Pakistan Journal of Life and Social Sciences

Clarivate Web of Science <u>www.pjlss.edu.pk</u>



https://doi.org/10.57239/PJLSS-2025-23.1.00116

#### **RESEARCH ARTICLE**

# Game Marketplace Research Trends: A State of the Art Bibliometric Analysis

Mohammad Fadhlur Rahman<sup>1,\*</sup>, Tanti Handriana<sup>1</sup>, Dien Mardhiyah<sup>1</sup>, Satria Fadil Persada<sup>2</sup>, Reny Nadlifatin<sup>3</sup>, Mohammad Razif<sup>4</sup>, Ardvin Kester S Ong<sup>5</sup>, Michael Nayat Young<sup>5</sup>

<sup>1</sup>Faculty of Economics and Business, Universitas Airlangga, Surabaya 60286, Indonesia

<sup>2</sup>Entrepreneurship Department, BINUS Business School Undergraduate Program, Bina Nusantara University, Jakarta, Indonesia

<sup>3</sup>Department of Information Systems, Institut Teknologi Sepuluh Nopember, Kampus ITS Sukolilo, Indonesia

<sup>4</sup>Environmental Engineering Department, Institut Teknologi Adhi Tama Surabaya, Indonesia <sup>5</sup>School of Industrial Engineering and Engineering Management, Mapúa University, Manila, Philippines

ARTICLE INFO	ABSTRACT
Received: Nov 16, 2024	This study examines research patterns in the game marketplace as a crucial
Accepted: Jan 10, 2025	factor for achieving success in the gaming industry. This research utilized a bibliometric analysis of 1000 publications obtained from Scopus from 1973
	to 2025. The bibliometric examined notable trends and collaborative trends
Keywords	in gaming marketplace research within the business domain. Additionally, supporting analyses like annual contributions, three-field analysis, temporal
Game Marketplace Research	source production, contributing countries, word clouds, clusters, networks,
Trends	and theme evaluations are integrated to augment the comprehension of the
Bibliometric Analysis	current status of gaming marketplace research. The bibliometrics indicate
	that the study trends in the game marketplace for 2024 are linked to supply
	chain management, blockchain, marketplaces, e-commerce, and commerce
*Corresponding Author:	platforms. There has been a consistent increase in the game marketplace
mohammad.fadhlur.rahman- 2021@feb.unair.ac.id	research since its initial identification. The examined countries, including the
	USA, China, the UK, India, and Canada, represented the top five nations in
2021@icb.unun.uc.iu	scientific production related to gaming marketplace research. Indonesia
	ranks seventh in terms of scientific production. The most prevalent keywords
	in the word cloud are game theory, commerce, electronic commerce, sales,
	competition, and others. This study theme discovered ten prominent cluster
	networks. The most prominent thematic map identified pertains to
	automotive themes. This investigation verifies the persistence of research
	trends and trajectories inside the game marketplace. This approach aids both
	researchers and the gaming industry identify and leverage pertinent
	research advantages.

#### **1. INTRODUCTION**

The game marketplace, as a platform for game support, has garnered interest in the research domain, with considerable potential to enhance efficiency and effectiveness within the gaming business. The existence of game marketplaces is essential to the gaming business, leading to significant global academic interest in platform development. From several viewpoints, a gaming marketplace can facilitate proper transactions for gamers (Abidin et al., 2024; Rachmadi et al., 2019; Rahman et al.,

2020; Wartono & Segarwati, 2022). Furthermore, the advancement of internet technology to support players is enhancing the ecosystem, resulting in the emergence of definitive platforms known as game markets. The presence of blockchain and artificial intelligence facilitates the diversification of games improved through online platforms. Therefore, a comprehensive analysis of research trends in the game marketplace is essential.

