INDERSCIENCE PUBLISHERS
Linking academia, business and industry through research

International Journal of Indian Culture and Business Management

ISSN online: 1753-0814 - ISSN print: 1753-0806
https://www.inderscience.com/ijicbm

E-payment: a bibliometric analysis and systematic literature review

Arti Gaur, Sanju Verma

DOI: 10.1504/IJICBM.2023.10058481

Article History:

Received:	12 February 2023
Last revised:	14 February 2023
Accepted:	17 May 2023
Published online:	22 January 2025

E-payment: a bibliometric analysis and systematic literature review

Arti Gaur and Sanju Verma*

Department of Business Administration,
Chaudhary Devi Lal University,
Sirsa, Haryana, India
Email: artigaur@cdlu.ac.in
Email: vermasanjana1813@gmail.com
*Corresponding author

Abstract: In today's world, everything is digital, from payments to purchasing to manufacturing. E-payment research has gained traction in recent years. Biblioshiny and VOSviewer tools were used to visualise the data and demonstrate the link using a sample of 1,274 articles obtained from the Scopus database. The goal of the current study is to pinpoint significant players, important geographies, and existing trends while also outlining potential future research avenues in the domain of e-payments. The study uses bibliometric, network, and content analysis in addition to a systematic examination of the literature. To determine the most influential papers and authors, citations and PageRank are used. To determine how the research area is structured intellectually, a co-citation network is developed. Using bibliometric tools, three clusters of research papers have been discovered, and the papers in the clusters have been analysed via content analysis. This study helps to present the development of the scientific literature on e-payment. In addition to identifying research gaps, the study proposes two actionable future research directions.

Keywords: e-payment; co-citation; systematic literature review; bibliometric analysis; network analysis.

Reference to this paper should be made as follows: Gaur, A. and Verma, S. (2025) 'E-payment: a bibliometric analysis and systematic literature review', *Int. J. Indian Culture and Business Management*, Vol. 34, No. 1, pp.45–72.

Biographical notes: Arti Gaur is currently serving as a Professor in Department of Business Administration, Chaudhary Devi Lal University, Sirsa, Haryana. She has a multifarious background in teaching and research fields spanning over two decades with having an expertise in the field of management (finance, HR, banking and general management). She has published more than 100 research papers in journals of national and international repute. She has authored six books inclusive competitive as well as course books.

Sanju Verma is pursuing her PhD in Finance at Chaudhary Devi Lal University, Sirsa, Haryana. She holds the distinction of being a Qualified Junior Research Fellow in Commerce, highlighting her expertise in the subject. She holds a patent titled 'System for Processing Banking Transactions Using Blockchain for Data Security', highlighting her innovative contributions to the financial technology domain. She has published numerous research papers in esteemed international and national journals, as well as in edited books.

1 Introduction

Technological innovation generates new momentum. ICT is also essential for society's development and the digitisation of the economy. Everything has gone digital, from payments to purchasing to manufacturing. With the development of the internet, consumers now have more convenience to conduct their transactions anywhere and at any time due to online banking services and other mobile applications (Ranjith et al., 2021). India's e-payment system is going through a significant transition. To speed up the understanding, accessibility, and adoption of digital technology, the Indian government has also taken action by initiating the 'Digital India' program. The Indian government, businesspeople, and citizens are currently looking into the prospect of transitioning to a cashless economy (Acharya et al., 2019). The 'cashless economy' is a recent catchphrase that many economies are aiming for. Eminent economists consider it to be the best model of the contemporary economy. It is one of the hottest and most recent concepts. An economy that uses plastic money or digital methods like credit cards, debit cards, e-wallets, and electronic fund transfers like Unified Payments Interface, Aadhar-based payment system, etc. is identified as a cashless economy. As of September 2018, the Reserve Bank of India reported that 990 million and 44 million debit and credit cards, respectively, were in use, indicating a predilection for contactless operations (Brahma and Dutta, 2018). Our esteemed prime minister is actively pursuing his digitisation plan. The Indian government continued to promote financial inclusion by tying people's bank accounts to their pay checks and encouraging the opening of bank accounts connected to Aadhaar accounts as part of the Jan Dhan scheme. Every sector, including business, government organisations, agriculture, and private associations, needs to select cashless transactions to cut down on operational costs such as printing money and supply costs (Gupta and Pahwa, 2020). Electronic payments are becoming a necessary aspect of life to make daily tasks easier, and people can benefit from this system by using it. Nowadays, the term 'electronic payments' is in high demand. E-payment systems make it convenient to begin trading that does not call for close personal contact, thus there is no longer a need to exchange currency. Customers can choose from a wide variety of electronic payment choices nowadays. Credit cards, debit cards, online banking, etc are such examples. Customers can pay more conveniently thanks to electronic payment methods. The payment is processed electronically through electronic payment systems, which is a much faster and more effective method. For consumers to conduct their business transactions effectively, reliably, and securely, new payment mechanisms are required since the Internet has become more popular and e-commerce operations (Kulathunga and Ekanayake, 2019). In the long run, the country's economic model and financial structure will be influenced by the user's preferred payment method (Shane et al., 2022). Knowing the significance of electronic payments allows us to conclude that research on e-payment is very valuable. As far as we know, only one work has been published on e-payment bibliometrics, and it only used information from the Web of Science (WoS) database, neglecting the Scopus database. People like making contactless payments nowadays because of the coronavirus period, and young people also appreciate the advancement of technology. This suggests the need for a comprehensive analysis of electronic payments using a systematic literature search and bibliometric study using the Scopus database to determine the intellectual framework in the research area and to establish bridges for prospective fields of study.

2 Literature review

The advancement of technological innovation has resulted in the electronification of several types of business operations, necessitating a requirement to optimise the procedure for making payments (Nathani et al., 2022). The nation has seen a tremendous expansion in the utilisation of electronic payments in the past few years. It is the transferring of value from a particular payment account to another via an electronic device such as a mobile phone, point-of-sale system, computer, etc. The real-time gross settlement, national electronic fund transfer, mobile wallets, and plastic card payments are the most frequent modes of digital payment utilised by the inhabitants of the entire nation. E-payment technologies used for various types of payments or operations have created a favourable environment for customers (Anisha et al., 2022). The online payment method has developed multiple times, from the beginning of the immediate payment service by the National Payments Corporation of India in 2010 to the unveiling of the Unified Payment Interface in 2016 (Pandey, 2022). The technology infrastructure remains critical for the efficient delivery of electronic financial offerings internationally. Furthermore, it relies on a well-functioning ICT network and a stable electrical supply. A functioning electronic payment system is also characterised by broad coverage, excellent performance, and low-cost consumer data readily available from state entities (Pazarbasioglu et al., 2020). Payments can be made electronically using mobile phones, card-based payments, and a variety of other methods. There has been researched on mobile payment adoption, such as by Abdullah and Khan (2021), who did a comprehensive and bibliometric analysis on it. The study relied on 56 papers published between 2005 and 2020. The findings of the investigations revealed that research in the field of m-payment is gaining popularity. Kumar and Yadav (2022) offered a comprehensive overview of m-payment research. The paper examined 250 articles from the ScienceDirect, EBSCO, and ProQuest databases from 2007 to 2021. The study found that technical and behavioural factors influence m-payment uptake. Tounekti et al. (2022) conducted the only study on e-payments. In their article, they used 177 academic papers to evaluate usage patterns, payment frameworks, technological acceptance models, payment interfaces, and electronic and mobile payments. The information was obtained from the WoS and processed using the Biblioshiny software. A review of the literature identifies gaps in knowledge in the subject of study and assists scholars in looking into unexplored research areas. In Tounekti et al. (2022) study, there is a lack of work such as structure literature review, cluster analysis, and content analysis. As a result, the current study used a mix of systematic literature review and bibliometric analysis methodologies to provide a thorough overview of the field of study, which jointly aided in gaining an understanding of the intellectual framework.

2.1 Justification for the study

The use of money as a medium of exchange is an intermediary tool that makes it easier to sell and purchase. When a payment is made electronically, it is referred to as an ’e-payment’. The Indian government and RBI continually emphasise the use of electronic tools like net banking, credit cards, debit cards, and other similar tools to conduct cashless transactions. The world is changing into a society that is more empowered by technology due to the rapid uptake of e-payment. When researching works on e-payment

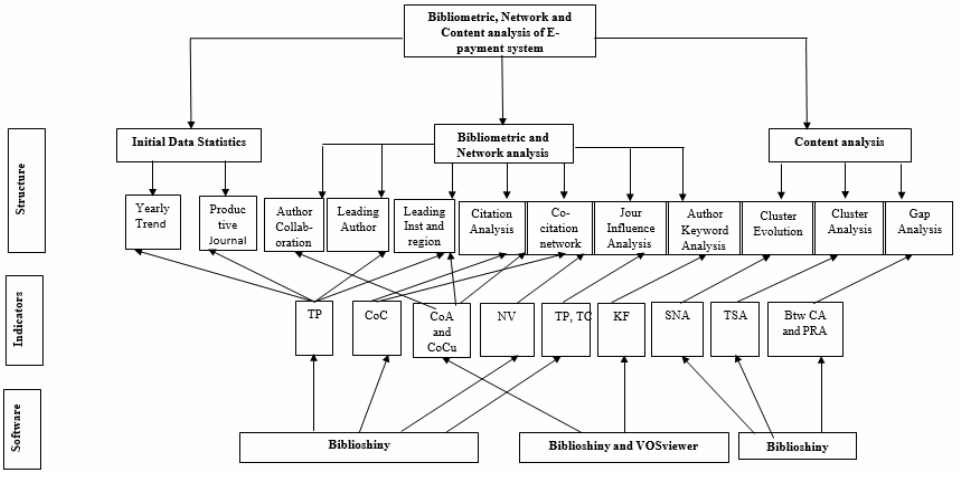
trend analysis, just one paper was discovered that provided an overview of this integration, the literature it is related to, and the directions for further fact-finding. In their research, Tounekti et al. (2022) principally summarised extensive national and international literature on electronic and mobile payments. The emphasis of this study is on electronic payments. In contrast to other analyses, mixture of network analysis, bibliometrics, and a structured literature review used as the research approach in this work allowed for the identification of the creative framework and the development of a comprehensive description of the topic area. As seen in Table 1, there are numerous additional significant discrepancies between our findings and those of Tounekti et al. (2022) as well. The comparison between the present research work and that of Tounekti et al. (2022) was more accurately analysed in Table 1.

