# A Bibliometric Review of Sales Performance Research in India: Trends and Future Directions

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#### Abstract

This study aims to examine the Scopus database's records of research developments in India's sales performance. Using VOS-viewer and R Biblioshiny tools, we retrieved 864 publication records relevant to Sales performance and performed a bibliometric analysis, looking at aspects like yearly scientific output, co-citation trends, author keywords, and journal bibliographic links. The research, particularly examined articles from 1977 to 2023, found a 7.25 percent yearly rise in linked papers, demonstrating its influence on academia. The four phases of sales success are revealed by theme mapping, with a focus on customer satisfaction, while co-citation and bibliographic coupling studies indicate important authors and textual linkages. But there are drawbacks, such as dependence on the Scopus database, possible differences with other databases, and the influence of data filters. This study provides insightful information on Sales in India.

Keywords: Sales performance, Co-citation, Co-occurrence and Bibliometric analysis

#### 1. Introduction

Sales performance is defined as a company's sales professionals' ability to win at each step of a customer's purchasing process and finally gain the business on the right grounds and in the correct frame. It also assesses the performance of the sales force and individual salespeople. Sales performance is an important measure of a company's success and competitiveness in any economy (Al-Mamary et al., 2020). It represents the success of sales tactics, the efficacy of sales procedures, and market dynamics in general (Johnson, J. and Matthes et al., 2018). Sales performance research in a certain nation or area gives useful insights into the elements that drive sales results and may guide corporate strategy, law-making, and future market projections (Rocha, E., Pereira, G., & Pacheco, D., et al., 2019;). In this study, primary emphasis is on doing an analysis of sales performance in India, which is now one of the economies with the highest rate of economic expansion worldwide (Lee, J. et al., 2020).

India has one of the fastest-growing economies in the world, so it has a unique and changing business environment (Khan, W., Singh, T., & Jamshed, M. et al., 2021). The Indian market presents both potential and problems for enterprises due to its enormous and diversified customer base, quickly expanding middle class, and fast urbanization (Pace, S. et al., 2019). Understanding sales success in India is critical for companies looking to enter or develop in this market (Coward, C. et al., 2003). India has emerged as a major participant in the international sales arena due to its dynamic and diverse market (Vasudevan, A. et al., 2002). Sales have increased dramatically across all industries in India, from physical shops to online marketplaces, and from fast-moving consumer goods to cutting-edge technologies (Zeleke, T., & Mekuria, M. et al., 2017). The country's enormous population is one of the primary reasons driving sales success in India. With a population of more than 1.3 billion individuals, India has a large customer base, creating enormous prospects for companies (Zhang, L., Wang, Y., Huang, Y. et al., 2017). Furthermore, increasing population growth has resulted in a significant rise in disposable income, leading to increased consumer expenditure on a variety of items and services (Suvorov, A. and Soloviev, A. et al., 2011).

In recent years, bibliometric analysis has gained popularity as a quantitative tool for appraising academic publications (Chen, Z., Ding, C. et al., 2023). It gives a structured way to look at study trends, find the most important authors, organizations, journals, and make a map of a field's intellectual structure (Kumar, S., & Donthu,

N. et al., 2022). In this bibliometric literature review, we aim to better understand the state of sales performance research in India.

Aim of the study is to go thorough picture of the research environment linked to sales success in India via bibliometric analysis. To identify relevant patterns, tendencies, and insights, academic papers on the subject were analyzed. The purpose of this bibliometric research article is to add to the knowledge on sales performance by giving a complete review of the research environment on this issue in India (Martí-Parreño, J. et al., 2016).

### 2. Research Methodology

On March 14, 2023, the Scopus database was utilised for obtaining articles on Sales performance by gathering citation data. On the Scopus website, the following string was input in the advanced search option:

TITLE-ABS-KEY (("Sale" OR "Sales") AND ("Performance" OR "Performances" OR "competency")) AND (LIMIT-TO (AFFILCOUNTRY, "India")) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (DOCTYPE, "ar"))

This bibliometric study attempts to examine academic publications in English to comprehensively analyse the available literature on sales performance in India. This research aims to identify significant themes, trends, and contributors in the field of sales performance research in India through the use of appropriate keywords like "sale," "sales," "performance," and "competency," and by applying filters like publication stage (final), language (English), and document type (article). The search was narrowed further by choosing "India" from the Country drop-down menu. After putting the above string into advance search, a total of 864 articles were found.

