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Sushant Kumar Vishnoi, Teena Bagga, Naveen Virmani

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The essence of marketing intelligence research highlights from 1962 to 2021

Sushant Kumar Vishnoi

Institute of Management Studies (IMS),
Ghaziabad, Uttar Pradesh-201009, India
Email: sushant.vishnoi@imgzb.ac.in

Teena Bagga

Amity University,
Noida, Uttar Pradesh-201301, India
Email: teena.bagga@gmail.com

Naveen Virmani*

Institute of Management Studies (IMS),
Ghaziabad, Uttar Pradesh-201009, India
Email: naveen.virmani@imgzb.ac.in

*Corresponding author

Abstract: This study aims to map the development of marketing intelligence (MI) articles published, citations, and themes from 1962–2021, a total of 59 years. This research study classifies and reviews research articles published in the area of marketing intelligence. This article aims to systematically explore and analyse prevailing associated researching trends and themes in the domain of marketing intelligence. For this literature review, various research databases like Proquest, EBSCO host, Web of Science, Scopus, and Science Direct, were identified, publishing research in the chosen area of marketing intelligence. The study also provides an analysis of marketing intelligence related publications across different periods. The study identified 127 papers published in various publishing databases, distributed across 56 different journals. These articles were published across 28 countries, representing five continents, from 1962 to 2021.

Keywords: classification; literature review; market intelligence; marketing intelligence; literature review; Scopus database.

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Biographical notes: Sushant Kumar Vishnoi is an avid academician and passionate researcher with over nine years of experience. His areas of specialisation are marketing analytics, entrepreneurship, and sales and distribution management. He has published around 17 research papers in various national and international journals of repute. Besides, he has also authored four book chapter. His research interests are centred on marketing

intelligence, Marketing 4.0 and 5.0, Branding 4.0, salesforce intelligence, and metaverse. In addition, he is an active editorial member and reviewer of reputed national and international journals.

Teena Bagga is an instructor and researcher with over 20 years of experience. Since 2001, she has been a Professor at Amity Business School, Amity University, Noida. Her areas of specialisation are information systems, business analytics and project management. She has published around 80 research papers in various national and international journals and has written case studies, which are included in the case centre, UK. Her research interests are e-business, digital marketing, education quality, strategy, information systems, e-governance, smart applications, and business analytics. She has organised several guest lectures, seminars and conferences and delivered keynote addresses at various platforms. In addition, she is an active Editorial board member and Reviewer of reputed national and international journals.

Naveen Virmani is working as an Associate Professor at IMS Ghaziabad. He has published numerous research papers in leading international journals. His research interest includes Industry 4.0, marketing intelligence, circular economy, circular supply chain management, lean manufacturing, and TQM.

1 Introduction

Marketing is an evergreen field, and the global growth of the marketing industry is exponential (Paul et al., 2021). Marketers worldwide are incorporating information-sponsored intelligence as a developmental strategy for organisational decision-making and strategic marketing (Rethlefsen et al., 2021). So what? An important question arises here how can organisations apply marketing intelligence (MI) for maximum impact? MI enables business transformations by syncing traditional information sources like customers, competitors, and employees with state-of-the-art and diversified counterparts like social media, microblogs, and virtual communities (Donthu et al., 2021). As these intelligent marketing practices get embedded into a company's DNA, it shields organisations from micro and macro environment business fluctuations and warrants a swift response to evolving customer needs, changing competitor dynamics, and increasing information epicentres (Lim et al., 2022). Is another question worth mentioning here is why MI? Since the volume and variety of generated data volume are relatively high, marketers employ intelligent agent technologies like big data analytics, internet of things (IoT), social media analytics, and artificial intelligence (AI) to analyse this information (Mukherjee et al., 2022). Upon analysis, this generated information gets transformed into actionable intelligence and used by business organisations for business planning and competitive advantage. Complementing its capabilities, MI has wide applications in construction, tourism, SMEs, banking, microfinance, manufacturing, pharmaceutical, retailing, sports, software, telecommunications, e-commerce, food processing, and many more. In hindsight, being positioned at the centre of scaled business operations, MI has attracted renowned researchers, practitioners, and policymakers from methodologically diverse and multidisciplinary perspectives for shaping subject development. Henceforth, this study

postulates to identify and analyse the evolution of MI as a subject and to address the possible literature and knowledge gaps that need exploration through further research.

Upon analysis of MI literature, it is observed that a review specific to definitions of MI was carried out by Inha and Bohlin (2017). Therefore, to move forward, the author analyses the previously published literature review and identifies the literature processes or steps (Pickering and Byrne, 2014).

1.1 Classification and analysis

The researcher systematically reviewed MI literature by classifying articles based on different emerging themes and trends. Firstly, the study organised the entire set of identified articles based on year, journal, and publication database. Secondly, the literature was divided into three periods to understand current patterns and emerging MI trends. Thirdly, reviewed articles were segregated based on key research areas (KRA's) identified from the analysis of MI literature. Upon investigation, the authors identified eight themes: strategic, tactical, and operational; performance; predictors and consequences; salesforce; intelligent systems and technologies; environment; concept and overview; and customers. Fourthly, MI literature has also been classified based on region-wise and continent-wide publications to understand global acceptance and development of MI as a relevant business domain. Overall, this research study is conceptualised to serve the dual objective of updating or informing subject experts, researchers, academicians, corporates, and field enthusiasts or practitioners about the state-of-the-art development in the field of MI and simultaneously providing direction for future studies.

2 Conceptual background

MI was introduced to the marketing literature by Kelley (1965) to establish an information department across business organisations and discover the newest avenues and information flow. Marketing information management is associated with efficient decision making (Kelley, 1968). Some of the most published notable and most citable work in the area of MI are Dishman and Calof (2008), Jaworski and Kohli (1993), Kohli et al. (1993), Lafferty and Hult (2001), Maltz and Kohli (1996) and Song and Thieme (2019). These citations are on research areas related to strategy, predictors and consequences, performance and environment. Initially, MI envisages the existing and additional marketing information sources for marketers and organisations. However, synthesising these different marketing information sources and applying them for business planning and decision making was of strategic importance companies should search for answers. Till 2000, MI was an instrument at the disposal of 'marketers' for 'marketers'. From 2001 onwards, with the advent of consumerism symbolising 'customer as the only king', research studies started inclined to make customers the centric souls of this marketing information landscape and how to involve them in relationship management, building satisfaction loyalty quotients. Here, MI was channelled by 'marketers' to enrich 'customers'. Finally, since 2011, MI has been showcased as an ecosystem comprising customers, competitors, intelligent agent technologies like big data

analytics, artificial intelligence, and the internet of things to identify market opportunities and commit resources.