The following e-payment objectives were therefore addressed in order to resolve the disparities revealed in the aforementioned study:

1 To investigate the theoretical foundations of this field of research

2 To investigate the broadly accepted scientific theme.

Figure 1 Design of the study



Notes: TP = total publications, TC = total citation CoC = co-citation count, CoA = co-authorship, CoCu = collaboration of countries, KF = author key-word frequency, AJG = academic journal guide, SNA = social network analysis, NV = network visualisation, BtwCA = between centrality analysis, PRA = page rank analysis, TSA = thematic structure analysis.

Source: Author's elaboration

To address the aforementioned problem, researchers have used the bibliometrics method. According to Castriotta et al. (2019) and Block and Fisch (2020), it is the best method for analysing the conceptual framework of an investigative situation. Hence, as illustrated in Figure 1, the technique and various components of bibliometric, network, and content analysis are covered in the proposed investigation.

Table 1 Comparison between old and new studies

Basis of difference	*Tounekti et al. (2022)*	*Current Study*
Search string	Looking of 'electronic payment system' or 'mobile payment system' or 'e-payment' or 'm-payment' or 'payment framework' or 'payment interface' and 'preference' or 'acceptance' or 'satisfaction' or 'technology acceptance model' with no special focus on closely associated words	Filled-to-the-brim searches for 'Electronic Payment' and relevant keyword terms like 'Digital Payment' or 'Online Payment' or 'Cashless Payment' or 'e-banking' or 'Internet Banking' or 'Banking Cards' or 'Mobile Banking'
Database	Web of Science	Scopus
Software used	Biblioshiny	Two software were used i.e., VOSviewer and Biblioshiny
Focus	This study uses 177 academic publications to assess usage patterns, payment frameworks, technical acceptance models, payment interfaces, electronic and mobile payments, and payment interfaces.	With the help of 1,274 papers, we analysed the evolution and conceptual structure of the field by focusing on all facets of e-payment.
Approach	A quick investigation that illustrates the research area while taking into consideration keywords, author occurrence, bibliographic coupling, and co-citation.	A thorough search of 'e-payment', together with the previously mentioned associated terms, as well as a discussion of trends, with a structure literature review, bibliometric, network, content, CoC, and cluster analysis.
Results	The classification of journals based on impact, author co-occurrence, co-citation, keyword analysis, and its occurrence are a few of the important components of the electronic and mobile payment systems that have been identified.	Vital conclusions: leading authors, publishers, and journal contributors; geographical areas; the most cited and co-cited articles; the co-citation network; cluster identification; thematic field of expertise; and author keyword analysis are some of the other factors taken into account.
Literature Gap and Road to the Future	Absence of Work like structure literature review, cluster analysis, content analysis etc. in electronic and mobile payment research	The main research gaps in the current study are a lack of cross-country and multi-country investigations and a lack of database mergers. Future scholars might therefore discuss the gap revealed by the literature now in existence.

3 Research methodology

Bibliometric analysis was employed to research the literature on the e-payment system, coupled with co-citation counts, keywords, and co-authorship (Xu et al., 2018; Cisneros et al., 2018). Co-citation is the term used to describe how frequently papers are mentioned jointly in other writings (Small, 1973). The more co-citations and the stronger

the co-citation intensity, the more likely two texts are significantly connected. Hotspots of disciplines can be identified in the keyword analysis by noting the frequency with which terms appear (Huai and Chai, 2016). Multiple-author writings were chosen as a sign of collaborative involvement within a topic because co-authorship is common in the area (Newman, 2001, 2004; Melin and Persson, 1996; Katz and Martin, 1997; Wagner and Leydesdorff, 2005). According to the idea put forth by Newman (2001) and Glänzel and Schubert (2004), co-authorship is one of the most well-known and well-documented forms of scientific teamwork, and the outcomes of these connections form a 'co-authorship network'. In order to identify the most common themes in this area, it is helpful to use CoC (conceptual links among papers), keyword analysis (hot fields), and co-authorship analysis (partnerships within a field). The Biblioshiny program, which was developed with the help of R and VOSviewer, is used in this paper. Researchers used this program because it offered an interface for secure data input, processing, collection, and screening from collection frames like Scopus. Instead of using a trial-and-error approach, a structured literature review aims to extensively investigate and uncover publications in order to conduct an empirical review of the literature and identify potential open issues (Tranfield et al., 2003). Different phases were taken to conduct the structured literature review: picking the appropriate specific keywords, selecting the papers to analyse using specific inclusion and exclusion criteria, and reviewing the published documents. An organised literature study led to the discovery of pertinent papers, which were then subjected to bibliometric and textual analysis. There were numerous document analyses, citation analyses, co-citation network analyses, and bibliometric analyses undertaken. The method used in this article's conceptual approach is shown in Figure 1 for a clearer understanding. The figure also depicts the paper's structure, calculations, indications carried, and instruments employed.

3.1 Determining the most relevant search terms

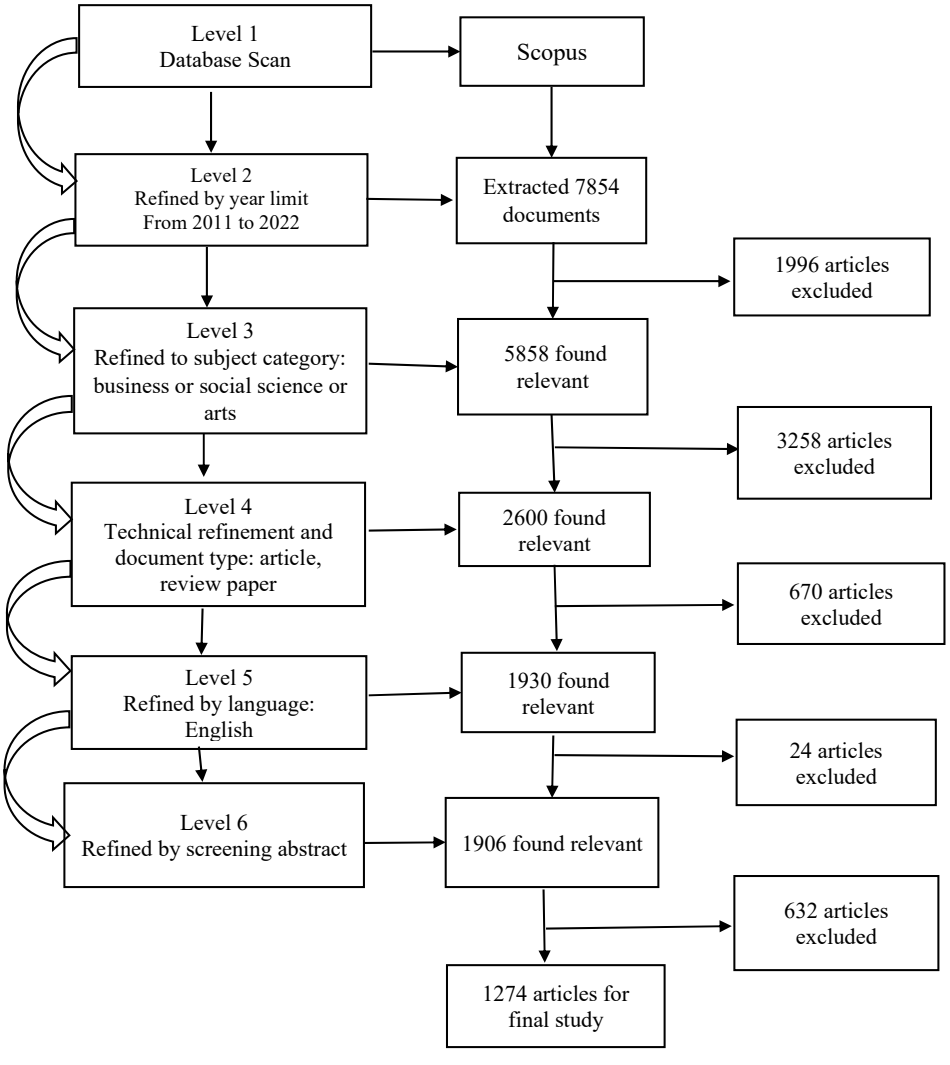
The current paper has covered the topic of e-payment. To ensure that this term contained all of the phrases, researchers searched a string with related keywords. The document ultimate search query included TITLE-ABS-KEY ('E-Payment' OR 'Electronic Payment' OR 'Digital Payment' OR 'Online Payment' OR 'Cashless Payment' OR 'E-banking' OR 'Internet Banking' OR 'Banking Cards' OR 'Mobile Banking'). To classify the linked keyword investigation, previous literature studies in the same field were taken into consideration. The ability of the search strings to detect multiple known primary research confirmed them. A preliminary search was carried out using a list of wide target keywords, and numerous relevant publications were identified. Before beginning the review, the search string was validated using the collection of works mentioned by Legris et al. (2003). Previous literature studies on related issues were examined in order to identify suitable search terms.

3.2 Criteria for limiting the search parameters

On 4 October 2022, an early probe was tracked in the Scopus database using the established search string. Researchers discovered 7,854 documents after combing over the full subject in the databases indicated before. The combined removal and insertion principles result in the final stated quantitative figure of 1,274 documents. Following that, researchers went through six phases to select the best papers for the final evaluation

(Figure 2). The time frame was stretched from 2011 to 2022. The current study's document types include articles and review articles. Researchers discovered publications connected to business management, social sciences, and the arts among 1,274 documents. To expand the scope of the investigation, documents resulting from the search terms were evaluated using abstract reading. Then information that wasn't relevant to the present circumstance was eliminated. Additionally, non-English language articles were excluded from the research. Consequently, 1,274 papers were determined to be appropriate for detailed review.