#### 3. Objectives of the study

a. To investigate the historical development of sales performance studies in India

b. To identify significant authors, keywords, journals, and themes that influence sales performance research in India

c. To provide suggestions for new avenues to explore in the study of sales performance in India on the basis of the results of the bibliometric analysis

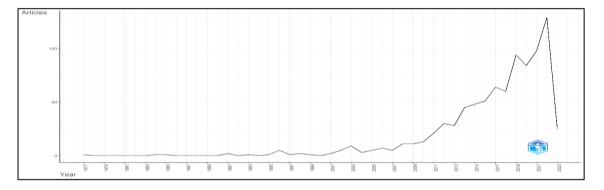
#### A) Main Information

MAIN INFORMATION ABOUT DATA		
Timespan	1977:2023	
Sources (Journals, Books, etc.)	468	
Documents	864	
Annual Growth Rate %	7.25	
Document Average Age	6.12	
Average citations per doc	12.39	
References	33871	
DOCUMENT CONTENTS		
Keywords Plus (ID)	3565	
Author's Keywords (DE)	3163	
AUTHORS		
Authors	1848	
Authors of single-authored docs	86	
AUTHORS COLLABORATION		
Single-authored docs	93	
Co-Authors per Doc	2.75	

International co-authorships %	19.91	
DOCUMENT TYPES		
Article	864	
Table 1		

The data presented above provides numerous significant findings from a bibliometric examination of a dataset spanning across 1977 to 2023 and included 864 articles from 468 various sources such as journals and books. The dataset has an annual growth rate of 7.25%, showing that the number of documents connected to the study subject has steadily increased over time. Document average age is 6.12 years, suggesting that the study is up-to-date and reflective of current advancements in the area. The average number of citations per document in the dataset is 12.39, indicating the significance and impact of the research in the field of academia. The total number of references in the dataset across all publications is 33,871, demonstrating considerable usage of previous research and literature in the topic of study. The dataset contains 3,565 Keywords plus (ID) and 3,163 Author's Keywords (DE), which give information on the primary subjects and themes discussed in the papers. The dataset has a total of 1,848 authors, with 86 single-authored papers, demonstrating a high degree of cooperation among field researchers. The information reveals that 93 papers are single-authored, with an average of 2.75 co-authors per document, showing a reasonably high degree of author cooperation. According to the statistics, 19.91% of the co-authors are from other countries, showing a high degree of international cooperation in the topic's study. The database contains 864 articles related to sales performance in India. Based on the bibliographic evaluation, these results give a quantitative summary of the dataset and may assist academics and the professionals better understand the features and trends in the area of study.

#### B) Annual Scientific Production



### Fig. 1

From 1977 to 2023, the Figure 1 illustrates the annual scientific output in terms of the quantity of publications pertaining to the research topic. The total number of publications changes throughout time, with some years having more and others having less or possibly none at all. The annual scientific output from 1977 to 1986 was comparatively low, with the majority of the years having either no or few publications.

During the 1977 production period, when the lessons of WWII were at the centre of attention, the restricted production of items indicated a change away from just focused on sales and towards developing international collaboration and sustainable growth. With the entrance of Maruti and a rise in competition in 1985, the focus on sales became crucial as enterprises sought a competitive advantage in the industry. The combination of limited production and suppliers during the period and a marketing strategy that was driven by production, there weren't many research articles on sales. This was because there wasn't much competition and more attention was paid to meeting production needs than to doing extensive research in the area of sales.

However, there was a considerable increase in publications starting in 1991, with certain years indicating a large increase in scientific output. Particularly, from 1991 to 2006, there was a steady rise of publications, with minor

variations in between. From the middle of the 1991s to the beginning of the 2000s, big changes happened in business, technology, and the auto industry.

Changes like the release of new car models like the Maruti WagonR and the Hyundai Santro, improvements in technology by companies like Modi Xerox, Canon, and HP, and the greater importance of marketing and sales led to a rise in research about sales. This rise in research interest is also due to the insurance industry's response to changing customer needs and the rise of firms that focus on analysing sales success. In 1996, when the Santro and other brands joined the market, competition became a major force. As businesses competed for market share and tried to do better than their competitors, they realised it was important to understand consumer behaviour, sales strategies, and market trends. This led researchers to dig deeper into the subject of sales and publish research articles to help businesses navigate the competitive landscape.

The most prolific years were those between 2007 and 2013, having an all-time high in the years 2012 and 2013, when there were at least 30 publications annually. The annual scientific output showed a general increase trend from 2014 to 2023, with some years indicating a notable increase in articles. Notably, with 94, 98, and 129 article publications each, each of the years 2019, 2021, and 2022 saw the highest number of publications. According to the data, the number of scientific work published on the subject of the study has generally increased through time, with certain years exhibiting particularly rapid growth in publications.