In the present era, MI ‘marketers’ apply the internet (social media) and intelligent agent technologies (big data analytics, social media analytics) to delight ‘customers’ through customised offerings. Contemporary literature on MI is more inclined to use Internet sources to generate customer interest and design products. Companies presently were analysing customer engagements and interactions on social media sites (Atanassova and Clark, 2015; Groothuis, 2019), blogs/weblogs/microblogging websites (Glance et al., 2005; Baumgartner et al., 2009; Li and Li, 2013) and virtual communities (Maclaran and Catterall, 2002) to gain an understanding of their requirements and buying behaviour. The authors then applied this information to design and customise product portfolios and service deliverables for different customers, markets, and regions. More research was required in customer-related MI studies as it holds significance in the research field’s future progression. Furthermore, academia-industry collaborations, corporate reviews, and sponsored research are also required to sustain and innovate the subject of MI.

MI-related articles have an average publication record of 35 items each year, and the number of citations on MI has grown substantially since its first publication. Although contributions to MI come from around the globe, they most often were affiliated with the USA, the UK, Taiwan and Australia. Bibliographic coupling of documents reveals that the primary focus has been on strategic, tactical, and operational; performance; predictors and consequences; salesforce; intelligent systems and technologies; environment; general overview; customer relationships; satisfaction and loyalty. As this study conceptualised around the manual screening of publications from the Scopus databases, there is every human error chance to follow. Two types of error may exist, i.e., relevant studies either excluded or irrelevant studies included from the search. Furthermore, articles added to Scopus databases after November 2020 were willingly excluded, as analysis of the present study was ongoing and adding more articles would have expanded the analysis and publication process. This study holds prominence as the first-hand research on literature review in MI. This study will add value to the subject literature as it presents a comprehensive, systematic, coherent, and logical aggregation of Scopus indexed research articles on MI.

2.1 Theoretical background

Upon examining the literature on MI, 21 definitions were identified as proposed by different authors. For the present study, the most complete eight definitions were chosen as tabulated in Table 1.

Upon analysis of the above-mentioned definitions of MI, two broad author perspectives, i.e., strategic and market perspectives, were discovered. The classification of definition based on a strategic perspective is dependent on authors using keywords like ‘strategic, tactical’ and ‘operational decision making’ in the body or text of their definitions and also simultaneously referring to the applications of MI for decision making (Jandaghi et al., 2011, p. 2), market planning (Tan and Ahmed, 1999, p. 298), strategic planning (Huster, 2005, p. 13), and strategic marketing (Jamil, 2013, p. 463). These dimensions of the author’s definitions were attributed to the strategic aspects of the MI literature, addressing the strategic perspective dimensions of the author’s definitions.

Table 1 Author perspectives and definitions of MI

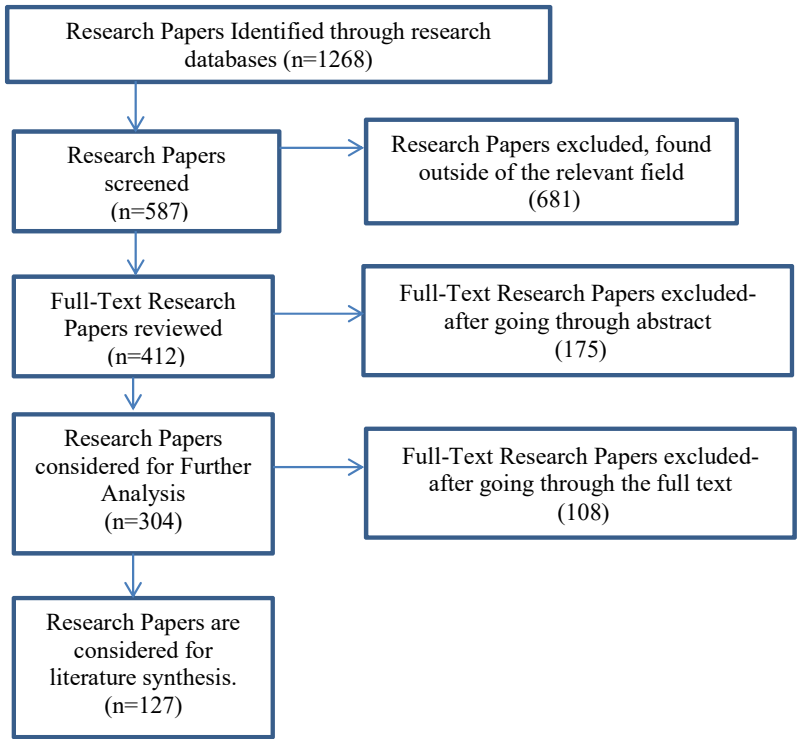
<i>Perspective</i>	<i>Definition</i>	<i>Source</i>
Market perspective	“information about customer needs, preferences, attitudes, and behaviors, plus potential changes in the business environment that may affect buyers.”	Cornish (1997a, p.453; 1997b)
Strategic perspective	“as a continuing and interacting structure of people, equipment, and procedures to gather, sort, analyze and distribute pertinent, timely and accurate information for use by marketing decision-makers to improve their marketing planning, implementation, and control.”	Tan and Ahmed (1999, p.298)
Strategic perspective	“ability to fully understand, analyze, and assess the internal and external environment associated with customers, competitors, markets, industry, and use the acquired knowledge for long- and short-term strategic planning.”	Huster (2005, p.13)
Market perspective	“process of determining key intelligence areas and then acquiring and analyzing, supplying, and applying information (both qualitative and quantitative) about the external market environment to understand market forces (including products and customers).”	Muller (2006, p.2)
Strategic perspective	“a systematic, targeted, timely, and ethical effort to collect, synthesize, and analyze competition, markets, and the external environment to produce actionable insights for decision-makers.”	Fleisher (2008, p.853)
Market perspective	“ability to fully understand, analyze, and assess the internal and external environment related to a company’s customers, competitors, markets, and industry to enhance the tactical and strategic decision-making process.”	Jandaghi et al. (2011, p.2)
Strategic perspective	“acyclic, continuous process designed to produce knowledge from raw and dispersed data and information continuously, added with the notion of how to apply this knowledge for strategic marketing management for a business sector.”	Jamil (2013, p.463)
Strategic perspective	“a continuous process of understanding, analyzing, and assessing a firm’s internal and external environments associated with customers, competitors, markets and then using the acquired information and knowledge to support the firm’s marketing-related decisions.”	Alamsyah and Saviera (2017, p.1)

Alternatively, the rationale of dividing and referring to MI definitions from a market perspective is centred around MI adoption within organisations based on analysing and assessing both qualitative and quantitative information [Muller, (2006), p.2] about firms’ micro and macro environment [Fleisher, (2008), p.853]. Customers, competitors, and suppliers are the key stakeholders of an organisation’s business environment [Cornish, (1997a), p.453, 1997b] and customer environment [Alamsyah and Saviera, (2017), p.1]. Therefore, these author definitions address the market perspective of marketing.

