

E-Commerce Bibliometric Analysis in Business Development

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ABSTRACT

E-commerce is the way individuals buy and sell goods and services through the Internet. E-commerce is part of a larger business sector, covering everything from trade to running workflows, working with business partners, providing customer service, and more. The study aims to study the use of bibliometrics in e-commerce business development and VOSviewer as an analytical tool. The amount of metadata from twenty pieces of documentation that were successfully collected suggests that many authors are associated with this research. Overall, research on e-commerce during the development of new e-commerce provides a good reference point for further bibliometric research.

Keywords: E-commerce, VOSviewer, Bibliometrics

1. INTRODUCTION

In the last five years, e-commerce has been widely used by entrepreneurs as a means of transacting with their customers. In this respect, digital business capabilities that use e-commerce can activate, integrate, and consolidate sales activities with overseas markets so that they can deliver large-scale profits [1]. With the emergence of e-commerce, some new sectors, such as logistics, have emerged and have created more jobs in areas such as computers and the Internet [2].

E-commerce sales and traditional sales are very different because of the different transaction processes between seller and buyer and the software that provides a virtual view, shopping cart, payment methods, and delivery lines. There are various technologies that enable the rapid spread of electronics thanks to Internet speeds [3].

This tool not only offers an effective and easy-to-use method to complete your tasks but is also reliable and efficient. In addition, it has a mechanism to provide a centralized database and a navigation system that is easy to use for everyone [4].

Businesses should implement these strategies when promoting, selling, and providing services to their customers. It is often said that internet marketing is more effective than traditional marketing strategies due to the numerous challenges of entering the market, the differences between countries, and the lack of rules applicable to marketing [5].

Increased use of the Internet and electronic commerce, also known as e-commerce, has a significant impact on the way businesses operate, ranging from large corporations to home online stores [6].

With a fast connection between buyer and seller, transactions become easier, and both parties feel better. As a result, the seller earns more money [7].

The larger e-commerce sector consists of e-commerce, which covers much wider coverage than conventional business, including trading, working with business partners, providing customer service, and posting job vacancies. E-commerce requires web technology, as well as database technology, e-mail, non-computer technology, and cell phone text messages.

2. LITERATURE REVIEW

Electronic commerce, also known as e-commerce, has changed the business landscape around the world in a significant way. In the context of business development, bibliometric research and analysis on e-commerce have become increasingly important to formulate strategies and understand trends that affect this industry. In this article, we will provide a summary of literature related to the bibliometric analysis of e-commerce in business development.

1. E-Commerce: E-commerce refers to business transactions carried out through the Internet, such as the purchase and sale of products and services, as well as the exchange of information. This definition is used in bibliometric analysis to identify relevant research on the development of e-commerce businesses.
2. E-commerce development: E-commerce has grown rapidly since the advent of the Internet. A bibliometric review of e-commerce has shown the trend shift from traditional business models to online business models, as well as how it affects business development in various fields.
3. Bibliometric Analysis Methods: The bibliometric analysis includes the collection, processing, and interpretation of bibliographic data, including quotations, scientific publications, and research collaborations. This method can be used to find authors, journals, keywords, and relevant research trends in e-commerce.
4. E-Commerce Research Contributions: A library review addresses topics about online marketing strategies, consumer data analysis, e-commerce platform development, transaction security, and technological advances.
5. Business Implications: The results of this bibliometric analysis give business practitioners useful knowledge. They can understand the latest e-commerce research trends, find strategic opportunities, and make decisions based on research results to grow their business.
6. Challenges and Opportunities: The challenges and opportunities in bibliometric analysis of e-commerce are also discussed in this review of the library. Problems include data quality issues. On the other hand, opportunities include the involvement of the business sector in research and the development of new analytical techniques.

So, e-commerce bibliometric analysis in business development is a powerful tool to understand trends and research contributions in this field. Business practitioners can take smarter strategic action in the face of an increasingly digital business environment by understanding the existing literature.

3. METHODS

The study uses a quantitative descriptive approach, and bibliometric analysis is used to analyze it. We compiled 21 scientific search results based on searches of scientific articles found on Google Scholar with the keyword "digital marketing." These results are then exported to the RIS format and processed using VOSviewer.

The processes performed with VOSViewer are as follows:

1. Run the VOSviewer program.

2. Select the Create button on the file tab until the dialog box appears.
3. Select the map based on the data text and select the next button.
4. Select the data source reading the data from the manager's reference file and choose the next key.
5. Select the RIS tab, select a metadata file that has been downloaded, and select the next buttons.
6. Select the title column and abstract, and choose next.
7. Select binary counting, and then select next.

This bibliometric study uses the VOSviewers analytical tool. Bibliometric research is conducted to find out current research trends and findings (Yu et al., 2016). However, the VOSviewer program can display a variety of objects (van Eck & Waltman, 2010). The study uses a four-step research method to investigate e-commerce and its role in business development. Gagan below shows the procedure.