Despite the advancement of game marketplace research, the context's expansion remained fragmented. The reason for this is that the various technologies and platforms have resulted in a unique case to case scenario. Nevertheless, the research trail is undoubtedly beneficial for both scientists and industries to employ through the application of similar methods and cases. In order to address this requirement, the current study aims to elaborate on the current state of progress, as well as the trends and potential future emphasis. In order to facilitate this research objective, a bibliometric analysis is conducted to understand the level of research progress in the game marketplace. Within the business domain, the bibliometric investigated noteworthy trends and collaborative opportunities in gaming marketplace research. In addition, to enhance the understanding of the current state of gaming marketplace research, supporting analyses such as annual contributions, three-field analysis, temporal source production, contributing countries, word clouds, clusters, networks, and theme evaluations are incorporated.

The remainder of this article is broken down into three sections: methodology, results, and conclusion. The methodology will delineate the data collection process and the instruments that will be used to analyze the data. The findings broaden the scope of information concerning bibliometric analyses. The conclusions summarized the results and addressed the research's objective. Additionally, the conclusion debates the limitations and prospective research directions.

# 2. METHODOLOGY

### 2.1. Research Instrument

The present research elaborates the scholars track on game marketplace development by using bibliometric analysis. Bibliometric has been proven to be able in analyze the various scientific publications (Afia et al., 2024; Asitah et al., 2024; Maulana et al., 2024; Putri et al., 2023). This research utilized the reliable Scopus indexed article as the main source for analysis. The data was taken in the late december 2024. The specific keywords in understanding was "game" and "marketplace". A total of 1000 documents were identified from the first identified year 1973 to early 2025. The bibliometrics analyses was conducted by r-software package biblioshiny (Aria & Cuccurullo, 2017).

The framework of this research can be seen in Fig 1. Subsequent to the extraction of data from the Scopus database in CSV format, the data served as input for Biblioshiny. This research integrated several critical analyses, including game marketplace trends, annual contributions, three-field analysis, temporal source production, contributing countries, word clouds, clusters, networks, and theme evaluations, to enhance the understanding of the current state of gaming marketplace research.

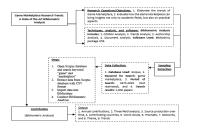


Figure 1. Research method for game marketplace bibliometrics

# 3. RESULT

# 3.1. Descriptive statistics

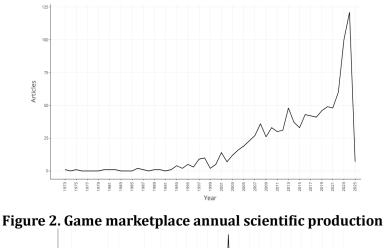
Table 1 presents the descriptive statistics of the data analysis. The data was deemed located between 1973 and early 2025. There were 683 sources discovered that mention the game marketplace. One thousand documents were identified, with an annual growth rate of 3.81 and an average age of 9.86 percent. The documents were referenced with an average of 18.39 and had 34,105 citations. The study articles on the game marketplace contain 4,375 keywords and feature 2,327 authors. The materials comprised 540 journal articles and 301 conference papers.

Desription	Result
MAIN INFORMATION ABOUT DATA	
Timespan	1973:2025
Sources (Journals, Books, etc)	683
Documents	1000
Annual Growth Rate %	3,81
Document Average Age	9,86
Average citations per doc	18,39
References	34105
DOCUMENT CONTENTS	
Keywords Plus (ID)	4375
Author's Keywords (DE)	2391
AUTHORS	
Authors	2327
Authors of single-authored docs	194
AUTHORS COLLABORATION	
Single-authored docs	247
Co-Authors per Doc	2,73
International co-authorships %	19,3
DOCUMENT TYPES	
article	540
book	26
book chapter	68
conference paper	301
conference review	27
data paper	1
editorial	4
note	3
retracted	1
review	28
short survey	1
ions	

#### Table 1. Descriptive result

#### **3.2.** Annual contributions

From the standpoint of annual scientific output, the quantity of papers remained rather stable until the early 1990s (see figure 2). A consistent increase was observed from the 2000s. The most substantial increase in publications was observed between the years 2021 and 2024. The largest number of publications was recorded at 121 documents in 2024. The annual scientific citations exhibited considerable fluctuations (see figure 3). The lowest average citation recorded was 0.1, while the highest was 8.9 in the year 2003.