2.2 Methodology

A literature review integrates what is known about a subject and identifies possible gaps in knowledge or literature on any topic. It also demonstrates the familiarity of the researcher with the body of knowledge and establishes the credibility of the researcher’s work (Juntunen and Lehenkari, 2021). Besides, an analysis of the literature review also identifies and presents the publication themes or trends in the published articles and guides the researchers with directions for future research. Finally, a literature review helps the researchers establish an essential link between past research phenomena, state-of-the-art research interests, and subsequent research orientation in synergy with required market demands. The PRISMA framework is shown in Figure 1.

Figure 1 PRISMA framework (see online version for colours)



While initialising or conducting a literature review, researchers’ options may vary from meta-analysis and systematic literature review to bibliometric analysis. Specifically, a literature review can analyse and classify the data (published literary work) into various heads and sub-heads, themes, patterns, methods, and associations (Mullen and Klimaitis, 2021). Classification, therefore, was the prime step in the synthesis, analysis, and integration of articles. This study proposes to identify and integrate the research studies published in MI and classify them into meaningful heads. The PRISMA flowchart sequencing for conducting the review of literature is presented in Figure 1.

Articles related to MI were chosen from six databases publishing MI research: Emerald Insight, Elsevier, Taylor & Francis, Sage, Springer, and Wiley. For searching the related articles, keywords used were ‘marketing intelligence’ and ‘market intelligence’. As these keywords form the core of the research study, i.e., generated articles aptly suffice the objectives and requirements. The authors explored all the titles, abstracts, keywords and conceptual frameworks and included only those studies explicitly falling under the set boundaries. Furthermore, MI-related articles were also searched in journals not included in Scopus. They were outside these six selected databases, based on which 19 articles pertinent to the scope of the research field were included in the final dataset. Book chapters and conference papers were excluded from the generated dataset if found not relevant. Upon final analysis of the dataset, a total of 127 articles were identified, published across six selected Scopus databases (plus other Scopus databases) and 56 different journals (refer to Figure 1). The study applied no customised filter to generate possible articles on market or marketing intelligence from 1962 to 2020.

2.3 Distribution of articles by year of publication

This section presents the number of articles published in MI over the years. In 1962, MI was introduced to the marketing literature when companies transitioned their operations from sales to the marketing orientation. MI entire literature is classified into three-time horizons (Figure 2). This figure distributes the research publications into three time periods, i.e., 1962–2000, 2001–2010 and 2011–2020. Of the 127 research papers, 27.55%: 33.07%: and 39.37% were published in the first-, second-, and third-time horizons, respectively (refer to Figure 3). There exists a direct relationship in the number of articles published during defined time horizons.

Figure 2 Distribution of articles by year of publication (see online version for colours)

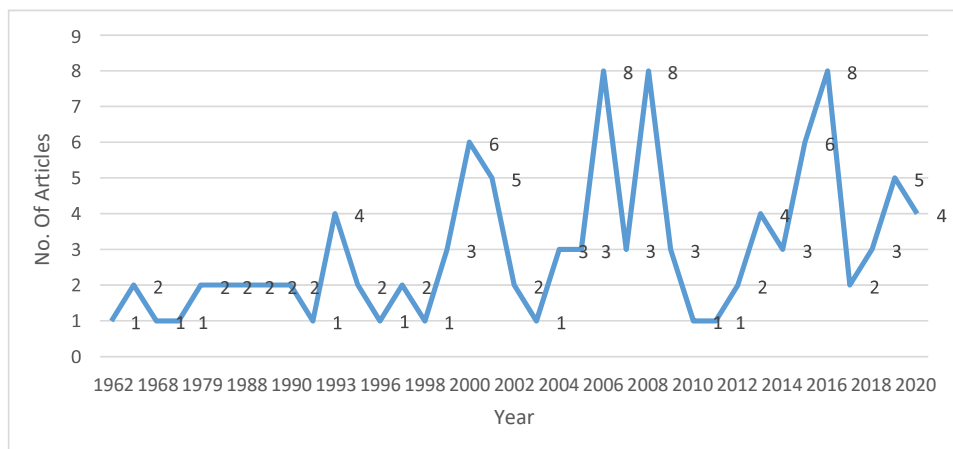
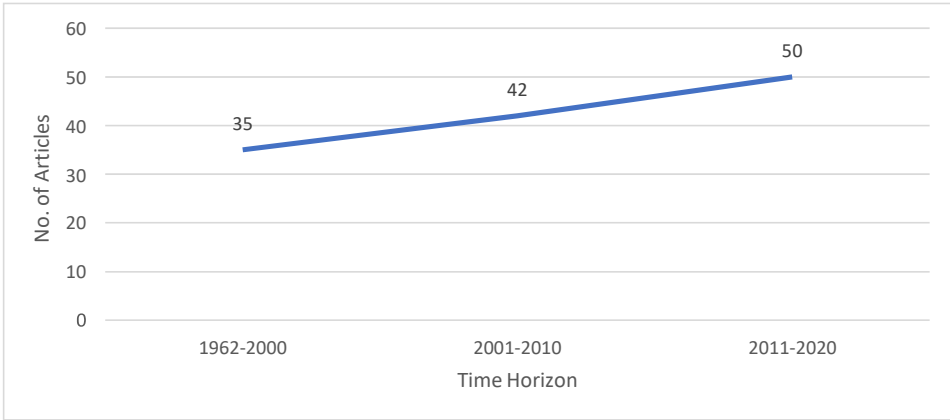


Figure 3 Classification of articles by period (see online version for colours)



2.4 Classification of articles based on time horizon/period

As the importance of marketing for business organisations is undisputed, there has been an upward shift in the number of articles published in this area. Since 2000, MI-related articles have been a regular feature in Scopus indexed journals. On analysis, from 2006 onwards, selected Scopus journals published five themes per year on average.

2.4.1 Time horizon 1 – 1962 to 2000

The concept of MI was introduced to the business literature by Kelley (1965). Eight out of 35 publications in this period were published in the strategic, operational and tactical relevance of MI, followed by seven publications in the areas of intelligent systems/technologies used for data accumulation, analysis, and dissemination by marketing organisations. In business organisations, customer-centricity is one of the critical dimensions of business centricity. Still, there is a shortage of research published on essential dimensions of customer relationships, satisfaction, and loyalty.