### C) Co-citation of Cited Authors

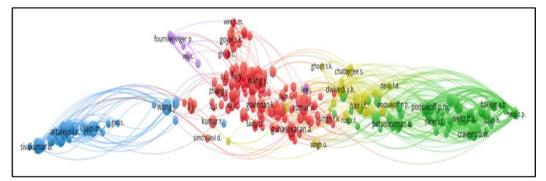
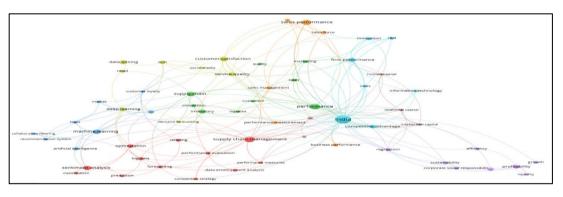


		Fig.2
Top 10 most cited	Citations	Total Link
authors		Strength
Jain M.	89	1869
Wang J.	88	1994
Gunasekaran A.	85	2175
Wang Y.	85	1792
Artalejo J.R.	80	1689
Krishnamoorthy A.	80	1782
Wang X.	80	1825
Podsakoff P.M.	78	2912
Choudhury G.	76	1926
Hair J.F.	76	2454

The co-citation of cited authors gives insight on citation trends and the relationships between writers in a certain area of study. Based on the data, it can be seen that a number of writers have a significant amount of citations and have considerable link strength when it comes to their relationships with other authors.

Nerur, S., Rasheed, A., & Natarajan, V. (2008). et al., (2008) are a few well-known writers with a significant number of citations. The high number of citations these writers have received demonstrates their status as leading experts in the subject.

A further indicator of an author's influence inside the network is the Total link strength, which assesses the intensity of connections between writers. A high total link strength indicates an author's strong influence and extensive connections with other authors in the network. Examples include Podsakoff P.M. (78 citations, 2912 total link strength), Hair J.F. (76 citations, 2454 total link strength), Mackenzie S.B. (68 citations, 2512 total link strength), and Sarstedt M. (59 citations, 2517 total link strength).





In general, the co-citation analysis gives an overview of the notable writers and their connections within the research community. These highly cited writers' substantial contribution to the field and their effect on the research of other scholars in the area are shown by their strong link strengths.

### D) Co-occurrence of Author Keywords

		Total	Link
Top 10 Frequently Used Keyword	Occurrences	Strength	
India	55	57	
Performance	26	17	
Supply Chain Management	25	23	
Sales Performance	21	18	
Customer Satisfaction	16	12	
Machine Learning	15	14	
Sentiment Analysis	15	8	
Supply Chain	15	10	
Data Mining	14	2	
Firm Performance	12	14	



The frequency with which several keywords appear together in a specific dataset or context is referred to as cooccurrence of author keywords. Figure 3 allow us to identify patterns or connections between keywords that commonly appear together, which will help us analyse the co-occurrence of author keywords. The total link strength and occurrences columns can be used to assess the degree of association between various keyword pairs. Consider the term "artificial intelligence," which appears 8 times and has a total link strength of 4, showing some degree of correlation or relationship with other terms. Similar to "artificial intelligence," "automobile industry" occurs 5 times in the dataset and has a lesser correlation with other terms, with a total link strength of 2.

While "customer satisfaction" only appears 16 times but has a total link strength of 12, indicating a higher correlation with other terms in the dataset. We may find keywords that commonly appear together or have greater relationships with other keywords by looking at the occurrences and total link strength values for each term. For instance, there is a significant correlation between the terms "machine learning" and "deep learning," as seen by their high occurrence rates (15 and 11 respectively) and overall link strength values (14 and 8 respectively). Similar to how "performance" and "supply chain management" have high overall link strength values (23 and 17 respectively) and high occurrence rates (25 and 26 respectively), showing a strong association between them. A number of keywords that are often used in the subject are revealed by the literature study. With 55 occurrences and a total link strength of 57, "India" is the most prevalent term, highlighting its importance in the study.