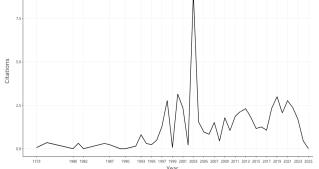


Figure 3. Game marketplace annual scientific citations

#### 3.3. Three field

The focus of the three-field study in this research is to examine the relationship between countries of production, keywords, and publication sources. Figure 4 illustrates the dominance of two countries: China and the USA. The keywords included game theory, commerce, sales, electronic commerce, and others. Lecture Notes in Computer Science was identified as the predominant source of publications (refer to Figure 5).

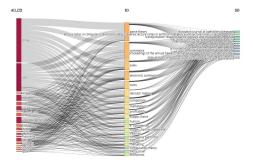


Figure 4. Game marketplace three field plot

#### 3.4. Annual source production

The current research emphasizes the six identified sources of publication pertaining to the game marketplace. Figure 5 illustrates that the publishers include "Electronic Commerce Research and Applications; European Journal of Operational Research; International Journal of Production Economics; Lecture Notes in Computer Science; Management Science; and Marketing Science." The

initial years of volatility were noted as beginning in 1996. The computer science lecture notes have always been regarded as the most exemplary over the years.

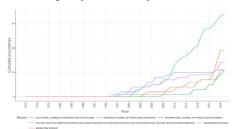


Figure 5. Game marketplace source production over time

### **3.5. Contributing countries**

The research given focused on the publications of five countries relevant to the game marketplace. Figure 6 illustrates that the publishers include Canada, China, India, the United Kingdom, and the USA. The initial years of volatility were noted as beginning in 1973. The USA is recognized as the leading producer over the years.

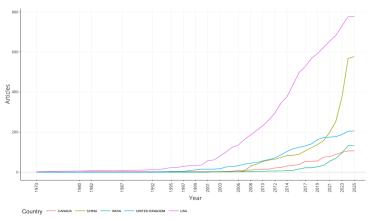


Figure 6. Game marketplace contributing countries

# 3.6. Wordcloud

The analysis of the game marketplace study identified numerous significant terms relevant to the field. Figure 7 displays the identified keywords: "game theory; commerce; internet; electronic commerce; marketplaces; sales; and costs." The identified keywords indicate a research focus on technology and business.



Figure 7. Game marketplace wordcloud

# 3.7. Thematic

The themes of gaming marketplace research were categorized into four groups: "niche themes, motor themes, basic themes, and emerging or declining themes." Figure 8 illustrates that the identified

keywords predominated in the motor themes. The category of automotive themes was identified as the most prominent.

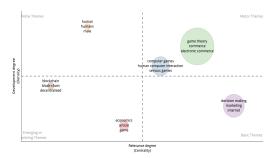


Figure 8. Game marketplace thematic map

#### 3.8. Network

The game marketplace research network was categorized into five groups, distinguished by the colors purple, blue, green, orange, and red. According to Figure 9, the purple group was predominant, succeeded by red, blue, and green. The orange color solely pertains to the e-commerce component.

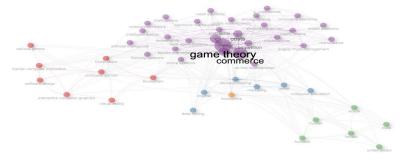


Figure 9. Game marketplace thematic map

# 3.9. Trends

Figure 10 illustrates the terms utilized throughout time. Each detected term encompasses a range of years. The density of the circle reflects the frequency of usage during specific years. In 2024, the emphasized keywords were: "supply chain management; blockchain; marketplaces; e-commerce; and commerce platforms."

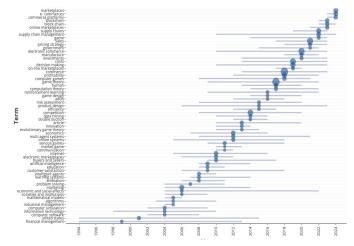


Figure 10. Game marketplace thematic map

# 4. CONCLUSIONS

The current study has elucidated the evolution of the game marketplace within the research domain throughout time. The bibliometric analysis of 1,000 documents from Scopus, spanning from 1973 to early 2025, revealed numerous factors influencing trends in the game business. The popularity of game marketplace research surged in 2024, however the citation dates back to 2003. The gaming marketplace research was rigorously conducted by the USA, Canada, United Kingdom, China, and India. Lecture notes in computer science have been regarded as the most esteemed over the years leading up to 2024. The report provides insights regarding the utilization of IT-based technologies, including electronic commerce and sales, among others. The network study is categorized into four distinct categories, with motor themes predominating the chronology.