2.4.2 Time horizon 2 – 2001 to 2010

As MI's concept gains prominence, publication themes also marked a shift towards discovering a new source of timely and accurate marketing information and how it can be a strategic, operational, and tactical advantage. Out of 42 publications, 14, 8 and 5 journals pertained to the themes of strategic relevance, predictors, and consequences of MI and firm performance, respectively. Two articles covering critical customer dimensions of the relationship, trust, satisfaction and loyalty, are published during the same period, showcasing MI's inclination towards customer requirements (customisation).

2.4.3 Time horizon 3 – 2011 to 2020

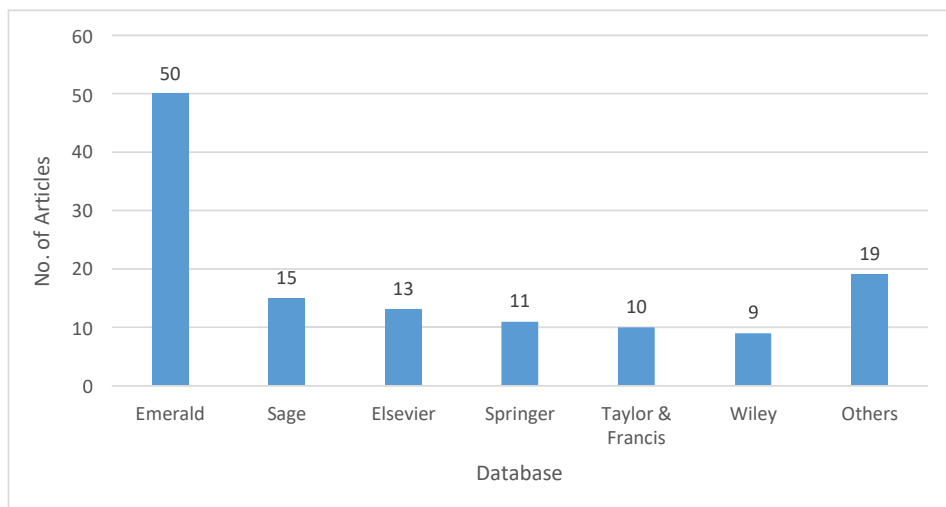
The publication theme of period three more or less remained the same, with the bulk of MI-related publications belonging to the strategic, tactical, operational relevance of MI,

firm performance, predictors, and consequences of MI, having 13, 10 and 7 publications. Strategic, tactical, and functional implications of MI, with a total contribution of 27.55 %, emerged as the core publication theme amongst all three time periods, symbolising MI applications' importance for business organisations' marketing and financial performance. Furthermore, the contribution of papers on the fusion of MI and customers also gets doubled from period 2 (four articles got published related to MI implications on customers).

2.5 Distribution of articles by database

Upon analysis, 127 articles were identified to be distributed across databases (refer to Figure 4). Emerald Insight accounts for 39.37 % of the total published research articles, followed by 11.81%, 10.23%, and 8.67% publications in Sage, Elsevier, and Springer, respectively. Taylor & Francis and Wiley account for 7.87% and 7.07% of published articles. Excluded articles amounting to 14.96% of publications were classified under the category of 'Others' published in different Scopus indexed journals.

Figure 4 Database-wise classification (see online version for colours)



2.6 Distribution of articles by journals

After analysis, 56 journals were identified from the selected six leading Scopus publication houses or databases publishing articles in the area of MI. Amongst these journals, 22.04% of articles were published by *Marketing Intelligence and Planning (MIP)*, followed by 7.87% publications by the *European Journal of Marketing* (both Emerald Insight indexed journals). Both of these journals amount to 30% of cumulative publications in the research arena of MI. Journals like *Information Systems and E-Business Management*, *Journal of Business Research*, and *Journal of Marketing* publish 2.36% of total research articles. Overall, the top 5 journals account for 37% of the

total publications. Journal-wise classification of analysed articles was presented in Table 2.

Table 2 Journal-wise classification of MI articles

<i>S. no.</i>	<i>Journal name</i>	<i>No. of articles</i>
1	<i>Marketing Intelligence & Planning</i>	28
2	<i>European Journal of Marketing</i>	10
3	<i>Information Systems and e-Business Management</i>	3
4	<i>Journal of Business Research</i>	3
5	<i>Journal of Marketing</i>	3
6	<i>Tourism and hospitality research</i>	2
7	<i>R&D Management</i>	2
8	<i>Management Decision</i>	2
9	<i>Journal of personal selling and sales management</i>	2
10	<i>Journal of Marketing research</i>	2
11	<i>Journal of Business-to-Business Marketing</i>	2
12	<i>Journal of Business & Industrial Marketing</i>	2
13	<i>Journal of Direct, Data and Digital Marketing Practice</i>	2
14	<i>International Journal of research in marketing</i>	2
15	<i>International Journal of Bank marketing</i>	2
16	<i>Industrial Marketing</i>	2
17	<i>Decision Support System</i>	2
18	<i>Annals of Association of American Geographers banner</i>	1
19	<i>Asia Pacific International Journal of Marketing</i>	1
20	<i>Benchmarking: An International Journal</i>	1
21	<i>Business Horizons</i>	1
22	<i>MIS Quarterly</i>	1
23	<i>Competitive Intelligence Review</i>	1
24	<i>ESIC Market Economics and Business Journal</i>	1
25	<i>Economic Geography</i>	1
26	<i>Handbook of business strategy</i>	1
27	<i>Expert Systems with Applications</i>	1
28	<i>Industrial Marketing Management</i>	1
29	<i>Intelligence and National Security</i>	1
30	<i>International Journal on Universal Access in Human-Computer Interaction</i>	1
31	<i>International Journal of Market Research</i>	1
32	<i>International Journal of Tourism Research</i>	1
33	<i>International Journal of marketing studies</i>	1
34	<i>International Journal of Business Forecasting and Marketing Intelligence</i>	1

Table 2 Journal-wise classification of MI articles (continued)

<i>S. no.</i>	<i>Journal name</i>	<i>No. of articles</i>
35	<i>International Small Business Journal</i>	1
36	<i>Journal of marketing analytics</i>	1
37	<i>Journal of management information systems</i>	1
38	<i>Journal of Small Business and Enterprise Development</i>	1
39	<i>Journal of Workplace learning</i>	1
40	<i>Journal of vacation marketing</i>	1
41	<i>Journal of the Academy of Marketing Science</i>	1
42	<i>Journal of Strategic Marketing</i>	1
43	<i>Management Science</i>	1
44	<i>Management International Review</i>	1
45	<i>Logistics Information Management</i>	1
46	<i>Market Research Best Practice</i>	1
47	<i>Public Library Quarterly</i>	1
48	<i>Marketing Intelligent Systems Using Soft Computing</i>	1
49	<i>Retailing in the 21st century</i>	1
50	<i>Society of Competitive Intelligence Professionals</i>	1
51	<i>Romanian Journal of Marketing</i>	1
52	<i>Technology Analysis & Strategic Management</i>	1
53	<i>Strategic management journal</i>	1
54	<i>Journal of Critical Review</i>	1
55	<i>The Journal of Product Innovation Management</i>	1
56	<i>Big Data Research</i>	1