Figure 2 Technique used for delimiting publications



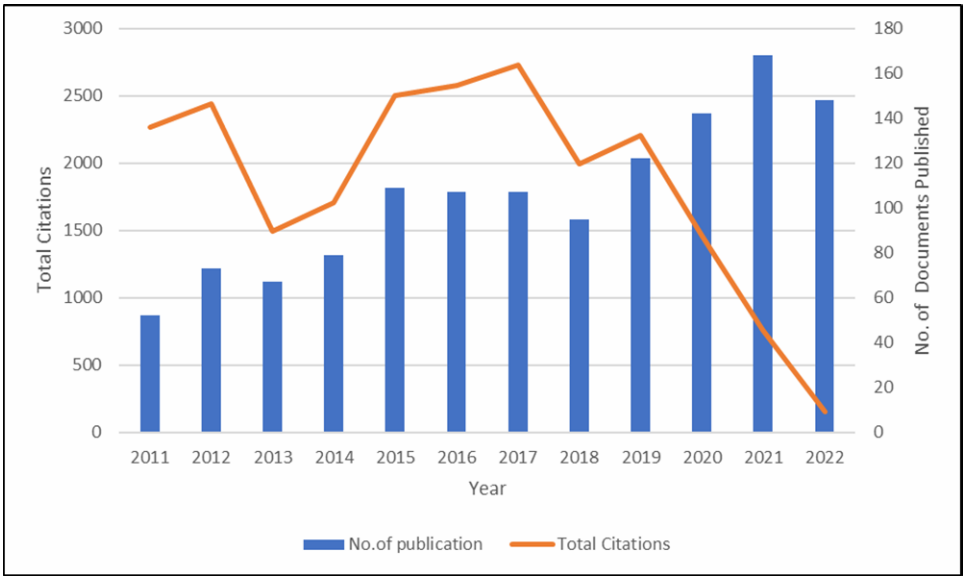
3.3 Statistics based on the initial data

A descriptive study of 1,274 articles was performed to determine the general publishing pattern towards this subject. To answer our first research question, we looked at the publication pattern in terms of cumulative articles by year, nation, journal, and institution.

3.3.1 Trends in annual publication and citations

The pattern of published papers and citations by year across the observation period is shown in Figure 3. We understand that the various articles published in 2021 has climbed to 168, the biggest number of publications among all years. And, as the current year progresses, the publication of documents declines in 2022. Looking at the amount of citations received, the work published in 2012 received a high number of 2,441. Citations fall from 2019 to 2022 because recent published papers may earn less citations due to the short time span.

Figure 3 Trends in annual publication and citations (see online version for colours)



Source: Authors elaboration

3.3.2 Leading journal contributors

Table 2 lists the top ten journals, each of which has made a minimum of six publications in this field. With 58 articles, it can be shown that the *International Journal of Bank Marketing* is the leader in the field with total citations 2,551, citation per publication is 44, cite score is 7.3, SNIPa is 1.71, SJRb is 0.89, Q2. The top 10 journals contribute 144 articles. A variety of different journals have contributed to this field in a limited number of instances.

Table 2 Leading journal contributor

No.	Journal	Printing house	TP	TC	CPP	Cite score[a]	SNIP[a]	SJR[b]
1	*International Journal of Information Management*	Elsevier	13	2,810	216	28.8	5.42	4.58, Q1
2	*International Journal of Bank Marketing*	Emerald	58	2,551	44	7.3	1.71	0.89, Q2
3	*Computers in Human Behavior*	Elsevier	14	1,384	99	14.9	3.23	2.17, Q1
4	*Internet Research*	Emerald	7	810	116	10.1	2.19	1.62, Q1
5	*Journal of Retailing and Consumer Services*	Elsevier	15	747	50	11.4	2.89	2.26, Q1
6	*Journal of Business Research*	Elsevier	9	539	60	11.2	3.09	2.32, Q1
7	*Marketing Intelligence and Planning*	Emerald	6	356	60	5.4	1.12	0.93, Q2
8	*Journal of Enterprise Information Management*	Emerald	9	323	36	8.2	1.51	0.97, Q1
9	*Technology in Society*	Elsevier	7	308	44	6.5	2.08	1.14, Q1
10	*Service Industries Journal*	Taylor & Francis	6	246	41	10.8	1.95	1.80, Q1

Notes: TP = total publication; TC = total citations; CPP = citation per publication;
SNIP = source normalised impact per paper; SJR = *Scimago Journal* ranking;
[a]Figures for 2021 provided by Scopus; [b]Figures for 2021 provided by ScimagoJR.

4 Bibliometric analysis

This approach is currently being used in social science research as well as in the disciplines of library and information science, among others. The bibliometric technique builds structural pictures of scientific areas using bibliographic data from publishing databases (Zupic and Čater, 2015; Kumar et al., 2020). Pritchard (1969) coined the phrase "the application of mathematical and statistical approaches to books and other means of communication" in 1969 to describe bibliometrics. On the basis of association criteria, it is frequently classified into two types. The first section concentrates on information about impact factor measurement, while the second acknowledges the relationships that exist between different research fields and among scholars. Both of these acts have an impact on how thoroughly the investigation's substance and progress are evaluated (Ramos-Rodríguez and Ruíz-Navarro, 2004). Citation analysis and co-citation analysis are the two primary approaches that are most frequently used to arrive at these conclusions.

4.1 Influential author analysis

Table 3 lists the most influential ten authors who have contributed the most to the body of work on e-payments, together with a list of all of their publications during the time period under consideration. Five of the ten authors are from India; two are from Finland; and one each is from Pakistan, Tunisia, and Portugal. Rahi S., who is affiliated with the University of Punjab and has written ten articles most frequently from Pakistan, is the

leading contributor, according to Table 3. Rahi S. has an H-index of 8, a G-index of 10, and an M-index of 1. With an average of 8 articles, an H-index of 7, a G-index of 8, and an M-index of 0.88, Shaikh AA from Finland comes in second.

Table 3 List of influential authors

S. no	*Authors*	*University*	*Country*	*f*	*TC*	*C/f*	*H-index*	*G-index*	*M-index*
1	Rahi, S.	University of the Punjab	Pakistan	10	371	37	8	10	1
2	Shaikh, A.A.	University of Jyväskylä	Finland	8	310	39	7	8	0.88
3	Shankar, A.	Institute of Management Technology	India	8	280	35	5	8	0.71
4	Chaouali, W.	University of Sfax	Tunisia	7	284	41	5	7	0.71
5	Chawla, D.	International Management Institute	India	6	132	22	4	6	0.67
6	Gupta, S.	Amity University	India	6	82	14	4	6	0.5
7	Joshi, H.	International Management Institute	India	6	132	22	4	6	0.67
8	Karjaluoto, H.	University of Jyväskylä	Finland	6	293	49	6	6	0.75
9	Kundu, S.	Alliance University	India	6	61	10	3	6	0.25
10	Oliveira, T.	Universidade Nova de Lisboa	Portugal	6	1236	206	6	6	0.67

Notes: R = ranking; f = frequency; TC = total number of citations received for published articles; C/f = average of citations received for published articles.

Source: Author's elaboration

4.2 Affiliation analysis

The top ten institutions that generated the most research findings on e-payment throughout the investigation period are discussed in Table 4. Together, these organisations produced 123 publications. Nineteen articles were supplied by Multimedia University, followed by fifteen by the International Management Institute, and thirteen each by Islamic Azad University and Sultan Qaboos University. However, three affiliations – International Islamic University Malaysia, Jadara University, and Universitas Indonesia – all submitted the same number of publications, i.e., 11.

Table 4 Top contributing institution

Sr. no.	*Affiliation*	*Articles*
1	Multimedia University	19
2	International Management Institute	15
3	Islamic Azad University	13
4	Sultan Qaboos University	13
5	International Islamic University Malaysia	11
6	Jadara University	11
7	Universitas Indonesia	11
8	Iqra University	10
9	University of Electronic Science and Technology of China	10
10	University of Science and Technology of China	10

4.3 Nation-wise analysis

Research on e-payment contributions from the top ten countries during the study is shown in Table 5 of the paper. In terms of research production, it shows that India came in first with a share of 244 articles, followed by the USA with 125 articles and Malaysia with 105 articles. The next most contributing countries are the UK with 71 articles, China with 68 articles, and Indonesia with 46 articles. It was also disclosed in Figure 5 that India has the maximum partnership strength with the USA, China, the UK, and South Arabia.

Table 5 Leading contributing nations

No.	*Nations*	*Number of articles*
1	India	244
2	USA	125
3	Malaysia	105
4	UK	71
5	China	68
6	Indonesia	46
7	South Africa	44
8	Iran	40
9	Saudi Arabia	40
10	Jordan	38

Figure 4 Number of documents published by the different countries (see online version for colours)

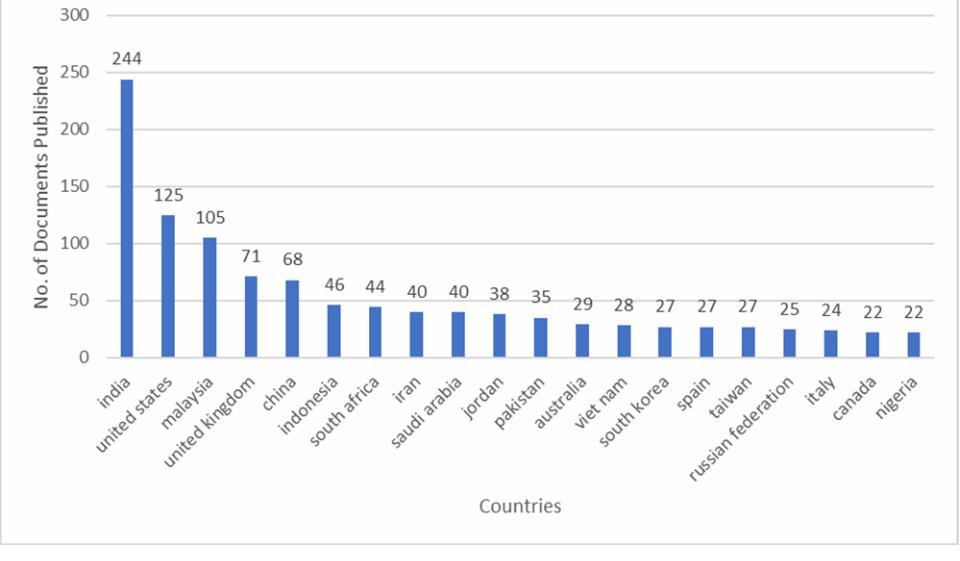
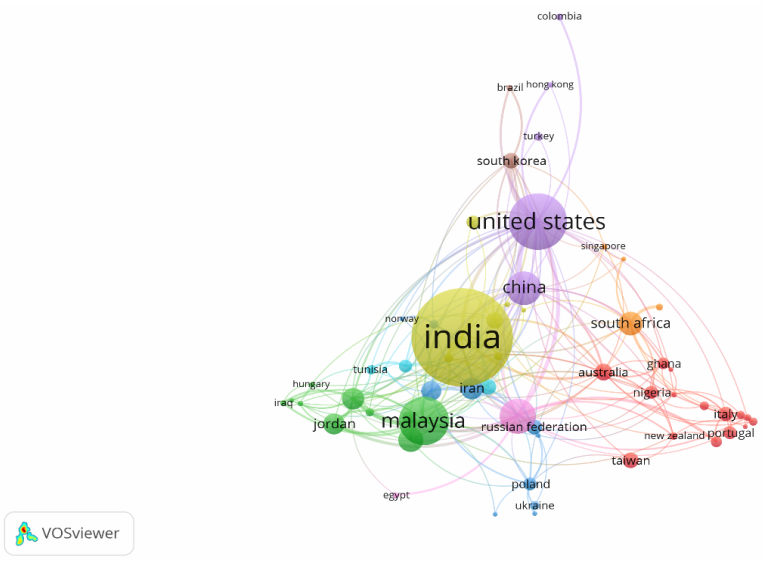