India has a fast-growing economy and a large number of people working in sales and marketing. This makes it a good place for experts and students to study sales performance. The number of times the term was used shows that there is a lot of interest in learning about how sales work in the Indian market, as well as the challenges and tactics that come with it. The fact that there are more and more research pieces shows how important it is to study and analyse sales success in India's unique business environment. After 1990 India become a very competitive marketplace that also would have encouraged researchers to consider Indian market for their study

This emphasises how crucial it is to comprehend the Indian context in the area being studied. Another significant term is "performance," which appears 26 times and has a total link strength of 17. This suggests that different areas of performance, such as organisational or individual performance assessment, are the emphasis of the literature.

Another widely used term is "supply chain management", which has a total link strength of 23 and appears 25 times. This implies that there should be a high priority placed on comprehending and improving supply chain activities, such as those involved in manufacturing, logistics, and distribution. Another term that shows up 21 times and has a total link strength of 18 is "Sales Performance," which highlights the importance of sales-related operations.

With 16 instances and a total link strength of 12, "Customer Satisfaction" is an essential component of corporate success. This implies that the literature investigates variables impacting customer satisfaction, gauges degrees of satisfaction, and identifies methods to raise consumer contentment. Both "sentiment analysis" and "machine learning" are associated with the use of sophisticated analytical methods, with sentiment analysis focusing on the analysis of sentiments, views, and mind-sets expressed in textual data and machine learning on the creation of algorithms that allow technology to learn from data.

With a total link strength of 10, "Supply Chain" indicates a wider emphasis on supply chain-related issues outside of supply chain management. With a total connection strength of 2, the frequency of "data mining" is 14 times, indicating a considerable concentration on gleaning insightful patterns and insights from huge datasets. "Firm Performance" appears 12 times with a total link strength of 14, demonstrating the interest in comprehending and evaluating organisational performance. In summary, the top 10 commonly used terms provide insightful information about the themes and ideas that recur throughout the literature. Words including "India," "Performance," "Supply Chain Management," and "Customer Satisfaction" are often used, which suggests that scholars have given these topics a lot of attention within their domains.

### D) Bibliographic coupling of Journal

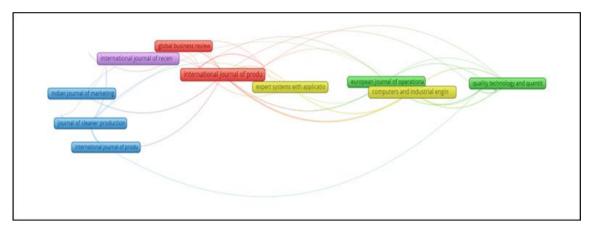


Fig.4

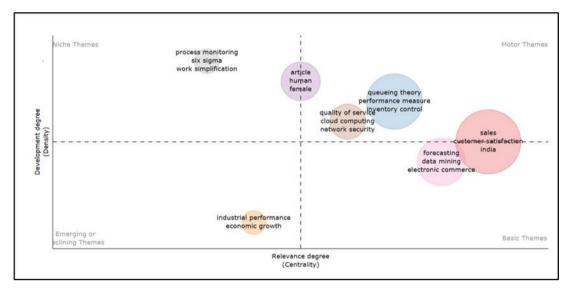
Table	4
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Top 10 Sources	Articles		Total Link strength
		Citation	
INTERNATIONAL JOURNAL OF PRODUCTION RESEARCH	17	432	39
COMPUTERS AND INDUSTRIAL ENGINEERING	12	380	37
EMERALD EMERGING MARKETS CASE STUDIES	12	2	0
INTERNATIONAL JOURNAL OF RECENT TECHNOLOGY AND ENGINEERING	12	13	2
GLOBAL BUSINESS REVIEW	11	93	2
JOURNAL OF BUSINESS AND INDUSTRIAL MARKETING	11	254	13
EXPERT SYSTEMS WITH APPLICATIONS	10	270	15
JOURNAL OF ADVANCED RESEARCH IN DYNAMICAL AND CONTROL SYSTEMS	10	9	0
JOURNAL OF CLEANER PRODUCTION	10	279	28
RAIRO - OPERATIONS RESEARCH	10	37	24

### **Thematic Map**

The driving themes are represented in the upper right quadrant, the fundamental themes are in the lower right quadrant, the specialty themes are in the upper left quadrant, and the emerging or declining themes are in the lower left quadrant. Notably, the image shows that a well-developed subject like "Customer satisfaction," wedged between Motor theme and Basic theme, is capable of organising the study field. In other words, client happiness continues to be the industry's dominant focus. The evolution of the area depends heavily on themes like "forecasting, data mining, and electronic commerce" that are shown in the Basic theme. Themes in the niche quadrant have grown internal ties, but they still make a negligible contribution to the advancement of the sales performance area. According to this research, items in the Niche quadrant like "process monitoring, six sigma, and work simplification" may need to be

more closely related to sales success. The topic of "industrial performance and economic growth" seems to be appearing in the appearing or declining quadrant. More work is required, according to the thematic analysis, to develop topics like "process monitoring, six sigma, and work simplification."