2.7 Region-wise/continent wise classification

Western countries like Europe and the USA, which are pioneers in marketing programs and related innovations, were leading the chart by publishing 38.58% of total articles related to MI. Asia with 14.17% articles was a distant third in MI-related publications and excluded items by Oceania (including Australia and New Zealand) and African countries, i.e., 6.29% and 2.36% articles MI, respectively. As an individual country, the USA is leading the publication chart by publishing 32.28% (41 items), followed by the UK, which posts 22.83% (29 articles), more than the combined publications of continents, namely, Asia, Oceania, and Africa. Taiwan in Asia and Australia in Oceania has published 4.72% of the articles (six articles each) (refer to Figure 5). Additionally, South America and Antarctica are entirely missing from the publications chart of MI articles.

Figure 5 Classification of articles by continents (see online version for colours)

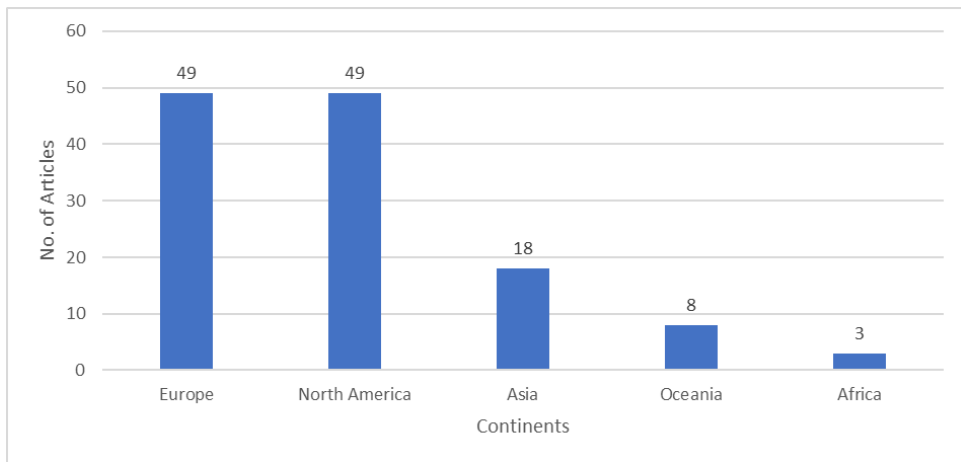


Figure 6 Word cloud of titles of selected articles (see online version for colours)



Figure 6 reflects the use of dominant words in MI literature. It is evident that MI studies centred on the research themes like strategy, predictors, consequences, customers, and analytics.

3 Key research areas

Once the articles were distributed based on identified relationships, Figure 8 provides a subject-wise classification of reviewed research articles.

3.1 Subject-wise classification of articles

MI articles, as distributed across databases, were classified under eight themes, namely: strategic, tactical and operational, performance, predictors and consequences, salesforce, intelligent systems/technologies, environment, general overview/concept, customer relationships/satisfaction/loyalty. 27.55% of MI related articles were published on strategic implications of MI, seconded by performance (15.74%) and followed by salesforce, MI technologies (both at 11.81%) and environment (9.44%) and lastly on MI concept and customers (both at 4.72%). This statistical analysis reinforces that strategic/tactical MI, with 27.55% publications, has far-reaching implications for business organisations. Alternatively, customer intelligence is one area that needs the renewed focus of researchers and scholars, as only 4.72% of articles were published related to MI.

3.2 Classification (time horizon and subject comparisons)

This section presents articles on trending research areas published in three different periods. Articles on the environment with 4% publications were equally distributed across all three time periods. Moreover, publications on strategic/operational/tactical decision making, SME performance, and predictors and consequences exhibit growth patterns. Still, only MI articles related to customer research doubled in publications from 2001–2010 to 2011–2020 (refer to Figure 7). Nearly 5% of the total research articles were published on the concept of MI at different time horizons.

Figure 7 Subject-wise classification (see online version for colours)

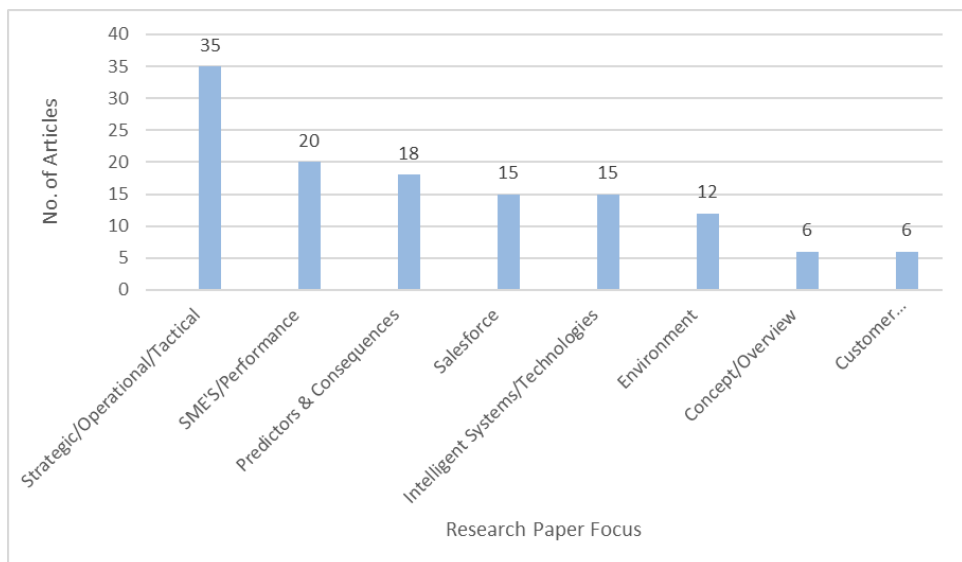
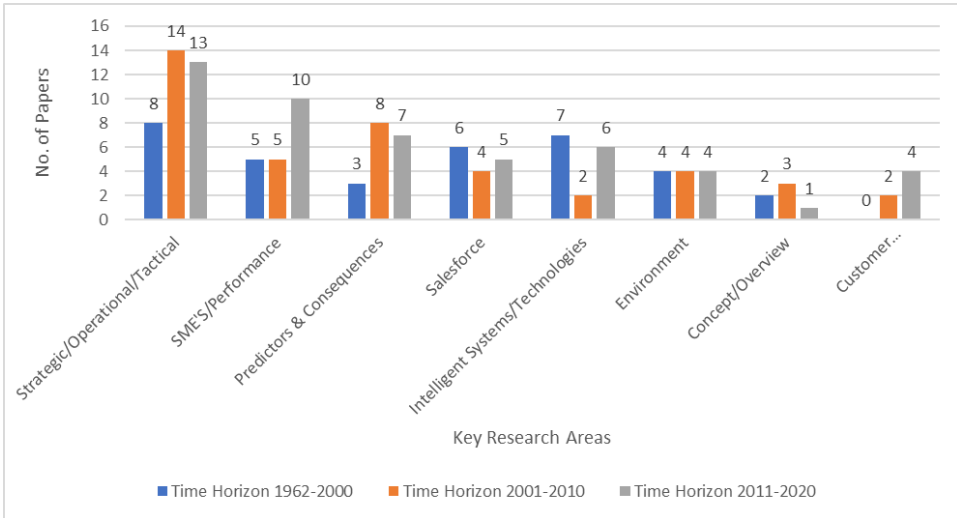