Figure 5 Co-authorship network of nations (see online version for colours)



4.4 Journal influence analysis

We look at how many times each piece has been cited in the best scholarly journals in this field overall. Journal productivity is measured by the quantity of papers published, but journal influence is measured by the quantity of citations (Svensson, 2010). As a result, researchers examined the top significant journals, taking into account the total citations of papers out of the ten most renowned journals in our field. Surprisingly, it was discovered that journals with more articles do not have more citations. As per Table 6, the *International Journal of Bank Marketing* has published 58 articles with a total of 2,551 citations. However, the *International Journal of Information Management* has only 13 publications in total, with the highest citation being 2,810.

Table 6 Total citations for publications from leading journals

S. no	*Journal name*	*TP*	*TC*
1	*International Journal of Information Management*	13	2,810
2	*International Journal of Bank Marketing*	58	2,551
3	*Computers in Human Behavior*	14	1,384
4	*Internet Research*	7	810
5	*Journal of Retailing and Consumer Services*	15	747
6	*Journal of Business Research*	9	539
7	*Marketing Intelligence and Planning*	6	356
8	*Journal of Enterprise Information Management*	9	323
9	*Technology in Society*	7	308
10	*Service Industries Journal*	6	246

Notes: TP = total publication of articles; TC = total citations.

Source: Author's elaboration

4.5 Citation analysis

The study employs citation and Btw centrality examination to demonstrate the relationship between citing and citing documents. To determine a specific document's status and influence within the scientific community, this methodology essentially counts the frequency with which it is referenced in other publications (Ding and Cronin, 2011). We have looked into 1,274 papers' frequent citations, which were discovered on Scopus' 'total times cited count'. Results showed that the range of citations for the 1,274 papers data set was 696 to 258. Table 7 shows this information for a total of ten papers with high worldwide citations.

Table 7 Leading papers cited globally

Sr. no.	*Paper*	*Total citations*	*TC per year*
1	Martins et al. (2014), *Int. J. Inf. Manage.*	696	77.33
2	Alalwan et al. (2017), *Int. J. Inf. Manage.*	569	94.83
3	Lin (2011), *Int. J. Inf. Manage.*	516	43.00
4	Im et al. (2011), *Inf. Manage.*	414	34.50
5	Zhou (2011), *Internet Res.*	303	25.25
6	Laukkanen (2016), *J. Bus. Res.*	283	40.43
7	Kesharwani and Singh Bisht (2012), *Int. J. Bank. Mark.*	279	25.36
8	Zhou (2012), *Comput. Hum. Behav.*	275	25.00
9	Van Vlasselaer et al. (2015), *Decis. Support Syst.*	274	34.25
10	Akturan and Tezcan (2012), *Mark. Intell. Plann.*	258	23.45

4.5.1 Citation trend

According to an analysis of 1274 cited papers, the two most often cited local papers, as shown in Table 8, were Martins (2014) and Lin (2011). Martins et al. (2014) which shed light on the investigation on Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk in its application was mentioned in 5% of papers out of a total of 1,274. On reviewing these ten top-cited papers, we initiate that there is an extensive series resulting in this arena. The investigation has been acknowledged based on the usage of online banking, factors influencing mobile banking adoption, and adoption of e-payments. The inclination validates that electronic payment is a cutting-edge research field.

Table 8 Leading papers cited locally

No.	*Papers*	*Area of study*	*Local citations*
1	Martins et al. (2014), *Int. J. Inf. Manage.*	Understanding the internet banking adoption: a unified theory of acceptance and use of technology and perceived risk application	90
2	Lin (2011), *Int. J. Inf. Manage.*	An empirical investigation of mobile banking adoption: The effect of innovation attributes and knowledge-based trust	86
3	Alalwan et al. (2017), *Int. J. Inf. Manage.*	Factors influencing adoption of mobile banking by Jordanian bank customers: extending UTAUT2 with trust	72

Table 8 Leading papers cited locally (continued)

No.	*Papers*	*Area of study*	*Local citations*
4	Akturan and Tezcan (2012), *Mark. Intell. Plann.*	Mobile banking adoption of the youth market: perceptions and intentions	64
5	Zhou (2011), *Internet Res.*	An empirical examination of initial trust in mobile banking	56
6	Zhou (2012), *Comput. Hum. Behav.*	Understanding users' initial trust in mobile banking: an elaboration likelihood perspective	43
7	Laukkanen (2016), *J. Bus. Res.*	Consumer adoption versus rejection decisions in seemingly similar service innovations: the case of the internet and mobile banking	41
8	Kesharwani and Singh Bisht (2012), *Int. J. Bank Mark.*	The impact of trust and perceived risk on internet banking adoption in India: an extension of technology acceptance model	34
9	Nasri and Charfeddine (2012), *J. High. Technol. Manage. Res.*	Factors affecting the adoption of internet banking in Tunisia: an integration theory of acceptance model and theory of planned behaviour	32
10	Koksal (2016), *Int. J. Bank Mark.*	The intentions of Lebanese consumers to adopt mobile banking	27

Table 9 Documents paired with the highest CoC

No.	*Documents*	*Digital object identifier*	*Count of co-citations*
1	Martins et al. (2014), *Int. J. Inf. Manage.*	10.1016/j.ijinfomgt.2013.06.002	786
2	Alalwan et al. (2017), *Int. J. Inf. Manage.*	10.1016/j.ijinfomgt.2017.01.002	641
3	Lin (2011), *Int. J. Inf. Manage.*	10.1016/j.ijinfomgt.2010.07.006	602
4	Im et al. (2011), *Inf. Manage.*	10.1016/j.im.2010.09.001	432
5	Zhou (2011), *Internet Res.*	10.1108/10662241111176353	359
6	Laukkanen (2016), *J. Bus. Res.*	10.1016/j.jbusres.2016.01.013	324
7	Akturan and Tezcan (2012), *Mark. Intell. Plann.*	10.1108/02634501211231928	322
8	Zhou (2012), *Comput. Hum. Behav.*	10.1016/j.chb.2012.03.021	318
9	Kesharwani and Singh Bisht (2012), *Int. J. Bank Mark.*	10.1108/02652321211236923	313
10	Sharma and Sharma (2019), *Int. J. Inf. Manage.*	10.1016/j.ijinfomgt.2018.09.013	231

Source: Author's elaboration

4.6 Co-citation examination

Co-citation occurs when two writers or two sources are listed together in the references section of a given publication (Tunger and Eulerich, 2018). A pair of publications that regularly quoted in tandem are probably about the same field of study (Hjørland, 2013) or

have similar content (Small, 1973). Co-citation analysis, as a consequence, is a method for assessing the contextual consistency of several documents relating to a similar topic, concept, technique, or empirical sector (Small and Greenlee, 1980; Gmür, 2003). Table 9 displays that Martins et al. (2014) has the greatest number of co-citations i.e., 786, Alalwan et al. (2017) had the 641, second highest count of CoC, followed by Lin (2011) with 602 counts of co-citations.

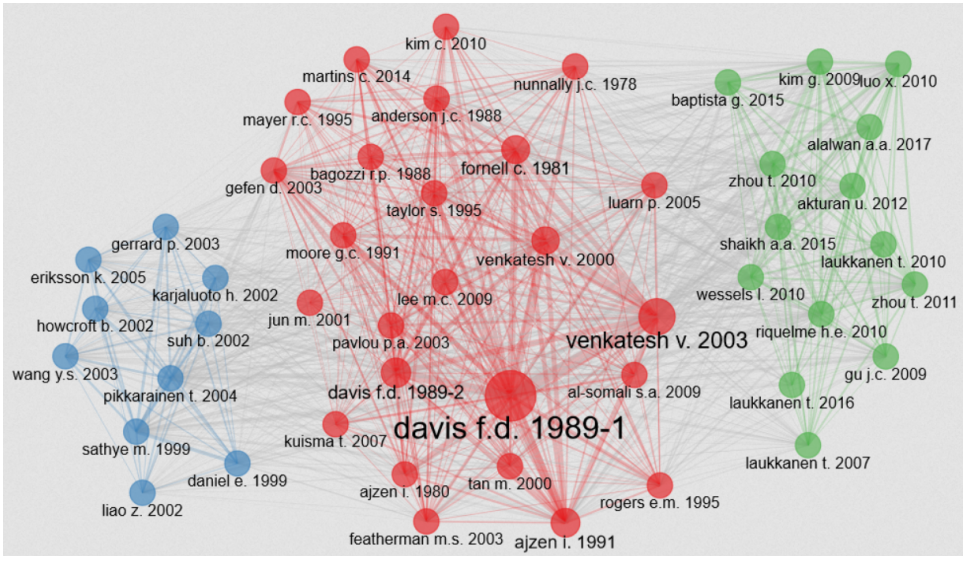
4.7 Co-citation network and clustering of data

Through the investigation of co-citation networks, the paper's intellectual structure is determined (Kaushal et al., 2021b). To identify the conceptual framework of the topic 'electronic payment research', we used the co-citation network to create groups, which we then analysed for text analysis. Essentially, to create a co-citation network, a collection of cited papers is first chosen, and then each pair of papers' co-citations are computed (Small, 2009). As a result, nodes and edges make up a co-citation network, where nodes reflect the cited publications and edges reflect the relationships that demonstrate how nodes co-occur (Leydesdorf, 2015). Biblioshiny was used in the current paper to complete the CoC analysis. In this case, the program showed a highly detailed table and graph. In order to lower the figures for the leading writers with the most citations, the present research has used this setup.