Our investigation of the theme mapping produced a number of unique clusters of linked phrases. The centrality and density metrics revealed that these clusters have a range of centrality and density. According to our results, the "sales" cluster was the most significant and linked cluster in our dataset since it was the most central and dense. High levels of density were also seen in the "queueing theory" cluster, indicating that it was a closely linked and significant subject. The "industrial performance" cluster, on the other hand, had very low centrality and density levels, indicating that it was a less significant or ancillary subject in our dataset. The layout and contents of our dataset are better understood thanks to these discoveries, which may also guide further study and decision-making in this area. Thematic analysis suggests the development of themes related to sales performance in India are within the subject of operations research.

### 4. Conclusion

Significant new information on the subject of the study was gleaned from the bibliometric analysis of the dataset of 864 papers that covered the years 1977 to 2023. The yearly growth rate of 7.25% suggests that the number of connected papers has been rising steadily over time. The research's significance and effect on the academic community are evident from the papers' recent average age and high number of citations per document.

The information gives a thorough summary of the yearly scientific output associated with the study subject from 1977 to 2023. Since 1987, there has been a discernible rise in the quantity of publications, with output gradually increasing from 1991 to 2006 and peaking in 2012 and 2013. The biggest number of articles were published in 2019, 2021, and 2022, demonstrating an overall increased trend in scientific output over time.

The three most cited writers and the strength of their links are highlighted via co-citation analysis done on the dataset. The most commonly mentioned author is Artalejo J.R., who is followed by Bakker A.B., Homburg C., and Cravens D.W. Strong correlations are also found between Anderson E. and Anderson J.C., Bagozzi R.P. and Brown T.J., Chatterjee S. and Chaudhry M.L., and others, according to the study. These connections imply similar study areas of interest and prospective working relationships. Co-citation analysis is a useful technique for locating important researchers and their connections in an area of study. The linkages between various keywords and the degree of correlation are clarified by co-occurrence analysis of author keywords. Finding patterns and connections between keywords as well as the potency of these correlations may be done with the aid of the analysis of

occurrences and overall link strength. The findings of this analysis may be helpful in highlighting significant themes and patterns in a particular dataset and informing future study and decisions in relevant disciplines.

Based on common references, bibliographic coupling offers a gauge of similarity or relatedness between various texts. The overall link strength scores for the various journals in the dataset show how tightly they are bibliographically linked to one another. While journals like "International Journal of Production Research" and "Computers and Industrial Engineering" exhibit a relatively high level of bibliographic coupling with other journals in the dataset, journals like "Applied Mathematics and Computation" and "Journal of Retailing and Consumer Services" exhibit relatively low and moderate degrees of coupling, respectively. In general, bibliographic coupling analysis may assist in locating connections and similarities among various publications and Journals.

Four quadrants were found via thematic mapping research as reflecting various stages of advancement in the area of sales performance. Customer happiness was shown to be the dominant subject, while forecasting and data mining were seen to be essential for the advancement of the profession. Potential themes in the Niche quadrant might need stronger ties to sales results. There should be greater attention put into developing topics like process monitoring and task simplification, according to the Emerging or Declining quadrant. The "sales" and "queueing theory" clusters were both very significant and linked, however the "industrial performance" cluster was less significant or peripheral, according to the Callon centrality and density metrics. These conclusions may direct future study in the field and provide insightful information about the dataset's structure and content.

#### 5. Future Direction

Future study in the area of sales performance may concentrate on issues like process monitoring and job simplification, which were recognised as developing or waning themes based on the data supplied. To further the area, researchers may also look at possible links between sales success and the specific themes. A high degree of bibliographical connection between certain journals may also point to successful partnerships or directions for interdisciplinary study.

The findings of theme mapping analysis might steer future study towards investigating new paths within the area of sales performance, and co-citation analysis can be used to uncover more significant writers and their affiliations. Co-occurrence analysis may be used in future studies to spot developing themes and patterns in the subject matter. Overall, the dataset's bibliometric analysis offers insightful information on the evolution of the discipline of sales performance, which may be used to guide future research and making decisions in this area. Researchers may better comprehend the subject's structure and content and create new study avenues that expand on the body of knowledge by identifying major topics, authors, and linkages within the field.

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