Figure 8 Classification of articles by key research areas published during different time horizons (see online version for colours)



3.2.1 Strategy

Upon analysis of MI literature, strategic/tactical/operational implications of MI have emerged as the trending theme. Such is the composition of this research theme that nearly 27.55% of publications related to this field were published across all three time periods, i.e., 1962 to 2000, 2000 to 2010, and finally, 2010 to 2020.

As evident from the associated literature, MI has both short-term and long-term strategic, tactical, and operational implications for environment scanning, innovation, business planning, decision making, new product development, innovation, brand positioning, strategic marketing, and competitive advantage, and business transformation.

3.2.2 Performance

A significant proportion of MI literature is found to be associated with the theme of firm performance. The performance, measured from revenue, profits, market share, or market growth, signals the short- and long-term efficiency of a business organisation's operations. Most of the research studies related to performance focused on how the application of MI leads to improvement in firm performance. The majority of these performance-centric studies cater to medium, small and micro enterprises (MSMEs). Upon analysis, only a handful of SMEs employs MI sources to plan their business operations and decision making. In comparison, most of them use the traditional method of collecting information about their customers, markets, competitors, and associated stakeholders.

3.2.3 Predictors and consequences

Most of the business organisations extensively use MI to identify and utilise the known drivers of MI for identifying new information sources. Additionally, MI organisations

continuously upgraded and innovated their data generation capabilities in sync with trending customers' technologies.

Considerable research on MI focused on the study of predictors and consequences. Institutional sources, information system sources, and Internet sources were identified as the three most cited sources of MI (Vishnoi and Bagga, 2020). The papers during the first period (1962–2000) focused on institutional sources of MI like customers, salesforce, suppliers, and competitors, whereas the documents during the second period (2001–2010) used Information systems as the source of MI like marketing information system (MIS), customer relationship management (CRM) and marketing research. Staying true to contemporary customers' social media habits, the third period (2001–2020) utilises Internet sources of MI like social media, blogs, weblogs or microblogs, and virtual communities.

3.2.4 Salesforce

Salesforce is another area of prominence, having been equally researched by MI enthusiasts and subject experts. Salesforce is an essential link between the company and its customers. Marketers frequently use salesforce to understand market requirements, market penetration, and business transformation as a marketing information source. Since they operate at the grassroots level, they are often aware of market developments and customer requirements.

3.2.5 Intelligent systems and technologies

The marketing information analysis depends upon the implementation or association of intelligent agent technologies. Big data analytics, artificial intelligence, and salesforce automation were some of the technologies resulting in structured information sets, which are then formally implemented in the work setting for improved functioning.

3.2.6 Environment

MI is concerned with mapping organisational internal and external environments for decision making, be it customers, competitors, suppliers, or employees. Vigilant organisations scan their immediate ecosystem or landscape to upgrade their skillsets and technologies in orientation with future possibilities.

3.2.7 Concept

'As a subject/area/field is as strong as its concept', and the concept of any subject or area caters to the definitions, the scope of operations, and associated technologies. Literary studies associate the idea of MI as originating from business intelligence and later bifurcated into customer, competitive, competitor, and market intelligence. Similarly, artificial intelligence is another technology component of MI.

3.2.8 Customer

Customer-related studies in MI literature primarily pertain to customer relationships, customer satisfaction, and customer loyalty. After analysis of the literature, only a few

customer satisfaction and loyalty-related studies were identified, but the themes of related publications are showing an upward trend.

Literature suggests a visible shortage of studies on customers as a dimension of MI. As MI is synonymous with customer orientation, six research studies on MI-customer fusion did not do justice to this new and practically relevant MI domain. Future researchers can plan to work on customer feedback and information studies to improve product and service deliverables. As the young tech-savvy customers spend considerable time on social media sites, social media is fast emerging as an essential customer information source. Therefore, it should be thoroughly explored and exploited for business advantage.

3.3 *Key research areas: representative references*

The representative references about the eight key research areas were tabulated in Table 3.

Table 3 Bibliography of reviewed literature

<i>Key research areas</i>	<i>Representative references</i>
Strategic/tactical/operational decision making	Barnea (2020), Chiu et al. (2009), Cornish (1997a, 1997b), Crosier and Pickton (2003), Dishman and Calof (2008), Eng and Okten (2011), Evans (1988), Fletcher and Wheeler (1989), Hattula et al. (2015), Jensen et al. (2016), Kelley (1965), Lackman et al. (2000), Mandal (2018), Miree and Prescott (2000), Musyoka et al. (2007), Novicevic et al. (2010), Oktar and Erdoğan (2001), Rakthin et al. (2016), Skyrme (1989), Song and Thieme (2019), Tan (2001), Trainor et al. (2013), Trim (2004) and Trim and Lee (2006, 2008)
SME's performance	Cacciolatti and Fearn (2013), Carson et al. (2020), Donnelly et al. (2012), Folsom (1991), Helm et al. (2020), Jaworski and Kohli (1993), Katsikea et al. (2019), MacPherson (2000), Mostaghel et al. (2019), Navarro-García et al. (2013, 2016), Ratten (2014), Williams and Chaston (2004), Wood (2001) and Yap et al. (2018)
Predictors and consequences	Cornish (1997b), Fleisher (2008), Gebhardt et al. (2019), Howard et al. (2020), Kohli et al. (1993), Lafferty and Hult (2001), Li and Li (2013), Lympelopoulos and Chaniotakis (2005), Maclaran and Catterall (2002), Pühringer and Taylor (2008) and Vishnoi and Bagga (2020)
Salesforce	Bonfrer et al. (1993), Festervand et al. (1988), Kuester and Rauch (2016), Le Bon and Merunka (2006), Le Meunier-FitzHugh and Piercy (2006), Moss (1979, 1981), Nasri and Charfeddine (2012), Thietart and Vivas (1981) and Webster (1965)
Intelligent systems/technologies	Albescu and Pugna (2014), Amaravadi et al. (1995), Chern et al. (2015), Helm et al. (2014), Kumar et al. (2016), Li et al. (1993), Li (2000), Martínez-López and Casillas (2009), Murray and Carter (2005), Ramos et al. (2017), Skyrme (1990), Wright and Ashill (1998) and Xu and Kaye (1995)