According to Leydesdorf (2015), the connectedness of nodes inside a group will be stronger than that of nodes in other groups because a network's nodes can be categorised into clusters depending on the thickness of their connections. Consequently, we clustered the network's nodes to grasp the intellectual structure revealed by the co-citation network. In social network analysis, data clustering has become a critical area of study (Blondel et al., 2008). Based on connection strength, the minimum co-citation limit, and journal articles, the clusters can be divided into several networks and shown.

It becomes more important to understand the source on which Biblioshiny bases its classifications as the software was used to create clusters. This software uses the Louvain algorithm by default for cluster emergence. In 2008, researchers from Louvain University proposed the Louvain technique of community discovery, which sought to identify communities from a large network. The goal is to identify the the quantity of divisions that will increase the modularity index (Blondel et al., 2008). When the volume of connections between groups is compared to that of connections within groups, a value between 1 and +1 is computed to represent modularity. By using this technique, the Biblioshiny program employing the CoC connections of the 50-representative sample, three clusters were found. A paper's influence can be determined in two separate ways: familiarity and status. The most renowned paper could not be a citation index (page rank measure). A key impact measure is prestige (Ding et al., 2009). A paper's status and popularity can be determined by page rank (Brin and Page, 1998). In order to further validate the findings, popular papers were grouped in the present research based on Btw (between), centrality (a metric used to measure the number of shortest distances that transfer through the destination point), closeness (measures average distance to all other nodes), and PageRank (structural partnerships between nodes). The study has used all three bases since doing so increases authenticity. In order to confirm that these publications are crucial for cluster evaluation, using the above-mentioned measures, the study mentioned the first five papers from each category.

Figure 6 Papers that co-cite each other (see online version for colours)



Source: Author's elaboration

Table 10 Five best articles in clusters, considering page rank, btw centrality, and the closeness criterion

Writer	*Btw centrality*	*Closeness*	*Page rank*
	Cluster 1		
Davis (1989)	44.63404122	0.013513514	0.05988163
Venkatesh et al. (2003)	24.20843396	0.013513514	0.04194501
Ajzen (1991)	10.25680719	0.013513514	0.03563868
Anderson and Gerbing (1988)	5.676241317	0.013513514	0.024493661
Fornell and Larcker (1981)	11.91252177	0.013513514	0.03411932
	Cluster 2		
Pikkarainen et al. (2004)	55.35087904	0.017241379	0.02176211
Sathye (1999)	28.57345237	0.016393443	0.02074512
Daniel (1999)	5.30511792	0.014492754	0.01300069
Suh and Han (2002)	13.64716459	0.015384615	0.01395042
Wang et al. (2003)	11.70310807	0.016393443	0.01326328
	Cluster 3		
Zhou et al. (2010)	38.71453644	0.016129032	0.02498038
Shaikh and Karjaluoto (2015)	14.58566922	0.014925373	0.02007716
Kim et al. (2009)	25.57002779	0.015384615	0.02108294
Luo et al. (2010)	19.44231671	0.015384615	0.01998652
Akturan and Tezcan (2012)	17.78597351	0.015384615	0.01979812

Source: Author's elaboration

The top 15 articles across the three groups are shown in Table 10. For more thoughtful and organised productivity, instead of displaying whole texts, the authors chose to display the CoC structure of five top papers inside a single group. Figure 6 shows nodes for the co-cited articles and edges (lines) between the nodes for the continuity of the papers. Nodes with a similar color scheme are members of the same group.

5 Analysis of content using clusters

This section's primary objective is to track the beginnings and progression of each study sub-theme in areas like electronic payments, their different forms, and the factors that influence their uptake (Kaushal et al., 2021a). To categorise the expert study structure on electronic payment, researchers did a content analysis for each of the three groups resulting from the co-citation study. All of these clusters are presented in detail in Table 10.

5.1 Cluster 1: user's acceptance of information technology

The greatest of the three clusters is cluster 1. Since 1981, this cluster has been developing. The present components of the clusters addressed user's acceptance of information technology, theory of planned behaviour and evaluating structural equation models practices. Fornell and Larcker (1981) focused on the study of structural equation models with unmeasured factors and systematic errors. The researchers also noted that the chi-square test's limitations prevented them from determining a model's explanatory ability. A procedure for data analysis based on measures of shared variation within the conceptual framework, statistical model, and general model was developed and put into use by the authors, to address these issues. Anderson and Gerbing (1988) presented a comprehensive, two-step modeling approach. This is supported by earlier research and experience as well as some more recent analytic advancements. The researchers also provided advice on how to specify, evaluate, and respecify models for confirmatory measurement. The study also illustrates how this strategy compares favourably to a one-step strategy. Perceived usefulness and perceived ease of use are two specific variables that are considered to be the main drivers of user approval have been discussed by Davis (1989). These scales correspond to specific variables. Their research found that usefulness and usage behaviour were substantially more correlated than ease of use. The idea of planned conduct provides a useful theoretical foundation for dealing with the complexities of human socialisation as demonstrated by Ajzen (1991). Each of these factors – intention, sense of behavioural control, attitude toward the action, and the subjective norm is a tool for attempting to change behaviour by demonstrating a specific aspect of the behaviour. In comparison to the ceiling set by behavioural reliability, the scant available evidence indicated that the idea is doing a good job of forecasting behaviour. To account for dynamic effects such as organisational environment, user experience, and demographic characteristics, Venkatesh et al. (2003) examined individual acceptance research by integrating four moderators and bringing together the common theoretical viewpoints found in the literature. This cluster mainly focuses on the embrace of digital technologies by individuals and evaluation of structural model practices in a unified way.

5.2 Cluster 2: user's acceptance of internet banking

Cluster 2 origin was in 1999. The central theme of this paper is internet banking, electronic banking and online banking. Daniel (1999) talked about the retail banks' electronic banking offerings in the UK and the Republic of Ireland. The study discovered the proposed elements in the organisation's adoption of electronic distribution were their future vision, their expectation of customer acceptance, and their organisational culture of innovation. Sathye (1999) examined the leading causes of the poor uptake by customers were a lack of understanding and issues about security. It also became apparent that a larger client care and distribution strategy must include pecuniary services provision via the Internet. Suh and Han (2002) claim that one of the most important presumptions in influencing a customer's perception of Internet banking is trust. According to the results, customers depend on trust in online settings that handle sensitive data. Regarding the acceptability of Internet banking, perceived credibility was introduced as a novel factor by Wang et al. in 2003, reflecting the recipient's privacy and security issues. Through perceived usability, perceived utility, and perceived credibility, it illustrated the immense impact of self-efficacy of technology in shaping decisions. Pikkarainen et al. (2004) discussed perceived utility and website information on online banking were the primary factors determining online-banking acceptability.

5.3 Cluster 3: user's acceptance of mobile banking

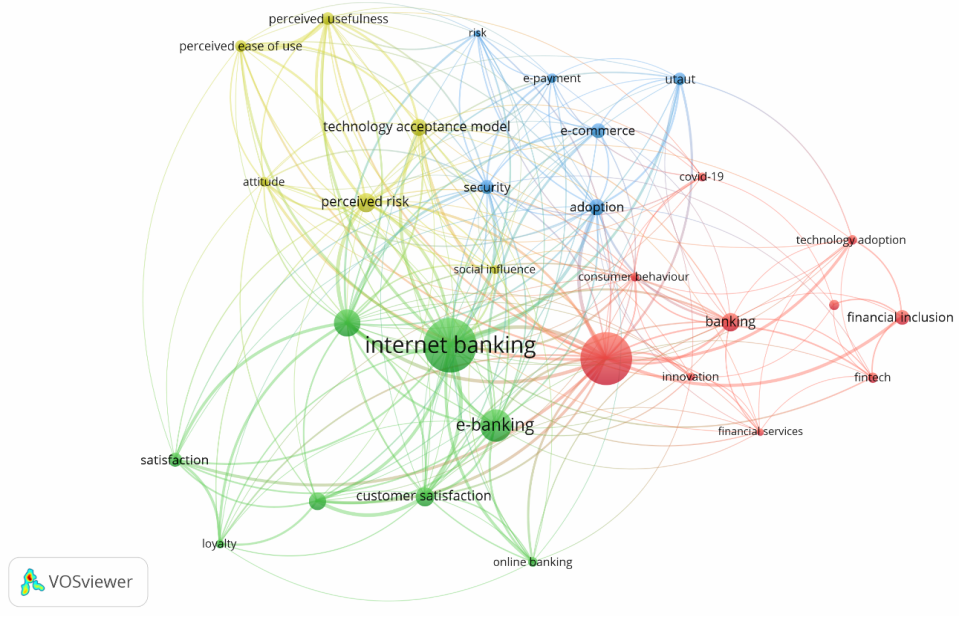
The current cluster discusses the user's acceptance of mobile banking. Kim et al. (2009) identified the processes underlying people's first development of trust in mobile banking and their willingness to employ the product. They examined the picked antecedents' relative reliability in explaining the variables as well as their individual significance. In the early stages of the wireless Internet platform's adoption, Luo et al. (2010) looked at multifaceted perceptions of risk and multifaceted perceptions of multidimensional trust. The findings showed that acceptance of new technologies were significantly influenced by risk perception, which would be generated by eight different features. A user adoption model for mobile banking was put forth by Zhou et al. (2010). They found that performance expectations, task technology fit, social influence, and facilitative factors all had a substantial impact on customer uptake. The opinions of non-users, college students, and probable future prospects in a growing nation were conveyed by Akturan and Tezcan (2012). By extending TAM, a risk-benefit approach was developed as a result of the findings. Shaikh and Karjaluoto (2015) examined, summarised, and mapped the primary hypotheses that specialists had utilised to forecast client plans to use mobile banking. Although it frequently employs the technology adoption model and its variations, it showed that the literature on the adoption of mobile banking was fragmented.