Notwithstanding the favorable results concerning the gaming marketplace, deficiencies persist in the literature that necessitate additional investigation. A disadvantage of this study is its dependence on data from Scopus, which may not include all pertinent research in the gaming marketplace domain. Significant papers or research from local journals or non-academic sources may have been disregarded, so constricting the obtainable perspective. Consequently, it is advisable for future study to use supplementary data sources to achieve a more thorough comprehension of the prevailing trends and difficulties. This study facilitates additional exploration and promotes extensive discourse on company adaptability and innovation in response to obstacles.

### Open Data

The raw data can be accesed on: <u>https://intip.in/gamemarketplacebibliometric</u>

#### Acknowledgements

The project received sponsorship from Mapúa University's Directed project for Innovation and Value Enhancement (DRIVE).

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## **BIOGRAPHIES OF AUTHORS**

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	Mohammad Fadhlur Rahman is a doctoral candidate in the Faculty of Economics and Business, Universitas Airlangga. He earned his master's degree in the Master of Technology Management (MMT) program administered by the Department of Technology Management at Institut Teknologi Sepuluh Nopember in Indonesia. His principal research interests
	encompass consumer behavior and digital marketing.
	<b>Tanti Handriana</b> is a faculty member and the Head of the Doctoral
	Program in Management Science at the Faculty of Economics and Business,
	Universitas Airlangga. She earned her PhD degrees from the Postgraduate
	Program at Gadjah Mada University in Indonesia. Her key research
	interests encompass Green marketing, Relationship marketing, Green tourism, and Halal products.
	<b>Dien Mardhiyah</b> is a faculty member and the Head of the Management
	Department's Study Program at the Faculty of Economics and Business,
	Universitas Airlangga. She earned her PhD degrees from the Postgraduate
	Program at Gadjah Mada University in Indonesia. Her key research
	interests encompass Digital Marketing, Marketing Ethics, Halal Products,
	and Relationship Marketing.
	Satria Fadil Persada is a faculty member in the Entrepreneurship
	Department of Bina Nusantara University (BINUS) in Indonesia. His
	principal areas of study encompass consumer behavior, marketing
	management, and business research. By the conclusion of 2024, he will
	have contributed to 177 indexed Scopus papers, a significant number of
	which have appeared in esteemed journals.
	<b>Reny Nadlifatin</b> serves as the Head of the Technology Management Study Program at ITS in Indonesia. Her principal areas of study encompass
	consumer behavior, marketing management, and technological adoption.
	By the conclusion of 2024, she will have contributed to 177 indexed Scopus
	papers, a significant number of which have been published in esteemed
	journals. Mohammad Pazific a faculty member at the Institut Telepologi Adhi Tema
	<b>Mohammad Razif</b> is a faculty member at the Institut Teknologi Adhi Tama Surabaya (ITATS) in Indonesia. His principal areas of study encompass
	environmental management. By the conclusion of 2024, he will have
	contributed to 95 indexed Scopus papers, a significant number of which
	have appeared in esteemed journals.
	Ardvin Kester S Ong a the Head of Engineering Management at Mapua
	University in the Philippines. In 2024, he was acknowledged as one of the
	top 2% of scientists worldwide. By the end of 2024, she will have made
	important contributions to 155 indexed Scopus papers, many of which are
	published in esteemed journals.
	Michael Nayat Young serves as the Dean of the Industrial Engineering and
	Engineering Management department at Mapua University in the
	Philippines. His principal research concentrates on consumer behavior and
	financial behavior. By the end of 2024, she had significantly contributed to
	137 indexed Scopus papers, several of which attained high q-rankings in
	esteemed journals.