Table 3 Bibliography of reviewed literature (continued)

<i>Key research areas</i>	<i>Representative references</i>
Environment	Burke (2006), Burton (2002), Diamantopoulos and Souchon (1999), Hughes (2008), Lin et al. (2018), Logman (2008), Maltz and Kohli (1996), Ratten (1995), Stone (2015) and Tan and Ahmed (1999)
Concept/overview	Jarek and Mazurek (2019), Seidlova et al. (2019), Walle (1999) and Wright and Calof (2006)
Customer satisfaction and loyalty	Al-Weshah (2017), Donnelly et al. (2012), Kiani et al. (2018), Lee and Trim (2006) and Yang et al. (2015)

In hindsight, this study aims to understand, classify, and document the development of MI through a literature review. Upon classification, this research study identifies 127 research articles published from 1962 to 2021 in six leading Scopus databases. Alternatively, most cited papers are referred to and analysed to earmark the most prominent research themes, associated research methodologies, and statistical techniques. Furthermore, 54.33% of total research articles published used qualitative research techniques, whereas quantitative research forms the core of 45.67% of research studies. Strategic implications of MI, firm performance and intelligent agent technologies were trending themes.

3.4 Identification of theories used in marketing intelligence literature

Upon analysis of MI literature, the most relevant theories used by researchers in formulating their conceptual frameworks were identified. The commonly used theories as determined from the study of literature were tabulated in Table 4.

Table 4 Theories used in MI studies

<i>Theory</i>	<i>Author</i>
Grounded theory	Inha and Bohlin (2017)
Resource-based view	Makadok and Barney (2001)
Market-based view	Helm et al. (2014)
Expectancy theory	Nasri and Charfeddine (2012)
Job demand resource theory	Kuester and Rauch (2016)
Organisational capability theory	Lin et al. (2018)
Technology acceptance model	Lymperopoulos and Chaniotakis (2005)
Satellite model	Trim (2004)
Value chain analysis	Skyrme (1989)
Dynamic capability theory	Lin et al. (2015)

Preliminary analysis of previous literature revealed the most relevant theories applied by authors in their research studies. These identified theories were then studied in isolation, and the most appropriate theory is utilised in formulating the theoretical and conceptual framework of the present study. Additionally, most used statistical techniques in the domain of MI like PLS-SEM (Lymperopoulos and Chaniotakis, 2005; Trainor et al., 2013), AMOS-SEM (Helm et al., 2020; Kuester and Rauch, 2016), and regression

(Jensen et al., 2016) were also discovered from the analysis of the previous MI literature. And the final selection of the statistical measure to be used in the present research is made.

4 Discussion and findings

This study aims to understand, classify, and document the development of MI through a literature review. Upon classification, this research study identifies 127 research articles published between 1962 and 2020 in six leading Scopus databases. Alternatively, most cited papers are referred to and analysed to earmark the most prominent research themes, associated research methodologies, and statistical techniques. Strategic implications of MI, firm performance and intelligent agent technologies were trending themes. Furthermore, 54.33% of total research articles published used qualitative research techniques, whereas quantitative research forms the core of 45.67% of research studies. The commonly used theories and models were: grounded theory: resource-based view (Makadok and Barney, 2001); market-based view (Helm et al., 2014); expectancy theory (Nasri and Charfeddine, 2012); job demand resource theory (Kuester and Rauch, 2016); organisational capability theory (Lin et al., 2018); technology acceptance model (TAM) (Lympieropoulos and Chaniotakis, 2005); satellite model (Lin et al., 2018) and value chain analysis (Skyrme, 1989) for designing of theoretical and conceptual frameworks. Majorly used statistical techniques in the domain were PLS-SEM (Lympieropoulos and Chaniotakis, 2005; Trainor et al., 2013), AMOS-SEM (Helm et al., 2020; Kuester and Rauch, 2016), and Regression (Jensen et al., 2016).

One of the most prominent research areas, centrifugal to all three time periods, was identified as strategy/tactical/operational relevance of MI. Since the inception of the MI concept, researchers and subject experts working in new product development, innovation, brand positioning, strategic marketing, competitive advantage, business transformation, environment scanning, and business planning indicated strategic and tactical MI. Such is the composition of this research area: nearly 27.55% of publications were related.

Performance is another area that forms the core of MI-related studies. Researchers have focused on how the application of MI leads to improvement in firm performance. Most of these performance-centric studies cater to medium, small and micro enterprises. Upon analysis, only a handful of SMEs employs MI sources to plan their business operations and decision-making. In comparison, most of them use the traditional method of collecting information about their customers, markets, competitors, and associated stakeholders.

Considerable research on MI focused on the study of predictors and consequences. Institutional sources, information system sources, and Internet sources are the three most cited sources of MI (Vishnoi and Bagga, 2020). The papers during the first period (1962–2000) focused on Institutional sources of MI like customers, salesforce, suppliers, and competitors, whereas the documents during the second period (2001–2010) used Information systems as the source of MI like marketing information (MIS), customer relationship management (CRM) and marketing research. Staying true to contemporary customers' social media habits, the third period (2001–2020) utilises internet sources of MI like social media, blogs, weblogs or microblogs, and virtual communities.

Salesforce is another area of prominence, having been equally researched by MI enthusiasts and subject experts. Salesforce is an essential link between the company and its customers. Marketers frequently use salesforce to understand market requirements, mark penetration, and business transformation as a marketing information source. Since they operate at the grassroots level, they are often aware of market developments and customer requirements.

There is a visible shortage of studies on customers as a dimension of MI. As MI was synonymous with customer orientation, six research studies on MI-customer fusion did not do justice to this new and practically relevant MI domain. Future researchers can plan to work on studies using customer feedback and information for improving product and service deliverables. As the young tech-savvy customers spend considerable time on social media sites, social media is fast emerging as an essential customer information source. Therefore, it should be thoroughly explored and exploited for business advantage.