6 Author keyword analysis

Cobo et al. (2011) discussed how to evaluate and perceive a subject in a specific research area. This part helped to explore the flow of information about the topic by evaluating the keyword of the author. The author keyword is a very good indicator of the content of the publication or how closely the article relates to the research issue, according to Strozzi et al. (2017). The author keyword's co-occurrence may suggest that the work follows a

similar study issue, which may indicate the direction of the field's research (Ding et al., 2001). To ascertain the status of the existing electronic payment investigation, we have also employed author keyword analysis. These keywords were first taken from a set of 1906 articles that were connected to one another, and then, using the VOS viewer programme, a network of author keywords was built. We defined a baseline criterion of five keyword co-occurrences to provide systematic findings. After collecting 180 keywords, researchers extracted the top 30. The highest co-occurring keyword, with a frequency of 203, was discovered to be 'online banking'. Figure 7 shows the author's keyword co-occurrence structure. The most important node in the network depicted in Figure 7 is internet banking. Similar-coloured keywords that are shown together make up a unified group. The keyword e-payment is connected to Utaut, risk, security, adoption, and e-commerce, e-banking, innovation, technology acceptance model and these keywords are present in almost all the sets, as can be shown. This shows that several aspects of electronic payment have been studied. This analysis demonstrated that the most researched themes in the context of electronic payments include online banking, e-commerce, FinTech, digital payment, and financial inclusion (Figure 8).

Figure 7 Author keyword network (see online version for colours)

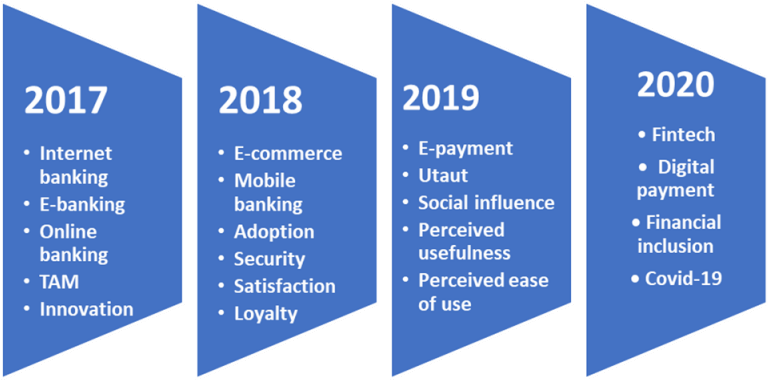


Source: Author's elaboration employing VOSviewer

On a thematic map, which has the appearance of being a highly good picture, the themes are arranged in quadrants. Centrality (x-axis) and density (y-axis) constitute the thematic map. Density indicates how well the chosen theme has developed, and centrality gauges how significant the main theme is (Sharma et al., 2021). The map is divided into four sections. The lower left-hand corner of the map indicates topics that are fading or emerging. These topics may be excluded from the study or developed by the authors. The topics in the thematic map's lower right corner stand for fundamental schemes. These subjects have been the subject of extensive inquiry. There is a niche scheme in the upper

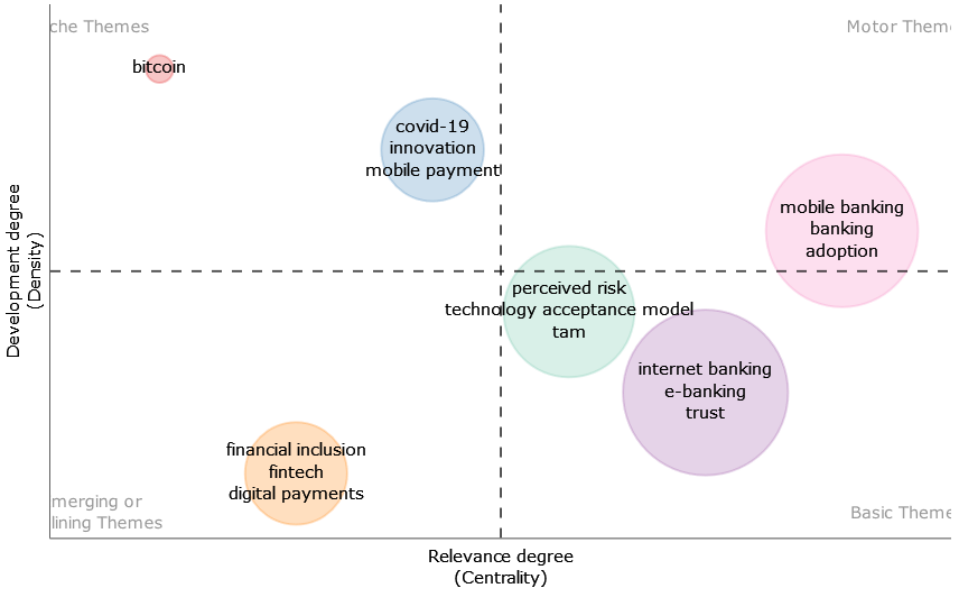
left corner that has been developed but is isolated from others. Themes have been established and are visible in the upper right corner. Figure 9 indicates that internet banking, e-banking, perceived risk, and technology acceptance models in electronic payments have been extensively researched. Financial inclusion, FinTech, and digital payments are the emerging themes. COVID-19, mobile payments, and Bitcoin are niche areas that can be developed soon. The main theme, which is a well-established and significant theme for the structure of an electronic payment sector, is the adoption of mobile banking. Comparative studies of electronic payments can be conducted between developed and developing countries.

Figure 8 Evolution of top keywords in 'electronic-payment' publications (see online version for colours)



Source: Author's elaboration

Figure 9 Thematic map (see online version for colours)

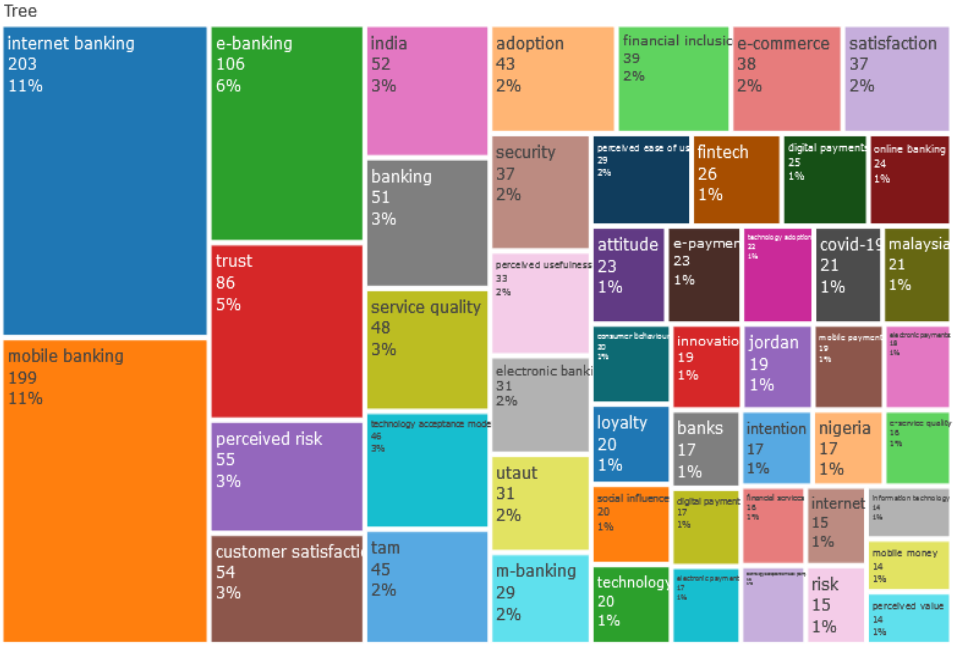


Source: Author's elaboration employing biblioshiny

Figure 10 Word cloud of research on electronic payment (see online version for colours)

Source: Author's elaboration employing Biblioshiny

Figure 11 World tree map (see online version for colours)



Source: Author's elaboration employing biblioshiny

The word cloud in Figure 10 is bordered by the author's keyword. In the research on electronic payments, e-banking is mentioned the most frequently. Thus, perceived usefulness, perceived value, security, trust, social influence, adoption, satisfaction, loyalty, innovation are the driving factors towards the adoption of electronic payments studies. Technology acceptance model, customer satisfaction, electronic payments, financial inclusion, FinTech, information technology, COVID-19 are some of the used keywords by the various authors. It is safe to make electronic payments as the covid pandemic is once again prevalent around the globe. So, studies of adoption of e-payment can be done in near future by comparing pre and post covid time.

Figure 11 depicts the growth of words from 2011. It draws attention of the possible combination of keywords that stand for internet banking, mobile banking, e-banking, technology acceptance model and the variables influencing the uptake of e-payment like perceived risk, trust, perceived usefulness, social influence. The widest box shows the most popular keyword as well as the authors' inclination for gathering data on online banking (203 times) and mobile banking (199 times).

7 Discussion

We have summarised this study in this section and provided the findings for each of the research's goals, which were covered in the introduction section. The publication patterns in this field of study were shown by the descriptive analysis. Through bibliometric research, we were able to determine the most significant author and journal. We discovered about citation patterns and the most important papers in the field using citation and co-citation analysis. The conceptual hierarchy of the area of study was determined through co-citation network analysis and content analysis. The growth of the study's clusters provided us with a trend. It all started with Cluster One in 1981. Since the activity in this cluster has been consistent from 1981 to 1998, it is safe to say that e-payment research has advanced gradually over this time. The user's adoption of information technology is covered in this cluster (Fornell and Larcker, 1981; Anderson and Gerbing, 1988; Davis, 1989). The evaluation of structural equation modeling techniques and the theory of planned behaviour are the main topics of Cluster one. The second cluster addresses the user's acceptance of online banking. This cluster's central idea is online, electronic, and internet banking. Perceived credibility was introduced as a new indicator by Wang et al. in 2003, reflecting the user's privacy and security concerns. The third cluster demonstrates the user's acceptance of mobile banking. Luo et al. (2010) examined multifarious perceptions of risk and multiple perceptions of multidimensional trust in the early phases of the adoption of the wireless Internet platform. Shaikh and Karjaluoto (2015) examined, summarised, and mapped the primary hypotheses that experts had utilised to forecast customer intentions to use mobile banking. Considering the abovementioned study's goals, the following conclusions have been drawn:

- It has been determined that between 2019 and 2021, e-payment research has been accelerating rapidly. The three institutions with the most potential to make a difference in this field have been identified as Islamic Azad University (13), Multimedia University (19), and the International Management Institute (15). According to affiliation analysis, Malaysia (105), the USA (125), and India (244) are the countries that have carried out the most extensive research in this field.

