technology, and production in the international market aspect.
Kollmann, Stöckmann, Niemand,	Investigate distinct types of entrepreneurial orientation's association
Hensellek, and de Cruppe (2019)	other than risk-taking, innovativeness, proactiveness.
Alayo et al. (2019)	Conduct a longitudinal investigation on top management teams'
	structure and the impact of entrepreneurial orientation in
	internationalization over time.
D'Angelo and Presutti (2019)	Examine the impact of entrepreneurial orientation and the length of time
	utilized in a managerial or entrepreneurial role.
Akhtar et al. (2019)	Understand how to focus on unstructured data to reap automated
	decisions and formulate strategies by grabbing evidence-based

	Table	IV.	Future	research	directions	from	the	review	of	extant	literatu	re
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	opportunities.
Lin and Kunnathur (2019)	Employ multiple research methods to introduce strategic orientation in
	the big data spectrum.
Guo et al. (2020)	Examine empirically how to balance technology orientation and
	customer-focused market orientation to attain sustained performance.
Reibenspiess, Drechsler,	Explore the different designed platform for digital entrepreneurship to
Eckhardt, and Wagner (2020)	advance knowledge in the data-driven business aspect.

The current study has been proposed an integrative framework that contains firms' data evolving and data driven strategic orientation and consequences in international market performance. Future studies can take an attempt to test this framework empirically by generating instruments of model antecedents and consequence variables. Following the future research suggestions of Alayo et al. (2019), Lin and Kunnathur (2019), in the future, this study can utilize longitudinal or multiple cross-sectional surveys approaches for rigorous empirical investigation. Besides, future research may consider the data privacy and security issues in the digital platform orientation as other contemporary research given importance on this aspect (Akter & Wamba, 2016; Hossain et al., 2020). In addition to these, Table (IV) exhibits agendas for future research that have been identified from our robust review process on relevant literature.

#### 7. Conclusion

With the rapid growth of big data and the expansion of digital advancement in international marketing activities, an increasing number of firms are trying to adapt big data-based strategic orientation for staying competitive in the global market. In spite of the fact, there is a lack of explicit directions on this aspect. This research pinpoints the issue by deploying a systematic literature review and connecting the dotted lines by synthesizing the extant articles in the aspect of big data and strategic orientation in the international marketing context. The study has proposed a big-data based strategic orientation framework to advance analytics orientation and enhance firms' growth in the global market. The review findings also portrayed the agendas for future research in this particular aspect. Overall, the study has

accumulated and manifested knowledge in this specific research domain and will likely inspire future researchers for further investigation.

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# Appendix 1

The sketch of database searching results using Boolean OR Operator and Boolean AND Operator.

("big data" OR "data evolving" OR "data driven") AND (global* OR multinational* OR intern	hational*) AND ("Strategic Orient	ation" OR "Strateg Q Advanced a
Home / Search Results		
Search Results 1-10 of over 1000	PER PAGE 10 20 50	Sorted by relevance
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Arcice Publication date: 2 October 2017 Big data-driven business model innovation by traditional industries in the Chinese economy Sarah Cheah and Shenghui Wang This study aims to construct mechanisms of big data-driven business model innovation from the market, strategic and economic perspectives and core logic of business model View summary and detail •	HTML POF (522 KS) P Constant Con	Only content I have access to     Only content I have access      Year      From 2000 until 2020 X      Content type      Artice (#86)      Book part (10)      Case study (11)
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Antick Publication date 13/4/2019 Motivation to use big data and big data analytics in external auditing Lina Dagliene and Lina Koviene This paper aims to explore organisational intentions to use Big Data and Big Data Analytics (BDA) in external auditing. This study conceptualises different contingent	HTML POP (205 KB) POP (205 KB) POP (205 KB) Report A formation	