4.1 Research outcomes

This exploration of MI literature identified critical takeaways of this research. These research takeaways are presented in synergy with the description and author references through a tabular form in Table 5.

Table 5 Research outcomes, description, and references

<i>Research takeaway's</i>	<i>Description</i>	<i>Author</i>
Perspective's	Strategic perspective (strategic marketing, strategic planning), market perspective (business environment, customer environment)	Tan and Ahmed (1999, p.298), Huster (2005, p.13), Jamil (2013, p.463), Cornish (1997a, p.453; 1997b) and Alamsyah and Saviera (2017, p.1)
Predictors of marketing intelligence	Customers, employers (salesforce), suppliers, competitors, social media, marketing research, and virtual communities.	Büchner and Mulveena (1998), Moss (1981), Le Meunier-FitzHugh and Piercy (2006), Thietart and Vivas (1981) and Kuester and Rauch (2016)
Strategic implications	Business performance, decision making, business value creation, new product development, competitive advantage, business forecasting, strategic marketing, business planning, innovation, business transformation	Mandal (2018), Trainor et al. (2013), Tan (2001) and Jamil (2013)
Publication trends	Strategic applications, tactical initiatives, customer centricity, salesforce contribution	Al-Weshah (2017) and Kuester and Rauch (2016)
Key research areas	Strategic decision making, tactical decision making, salesforce, intelligent agent technologies (IAT), customer relationships, customer satisfaction and customer loyalty	Carson et al. (2020), Lin et al. (2018) and Kiani et al. (2018)

Table 5 Research outcomes, description, and references (continued)

<i>Research takeaway's</i>	<i>Description</i>	<i>Author</i>
Industry and sector-specific applications	Finance (banking, micro-finance, insurance, capital market), manufacturing [micro small and medium enterprises (MSME)], information technology [information technology enabled services (ITES)], retailing (e-commerce, supermarkets)	Lymperopoulos and Chaniotakis (2005) and Lee and Trim (2006)
Tactical implications	Key account planning, customer insights, customer value, customer returns, marketing returns, promotion, pricing, segmentation, environment scanning	Crosier and Pickton (2003) and Mandal (2018)
Associated technologies	Artificial intelligence, big data analytics, internet of things (IoT), business intelligence	Berente et al. (2021), Cappa et al. (2021) and Purwanto et al. (2021)
Statistical tools	Partial least square-structured equation modelling, analysis of moment structures – structured equation modelling, regression analysis	Lymperopoulos and Chaniotakis (2005), Trainor et al. (2013), Helm et al. (2020), Kuester and Rauch (2016) and Jensen et al. (2016)
Theories	Market-based view, expectancy theory, job demand resource theory, organisational capability theory, technology acceptance model (TAM) satellite model and dynamic capability theory	Inha and Bohlin (2017), Helm et al. (2014), Lin et al. (2015), Kuester and Rauch (2016) and Lin et al. (2018)
Challenges of implementation	Data integration, data audit, data validation, data reliability and accuracy	Hair and Sarstedt (2021) and Shah and Murthi (2021)
Bottlenecks of development	Lack of industry-academia collaborations, corporate participation and sponsorships	Pühringer and Taylor (2008), Skyrme (1990), Stone (2015), Carson et al. (2020), Howard et al. (2020) and Miree and Prescott (2000)

4.2 Managerial implications

Proper understanding of MI tools provides the managers to deal with market uncertainties and dynamic customer demands. Effective implementation of MI helps the organisations to have competitive edge over other players in the marketplace and achieve organisational excellence. MI has far-reaching practical, business, and performance implications for firms. A study by Lackman et al. (2000) reinforces the business applications of MI, as three-fifth of companies using MI shows a positive increase in two-thirds of their business activities. Additionally, 50% of the companies holding MI accountable for improved performance and 33% of organisations improved activity levels, contributing significantly to strategic and tactical decision making. On the contrary, there is a visible dearth of corporate studies as only 3.14% (4 out of 127)

reviews were found to be conceptualised/executed by corporates (Pühringer and Taylor, 2008; Skyrme, 1990; Stone, 2015). Three prime sources can generate MI: the internet, institutional, and information systems. They are positively associated with strategic planning and decision making and improve the performance of business organisations. Even though MI is a vast field or research domain with many viable information sources and positive implications, corporations and institutions sponsored only 3.93% (5 out of 127) studies. Amongst these five studies, three tasks are sponsored by Europe (Carson et al., 2020; Howard et al., 2020; Miree and Prescott, 2000), one by the USA (Miree and Prescott, 2000), and Taiwan is the only Asian country with a sponsored study (Li and Li, 2013).

5 Conclusions, limitations and future research directions

Marketing is a century-old concept with time-tested dimensions of richness and vastness in theoretical associations and real-time business implications. MI as a field feeds on marketing information from the internet, social media, customers, competitors, or suppliers. Exchanging the respective masteries by corporates and academia will lend more relevance and credibility to MI. Academia-industry collaboration will foster a much-needed exchange of theoretical databases or associated literature for practical implementation in business organisations. It will also expedite market-tested and trending marketing practices to be taught in the classrooms, making it a win-win situation for Marketing professionals, academicians, and the development of MI as a field.

5.1 Limitations

Firstly, the study prospects were centred on including all representative literature on MI from the Scopus databases; still, chances exist that some well-known work has been missed. Secondly, human errors are inevitable because research papers' classification and review are done manually by authors. The authors also took subject experts' help for subsequent analysis, but researchers' subjectivity and bias may still be present. Thirdly, MI literature was closely associated with complementary fields or sub-fields like competitive intelligence, customer intelligence, product intelligence, competitor intelligence, and market intelligence. Although the keyword MI was used in the review process, some inclusions from sub-fields are always possible because of manual screening and selection of articles. The review did not include books, book chapters, and conference proceedings. Therefore, the study left out some critical subject-related scholarly publications.

5.2 Future research directions

Though this exploratory review attempts to present the state-of-the-art of MI literature, future researchers can contemplate employing theories, context, characteristics, and methodologies (TCCM) approach for more granular and in-depth analysis of the subject literature. Furthermore, future research can also employ a bibliometric or meta-analysis approach to review the subject-specific literature and discover more contemporary themes and trends in MI literature. Finally, future researchers can narrow their literature

review-centric research focus on developing countries like India to trace the maturity of the application of MI systems and technologies and the scope of further investigation. Challenges and critical success factors of MI is grey area of research. These can be explored and analysed using multi-criterion decision making techniques (MCDM).

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