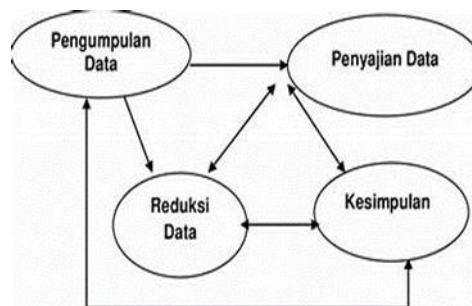


Figure 1. Shows A Network of Research Concentrating of E Commerce

Figure 1 shows a network of researchers concentrating on the themes of e-commerce in business development. The red, green, and blue clusters are the three largest clusters that can be folded. When authors are connected in networks with each other, they show relationships in the writing of articles.

1. Try using research keywords like "e-commerce" or "business development." The researchers used filters for "title" and "year 2023." In November 2023, searches related to the article database were conducted in publish or perish and Google Scholar.
2. First Search Results: A total of 1,000 articles were found. 12 journal articles of the research results should be organized in RIS format and include the title, publication, keyword, year, and name of the researcher.
3. Improved search results for articles found on the basis of terms that have been set and saved in the RIS file for further analysis.
4. Collecting preliminary statistical data: At this stage, researchers check the important components of the article. If there are errors, the data will be updated.
5. Data analysis: This bibliometric research performs analysis with the help of VOSview. At this point, co-authorship, co-occurrence, and citation are three important things to bear in mind. VOSviewer will help in visualizing objects that have differences.

4. RESULTS AND DISCUSSION

Research results from E-Commerce Bibliometric Analysis in Business Development are published or lost in Google Scholar-indexed journals.

Results and Discussions contain research results and findings as research data. It is expected that this section provides a scientific explanation that logically explains the reasons for the research, with a clear, complete, detailed, integrated, systematic, and continuous description.

Researchers collect scientific information, especially that related to research issues, in a systematic and rational way. Both quantitative and qualitative descriptions can be used to discuss research findings. In practice, this section can be used to compare current research findings with previous researchers' findings related to this study. Scientifically, these findings can be new discoveries or improvements, confirmations, or rejections of interpretations of previous scientific phenomena.

To make the research easier to understand, the results are presented in complete and clear forms, such as tables, curves, graphs, photos, or other forms as required. When reading the research results in this format, the reader does not need to look for relevant information from the discussion. At the end of this section, the weaknesses and advantages of the system are discussed in depth.

Section 4 can cover results such as:

1. Network implementation, interface, and prototype.
2. Performance testing, quizzer testing

Table 2. table title journal

Point of View	JWB	JBUSRES	JOBR	JOBR	SENSORS
Publisher	Elsevier	Elsevier	Elsevier	Elsevier	MDPI
First published	2020	2021	2020	2021	2014
Last published	2021	2022	2023	2023	2016
Scopus Indexed	No	No	No	No	Yes
Web of Science Indexed	Yes	Yes	No	No	No
Impact factor by SJR	1.959	1.763	-	0.72	0,76

Table 3. Metrics information of selected journals

Metrics data	JWB	JBUSRES	SENSORS
Publication years	2022-2022	2019-2023	2019-2023
Citation years	1	4	4
Papers	5	111	200
Citations	109	7346	5126
Cites/year	109.00	1836.50	1281.50
Cites/paper	21.80	66.18	25.
Authors/paper	31.97	3.48	3.52
h-index	4	43	21
g-index	5	85	38
hI,norm	3	26	13
hI,annual	3.00	6.50	4.33
hA-index	4	38	13

Create Map

Verify selected authors

Selected	Author	Documents	Total link strength
<input checked="" type="checkbox"/>	liu, y	11	17
<input checked="" type="checkbox"/>	shu, h	6	17
<input checked="" type="checkbox"/>	wang, y	18	17
<input checked="" type="checkbox"/>	wang, s	13	16
<input checked="" type="checkbox"/>	zhang, y	16	16
<input checked="" type="checkbox"/>	hu, y	6	15
<input checked="" type="checkbox"/>	zeng, d	7	15
<input checked="" type="checkbox"/>	li, s	10	14
<input checked="" type="checkbox"/>	liu, w	9	14
<input checked="" type="checkbox"/>	mei, t	5	14
<input checked="" type="checkbox"/>	liu, d	7	13
<input checked="" type="checkbox"/>	liu, x	15	13
<input checked="" type="checkbox"/>	peng, c	8	12
<input checked="" type="checkbox"/>	yan, c	5	12
<input checked="" type="checkbox"/>	li, h	10	11
<input checked="" type="checkbox"/>	wang, l	6	11
<input checked="" type="checkbox"/>	wang, z	13	11
<input checked="" type="checkbox"/>	li, z	8	10
<input checked="" type="checkbox"/>	wang, n	5	10
<input checked="" type="checkbox"/>	yan, w	7	10

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Figure 2. Shows Some Groups

Figure 2 shows some groups with purple, blue, green, and yellow colors. Some of the most common group words are shown throughout the article. This cluster indicates that there are currently three categories of articles. Table 4 contains additional information.