- Author-wise examination and the most frequently published papers, it was found that Rahi S (10) from Pakistan, Shaikh AA (8) from Finland, Shankar A (8) from India, Chaouali W (7) from Tunisia, and Chawla D (6) from India are the most persuasive authors in this research field.
- We looked at the impact of journals and their contributions, and we found that the *International Journal of Information Management*, with its 13 total publications and 2,810 total citations, the *International Journal of Bank Marketing*, with its 58 articles and 2,551 total citations, and *Computers in Human Behaviour*, with its 14 total publications and 1,384 total citations, have all made significant contributions to this field.
- The articles with the greatest global citations among the 1,906 articles were written by Martins et al. (2014), Alalwan et al. (2017), and Lin (2011). Citation and CoC analysis showed that the two documents (Martins and Lin H-F) that were previously cited are also the ones that have received the most local citations in the list of 1,906 papers that they were referenced in.
- We were able to recognise through cluster analysis that there are three main streams to the e-payment research. Cluster 1 started evolving in 1981 and discusses the topics related to user's acceptance of information technology. Cluster 2 origin was in 1999 and talks about user's acceptance of internet banking. The study on user acceptance of mobile banking is exhibited in cluster 3.

8 Current research limitations and prospective research directions

With specific and extensive search terms on the topic, the literature evaluation for this study yielded 1274 papers after being refined from databases from the last 12 years (2011–2022). Other keywords would have produced different findings if they had been utilised by the researcher. Gathering information is a crucial component of the structure literature review. Although the research involved 1,274 papers that were taken directly from the Scopus database, it also had some restrictions. Future research can be more thorough, taking into account multiple databases, including the WoS, Google Scholar, and IEEE Explore. In addition, researchers employed Biblioshiny and VOSviewer instead of several software programs in the current study. Using the Biblioshiny software, researchers divided the literature into three research clusters. Other techniques and tools, such as Gephi, UCInet, BibExcel, and VOSviewer, might produce different classifications. Despite the already-indicated restrictions, this paper represents the first effort to offer a thorough review of the e-payment studies. It provides a thorough thematic flow of information and suggests future research directions for new areas of study. This will facilitate the development and expansion of the field's research.

Table 11 Future research direction for e-payment research

Research gap	*Future directions*
Cross-country and international studies are insufficient.	Future research should concentrate on cross-national and multi-national comparative studies.
Lack of merger of database	Combining many databases to carry out research, for example, WoS, Google Scholar, and IEEE Explore for productive results.

The two potential future avenues for e-payment research are succinctly and clearly identified in Table 11.

9 Conclusions

Over time, scholars have become increasingly interested in studying the e-payment. We employed bibliometric analysis, network analysis, and content analysis, as well as keyword analysis, to undertake thorough research on the topic for this research study. The most cited papers and citation trends were revealed through citation and co-citation analysis. To determine the most prominent publications on this subject, the PageRank metric was utilised. Our study contributes significantly to the field of research on electronic payments because no other study in this area has conducted a thorough literature evaluation that combines bibliometric, network, and content analysis. As a result, this work offers a fresh methodological perspective on this field of study. By analysing three clusters generated from co-citation network analysis, we determined the information flows and researched topics related to e-payment with the help of the field's top contributors.

This investigation will provide a starting point for understanding e-payment research, including its current state and future directions, from an application standpoint. Additionally, it identifies the knowledge gap in the field and suggests two practical directions for further study. An essential component of a systematic literature review is gathering accessible information. The study has some limitations, even though it includes 1,274 articles that were taken directly from the Scopus database. Future research can take into account multiple databases and be more comprehensive. Regardless of the concerns raised above, this study represents an initial effort to offer a comprehensive analysis of the e-payment research that has been done. It displays the complete knowledge base organised by theme and identifies the pathways that new scholars should take to investigate new themes in the future. This will facilitate the development and expansion of the field's research.

References

Abdullah and Khan, M.N. (2021) 'Determining mobile payment adoption: a systematic literature search and bibliometric analysis', *Cogent Business & Management*, Vol. 8, No. 1, https://doi.org/10.1080/23311975.2021.1893245.

Acharya, V., Junare, S.O. and Gadhavi, D.D. (2019) 'E-payment: buzz word or reality', *International Journal of Recent Technology and Engineering*, Vol. 8, No. 3S2, pp.397–404.

Ajzen, I. (1991) 'The theory of planned behavior', *Organizational Behavior and Human Decision Processes*, Vol. 50, No. 2, pp.179–211, https://doi.org/10.1016/0749-5978(91)90020-T.

Akturan, U. and Tezcan, N. (2012) 'Mobile banking adoption of the youth market: perceptions and intentions', *Marketing Intelligence & Planning*, Vol. 30, No. 4, pp.444–459, https://doi.org/10.1108/02634501211231928.

Alalwan, A.A., Dwivedi, Y.K. and Rana, N.P. (2017) 'Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust', *International Journal of Information Management*, Vol. 37, No. 3, pp.99–110.

Anderson, J.C. and Gerbing, D.W. (1988) 'Structural equation modeling in practice: a review and recommended two-step approach', *Psychological Bulletin*, Vol. 103, No. 3, p.411.

Anisha, P., Gautaman, M., Raj, A.A.V. and Rayappa, J.J. (2022) 'A study on consumer's perception towards adoption of M-payment systems in Chennai City during COVID-19 outbreak', *Journal of Positive School Psychology*, Vol. 6, No. 3, pp.7401–7408.

Block, J.H. and Fisch, C. (2020) 'Eight tips and questions for your bibliographic study in business and management research', *Management Review Quarterly*, Vol. 70, pp.307–312, https://doi.org/10.1007/s11301-020-00188-4.

Blondel, V.D., Guillaume, J.L., Lambiotte, R. and Lefebvre, E. (2008) 'Fast unfolding of communities in large networks', *Journal of Statistical Mechanics: Theory and Experiment*, Vol. 2008, No. 10, p.P10008.

Brahma, A. and Dutta, R. (2018) 'Cashless transactions and its impact: a wise move towards Digital India', *Int. J. Sci. Res. Comput. Sci. Eng. Inf. Technol. [Serial Online]*, Vol. 3, No. 3, pp.14–28.

Brin, S. and Page, L. (1998) 'The anatomy of a large-scale hypertextual web search engine', *Computer Networks and ISDN Systems*, Vol. 30, Nos. 1–7, pp.107–117.

Castriotta, M., Loi, M., Marku, E. and Naitana, L. (2019) 'What's in a name? Exploring the conceptual structure of emerging organizations', *Scientometrics*, Vol. 118, No. 2, pp.407–437.

Cisneros, L., Ibanescu, M., Keen, C., Lobato-Calleros, O. and Niebla-Zatarain, J. (2018) 'Bibliometric study of family business succession between 1939 and 2017: mapping and analyzing authors' networks', *Scientometrics*, Vol. 117, No. 2, pp.919–951.

Cobo, M.J., López-Herrera, A.G., Herrera-Viedma, E. and Herrera, F. (2011) 'An approach for detecting, quantifying, and visualizing the evolution of a research field: a practical application to the fuzzy sets theory field', *Journal of Informetrics*, Vol. 5, No. 1, pp.146–166.

Daniel, E. (1999) 'Provision of electronic banking in the UK and the Republic of Ireland', *International Journal of Bank Marketing*, Vol. 17, No. 2, pp.72–83.

Davis, F.D. (1989) 'Perceived usefulness, perceived ease of use, and user acceptance of information technology', *MIS Quarterly*, Vol. 13, No. 3, pp.319–340.

Ding, Y. and Cronin, B. (2011) 'Popular and/or prestigious? Measures of scholarly esteem', *Information Processing & Management*, Vol. 47, No. 1, pp.80–96.

Ding, Y., Chowdhury, G.G. and Foo, S. (2001) 'Bibliometric cartography of information retrieval research by using co-word analysis', *Information Processing & Management*, Vol. 37, No. 6, pp.817–842.

Ding, Y., Yan, E., Frazho, A. and Caverlee, J. (2009) 'PageRank for ranking authors in co-citation networks', *Journal of the American Society for Information Science and Technology*, Vol. 60, No. 11, pp.2229–2243.

Fornell, C. and Larcker, D.F. (1981) 'Evaluating structural equation models with unobservable variables and measurement error', *Journal of Marketing Research*, Vol. 18, No. 1, pp.39–50.

Glänzel, W. and Schubert, A. (2004) 'Analysing scientific networks through co-authorship', in *Handbook of Quantitative Science and Technology Research: The Use of Publication and Patent Statistics in Studies of S&T Systems*, pp.257–276, https://doi.org/10.1007/1-4020-2755-9_12.

Gmür, M. (2003) 'Co-citation analysis and the search for invisible colleges: a methodological evaluation', *Scientometrics*, Vol. 57, No. 1, pp.27–57.

Gupta, D. and Pahwa, A. (2020) 'A study on awareness towards digital payments among people of Haryana', *International Journal of Advanced Science and Technology*, Vol. 29, No. 2, pp.3766–3777.

Hjørland, B. (2013) 'Citation analysis: a social and dynamic approach to knowledge organization', *Information Processing & Management*, Vol. 49, No. 6, pp.1313–1325.

Huai, C. and Chai, L. (2016) 'A bibliometric analysis on the performance and underlying dynamic patterns of water security research', *Scientometrics*, Vol. 108, No. 3, pp.1531–1551.

Im, I., Hong, S. and Kang, M.S. (2011) 'An international comparison of technology adoption: testing the UTAUT model', *Information & management*, Vol. 48, No. 1, pp.1–8.

Katz, J.S. and Martin, B.R. (1997) 'What is research collaboration?', *Research Policy*, Vol. 26, No. 1, pp.1–18.

Kaur, P. (2019) 'Cash to cashless economy: challenges & opportunities', *International Journal of 360 Management Review*, Vol. 7, No. 1, pp.520–528.

Kaushal, N., Kaurav, R.P.S., Sivathanu, B. and Kaushik, N. (2021a) 'Artificial intelligence and HRM: identifying future research agenda using systematic literature review and bibliometric analysis', *Management Review Quarterly*, pp.1–39, https://doi.org/10.1007/s11301-021-00249-2.

Kaushal, N., Kaushik, N. and Sivathanu, B. (2021b) 'Workplace ostracism in various organizations: a systematic review and bibliometric analysis', *Management Review Quarterly*, Vol. 71, No. 4, pp.783–818, https://doi.org/10.1007/s11301-020-00200-x.