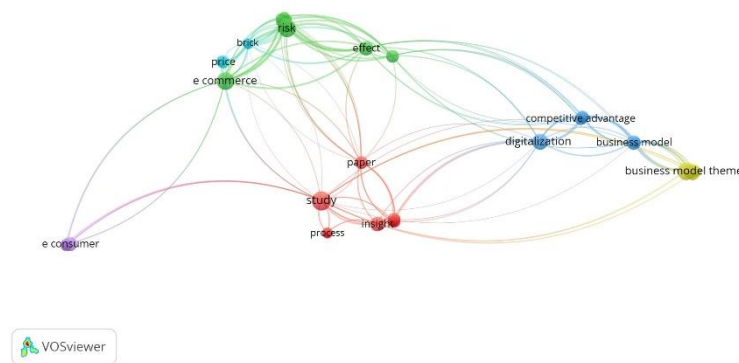


Figure 3. Show a Visualization

We can examine the responses obtained directly from the group to determine current trends in e-commerce bibliometric analysis research in business development. Figure 2 shows a visualization of article density in Cluster 1, which is the most commonly used.

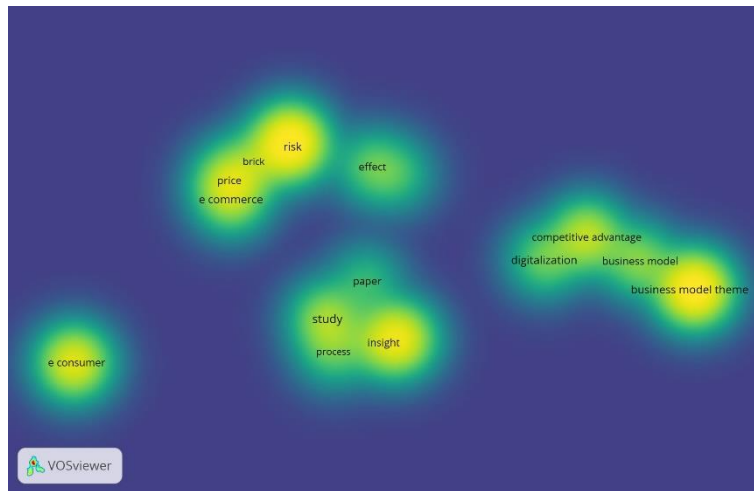


Figure 4. Show a Density

Table 4. Clusters And Keywords Therein

Cluster	Total items	Most frequent keywords (occurrences)	Keywords
1	10	study (7)	agile co creation process , customer, digital servitization , insight , international e commerce , manufacturing firm , micro service innovation approach , paper , proces , study
2	9	e commerce (6), risk (6)	competition , delivery , e commerce , effect , payment , payment reversibility , postal quality , risk , seller
3	7	business model (4)	business model , competitive advantage , digitalization , firm, network effect , sustainability , sustainable competitive advantage
4	5	business model theme (6)	business model theme , evolution, framework, literature , value creation
5	5	e consumer (4)	delivery option , delivery service , e consume, greater satisfaction , reuse intention
6	5	price (3)	amazon , amazon fresh , brick , offline , price

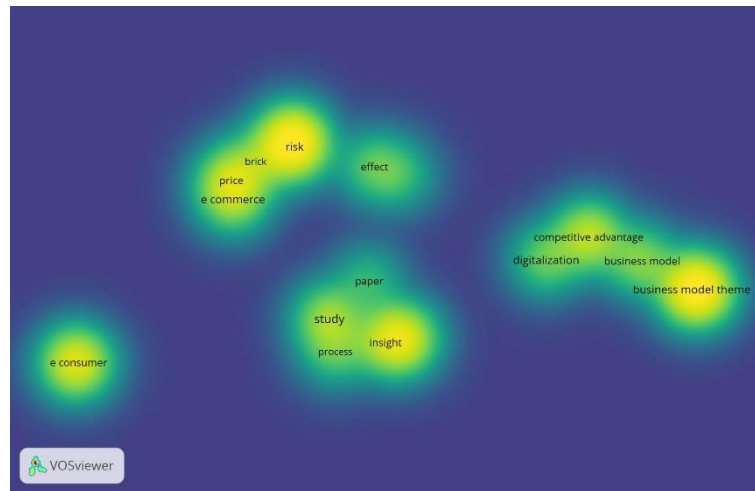


Figure 5. Density Visualization Map Of Keyword

Cluster 1, one of these mapping results, is present at least in keywords with the title "E-Commerce Bibliometric Analysis in Business Development." Besides, some words, like "risk," "e-commerce," and so on, are rarely found in any keyword group. In other words, current research is still a long way from future trends, which will of course be adapted to the conditions of the world today and in the future.

CONCLUSION

A bibliometric analysis of e-commerce business development shows trends, research focus, and contributions from previous research. These results provide strategic insights for companies by identifying key issues, collaboration, and innovation opportunities. By learning about the latest research results, filling gaps, and associating literature with business practices, industry players can make smarter decisions when making company development plans.



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