Kesharwani, A. and Singh Bisht, S. (2012) 'The impact of trust and perceived risk on internet banking adoption in India: an extension of technology acceptance model', *International Journal of Bank Marketing*, Vol. 30, No. 4, pp.303–322.

Kim, G., Shin, B. and Lee, H.G. (2009) 'Understanding dynamics between initial trust and usage intentions of mobile banking', *Information Systems Journal*, Vol. 19, No. 3, pp.283–311.

Koksal, M.H. (2016) 'The intentions of Lebanese consumers to adopt mobile banking', *International Journal of Bank Marketing*, Vol. 34, No. 3, pp.327–346.

Kulathunga, D. and Ekanayake, K. (2019) 'Antecedents to adoption of electronic payment systems in Sri Lanka', *Scientific Research Journal*, Vol. 7, No. 9, pp.30–37.

Kumar, N.K. and Yadav, A.S. (2022) 'A systematic literature review and bibliometric analysis on mobile payments', *Vision*, https://doi.org/10.1177/09722629221104190.

Kumar, S., Sureka, R. and Colombage, S. (2020) 'Capital structure of SMEs: a systematic literature review and bibliometric analysis', *Management Review Quarterly*, Vol. 70, No. 4, pp.535–565.

Laukkanen, T. (2016) 'Consumer adoption versus rejection decisions in seemingly similar service innovations: the case of the Internet and mobile banking', *Journal of Business Research*, Vol. 69, No. 7, pp.2432–2439.

Legris, P., Ingham, J. and Collerette, P. (2003) 'Why do people use information technology? A critical review of the technology acceptance model', *Information & management*, Vol. 40, No. 3, pp.191–204.

Leydesdorff, L. (2015) *Bibliometrics/Citation Networks*, pp.72–74, arXiv preprint arXiv:1502.06378, DOI: https://doi.org/10.48550/arXiv.1502.06378.

Lin, H.F. (2011) 'An empirical investigation of mobile banking adoption: the effect of innovation attributes and knowledge-based trust', *International Journal of Information Management*, Vol. 31, No. 3, pp.252–260.

Luo, X., Li, H., Zhang, J. and Shim, J. P. (2010) 'Examining multi-dimensional trust and multi-faceted risk in initial acceptance of emerging technologies: an empirical study of mobile banking services', *Decision Support Systems*, Vol. 49, No. 2, pp.222–234.

Martins, C., Oliveira, T. and Popovič, A. (2014) 'Understanding the Internet banking adoption: a unified theory of acceptance and use of technology and perceived risk application', *International Journal of Information Management*, Vol. 34, No. 1, pp.1–13.

Melin, G. and Persson, O. (1996) 'Studying research collaboration using co-authorships', *Scientometrics*, Vol. 36, No. 3, pp.363–377.

Nasri, W. and Charfeddine, L. (2012) 'Factors affecting the adoption of Internet banking in Tunisia: An integration theory of acceptance model and theory of planned behavior', *The Journal of High Technology Management Research*, Vol. 23, No. 1, pp.1–14.

Nathani, S., Chakhiyar, N. and Pandey, S. K. (2022) 'A study on consumers perception towards digital payment system in India and various affecting its growth', *Issue 3 Int'l JL Mgmt. & Human*, Vol. 5, No. 3, p.1162.

Newman, M.E. (2001) 'The structure of scientific collaboration networks', *Proceedings of the National Academy of Sciences*, Vol. 98, No. 2, pp.404–409.

Newman, M.E. (2004) 'Coauthorship networks and patterns of scientific collaboration', *Proceedings of the National Academy of Sciences*, Vol. 101, pp.5200–5205, https://doi.org/10.1073/pnas.0307545100.

Pandey, S.K. (2022) 'A study on digital payments system & consumer perception: an empirical survey', *Journal of Positive School Psychology*, Vol. 6, No. 3, pp.10121–10131.

Pazarbasioglu, C., Mora, A.G., Uttamchandani, M., Natarajan, H., Feyen, E. and Saal, M. (2020) 'Digital financial services', *World Bank*, Vol. 54 [online] https://pubdocs.worldbank.org/en/230281588169110691/Digital-Financial-Services.pdf (accessed 11 December 2022).

Pikkarainen, T., Pikkarainen, K., Karjaluoto, H. and Pahnila, S. (2004) 'Consumer acceptance of online banking: an extension of the technology acceptance model', *Internet Research*, Vol. 14, No. 3, pp.224–235.

Pritchard, A. (1969) 'Statistical bibliography or bibliometrics', *Journal of Documentation,* Vol. 25, No. 4, pp.348–349.

Ramos-Rodríguez, A.R. and Ruíz-Navarro, J. (2004) 'Changes in the intellectual structure of strategic management research: a bibliometric study of the *Strategic Management Journal*, 1980–2000', *Strategic Management Journal*, Vol. 25, No. 10, pp.981–1004.

Ranjith, P.V., Kulkarni, S. and Varma, A.J. (2021) 'A literature study of consumer perception towards digital payment mode in India', *Psychology and Education*, Vol. 58, No. 1, pp.3304–3319.

Sathye, M. (1999) 'Adoption of internet banking by Australian consumers: an empirical investigation', *International Journal of Bank Marketing*, Vol. 17, No. 7, pp.324–334.

Shaikh, A.A. and Karjaluoto, H. (2015) 'Mobile banking adoption: a literature review', *Telematics and Informatics*, Vol. 32, No. 1, pp.129–142.

Shane, J.M.S.S., Chan, T.J. and Mohan, Y.M. (2022) 'Factors affecting the intention to adopt e-wallet services during COVID-19 pandemic', *Journal of Arts & Social Sciences*, Vol. 5, No. 2, pp.28–40.

Sharma, S., Malik, K., Kaur, M. and Saini, N. (2021) 'Mapping research in the field of private equity: a bibliometric analysis', *Management Review Quarterly*, Vol. 73, pp.1–29, DOI: https://doi.org/10.1007/s11301-021-00231-y.

Sharma, S.K. and Sharma, M. (2019) 'Examining the role of trust and quality dimensions in the actual usage of mobile banking services: an empirical investigation', *International Journal of Information Management*, Vol. 44, pp.65–75, DOI: https://doi.org/10.1016/j.ijinfomgt.2018.09.013.

Small, H. (1973) 'Co-citation in the scientific literature: a new measure of the relationship between two documents', *Journal of the American Society for Information Science*, Vol. 24*,* No. 4, pp.265–269.

Small, H. (2009) 'Critical thresholds for co-citation clusters and emergence of the giant component', *Journal of Informetrics*, Vol. 3, No. 4, pp.332–340.

Small, H. and Greenlee, E. (1980) 'Citation context analysis of a co-citation cluster: recombinant-DNA', *Scientometrics*, Vol. 2, No. 4, pp.277–301.

Strozzi, F., Colicchia, C., Creazza, A. and Noè, C. (2017) 'Literature review on the 'smart factory' concept using bibliometric tools', *International Journal of Production Research*, Vol. 55, No. 22, pp.6572–6591.

Suh, B. and Han, I. (2002) 'Effect of trust on customer acceptance of internet banking', *Electronic Commerce Research and Applications*, Vol. 1, Nos. 3–4, pp.247–263, https://doi.org/10.1016/S1567-4223(02)00017-0.

Svensson, G. (2010) 'SSCI and its impact factors: a "prisoner's dilemma"?. *European Journal of Marketing*. Vol. 44, pp.23–33, https://doi.org/10.1108/03090561011008583.

Tounekti, O., Ruiz-Martínez, A. and Skarmeta Gomez, A.F. (2022) 'Research in electronic and mobile payment systems: a bibliometric analysis', *Sustainability*, Vol. 14, No. 13, p.7661.

Tranfield, D., Denyer, D. and Smart, P. (2003) 'Towards a methodology for developing evidence-informed management knowledge by means of systematic review', *British Journal of Management*, Vol. 14, No. 3, pp.207–222.

Tunger, D. and Eulerich, M. (2018) 'Bibliometric analysis of corporate governance research in German-speaking countries: applying bibliometrics to business research using a custom-made database', *Scientometrics*, pp.2041–2059, https://doi.org/10.1007/s11192-018-2919-z.

Van Vlasselaer, V., Bravo, C., Caelen, O., Eliassi-Rad, T., Akoglu, L., Snoeck, M. and Baesens, B. (2015) 'APATE: a novel approach for automated credit card transaction fraud detection using network-based extensions', *Decision Support Systems*, Vol. 75, pp.38–48, DOI: https://doi.org/10.1016/j.dss.2015.04.013.

Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, FD. (2003) 'User acceptance of information technology: toward a unified view', *MIS Quarterly*, Vol. 27, No. 3, pp.425–478, https://doi.org/10.2307/30036540.

Wagner, C.S. and Leydesdorff, L. (2005) 'Network structure, self-organization, and the growth of international collaboration in science', *Research Policy*, Vol. 34, No. 10, pp.1608–1618, https://doi.org/10.1016/j.respol.2005.08.002.

Wang, Y.S., Wang, Y.M., Lin, H.H. and Tang, T.I. (2003) 'Determinants of user acceptance of internet banking: an empirical study', *International Journal of Service Industry Management*, Vol. 14, No. 5, pp.501–519, https://doi.org/10.1108/09564230310500192.

Xu, X., Chen, X., Jia, F., Brown, S., Gong, Y. and Xu, Y. (2018) 'Supply chain finance: a systematic literature review and bibliometric analysis', *International Journal of Production Economics*, Vol. 204, pp.160–173, https://doi.org/10.1016/j.ijpe.2018.08.003.

Zhou, T. (2011) 'An empirical examination of initial trust in mobile banking', *Internet Research*, Vol. 21, No. 5, pp.527–540.

Zhou, T. (2012) 'Understanding users' initial trust in mobile banking: an elaboration likelihood perspective', *Computers in Human Behavior*, Vol. 28, No. 4, pp.1518–1525.

Zhou, T., Lu, Y. and Wang, B. (2010) 'Integrating TTF and UTAUT to explain mobile banking user adoption', *Computers in Human Behavior*, Vol. 26, No. 4, pp.760–767, https://doi.org/10.1016/j.chb.2010.01.013.

Zupic, I. and Čater, T. (2015) 'Bibliometric methods in management and organization', *Organizational Research Methods*, Vol. 18, No. 3, pp.429–472, https://doi.org/10.1177/1094428114562629.