

Digital Payment System: A Review

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ABSTRACT

Today, the world over money is not only the single method of transaction. Money has changed into paper (cheques/Demand Draft's) at that point plastic and now is in a phase where it is virtual or we can say digital in nature. The advancement in technology and innovation associated with the demonstration of payments worldwide for governments, business and shoppers has made the digital payments increasingly mainstream. There are different techniques used for cashless transactions that are habitually utilized, however because of the monetary progressions the requirement for other quicker and solid strategies has inspired all the entrepreneurs and economist to acquaint dependable and simple to utilize various strategies for digital payments. Now we are in “technology regime” in which individuals and entities are required to adopt the technology for obtaining education, business, research, entertainment, employment, and merchandising related services very quickly and at low cost. The speed in completion of a transaction has been increasing with the use of technology. The Information Technology revolution is accelerating at very high speed. For many years, the utility of technology in various commercial activities has increased due to the emergence of various new encouraging services such as e-banking, e-payment, e-shopping, etc. in the marketplace. So, this paper will explore all reviews about the digital payment systems.

Keywords: Digital, Payments, Technology, Cashless and E-payments

Introduction

In addition, as we know payment is an integral part of commercial activities, digital payments are a fundamental part of electronic commerce. The use of electronic distribution networks in payment systems is activating a further practice in the commercial sector since the 1960s and especially for the transfer of big amounts of money. The Digital/ Electronic payment system's concept has been affected by these changes. The term electronic payment stands for any payment to a business, bank or public service from residents or businesses which are processed by a telecommunication or electronic network using modern equipment. Above mention definition clarify that the electronic payments that will be the target of present results are the payments that are executed by the payer himself, whether the later is a customer or business, without the involvement of the other ordinary person. One more idea of digital payment is accepted is that the remittance is made from a distance without the actual/visible presence of the payer and needless to mention that it does not include cash. According to Bhatia, 2020 report an electronic payment system is an arrangement of financial exchange linking buyer and seller in the online domain that is facilitated by digital financial instruments. From above, it is definable that digital payments are a technique of payment, which made through digital modes.

In digital payments both the parties payer and payee put to use digital modes to make payment and to receive their levy. Electronic payment is also recognized as digital payment. These days digital payments are recognized as one of the most simple, immediate and appropriate methods because this system conserves time as when we pay digitally, we need not withdraw cash from bank account and can save ourselves from a long line of ATMs and banks. It does not save time only but wastage of money as well. (Mishra C., 2019) . For the improvement of the national payment system, the country's central bank plays an ultimate role. RBI is Central Bank of India playing a crucial role and

has taken special initiatives for a sound, secure, well-organized and reliable system. The payment system has been controlled, modulated, monitored by the Payment and Settlement Systems Act, (PSS Act) in India. The PSS Act was legislated in December 2007 for introducing and up-gradation of safe payment system in the country. The first move in this field was taken by the central bank of India. The most influential factor of the large geographic spread of the country and the extensive network of branches of the Indian banking system necessitate the logistic collection of delivery of paper instruments. (Payment and Settlement Systems, 2007)

India has various systems to take care of its growth and development efficiently and effectively, the financial system of any country is one of the most important one consisting of banking and non-banking financial institutions. These institutions are providing various types of financial services to clients. In financial services, the fund transfer service is one of the most important services than all other services. The increasing development of information and communication technologies has brought numerous achievements for human society and greatly influences the life of humankind, their behaviors and social events.

An electronic payments system is a mode of payment over an electronic network such as the internet. In other words, we can say that e-payment is a method in which a person can make online payments for his or her purchase of goods and services without the physical transfer of hard cash/cheque, irrespective of time and location. As per “The Economic Times, 2019” there have been 566 million net users in December 2018, which is growing through 18% annually. People are utilizing and adopting diverse digital techniques for having luxury in life. As with the introduction of this technology, in recent times by taking the benefits of the handset (cellular phone) for monetary transactions through putting in programs of their mobile phones. However, digital payments are not only serving as payment object but it is also helpful in increasing productivity, improving tax collection, growth in national savings and many more. In the last few years, the government of India has redefined business through reengineering technology and data analytics. Advanced technology is reshaping the way the government is designing and implementing various programs including digitalization of various activities. Thus, as a result, digital payment transactions have now become extremely simple, owing to the Bharat Interface for Money (BHIM) UPI. We have seen the emergence of Google Tez, renamed as Google Pay and WhatsApp payment.

In 2017-18, India has seen over a billion transactions in volume and a trillion rupees in value. There will be increased disruption with new players and new technologies. On March 28, 2018, Rs 72,000 crore was digitally transacted through the PFMS portal for 98 lakhs transactions. This is a record of the number of digital transactions processed in a single day. Digitalization has led to lower costs in the collection of direct taxes. Almost 98.5% of all income tax (I-T) returns are filed online. The I-T Department received 6.84 crore income-tax returns in 2017-18, a growth of 26%, and additionally, more than one crore new tax returns. Unified Payments Interface (UPI) and Bharat Bill Payment System (BBPS) have triggered a plethora of private sector-innovated apps, which have significantly eased citizens’ bill payments towards services provided by the government of India. BBPS has more than doubled the number of bills paid digitally from April 2017, when the pilot was launched. The value of bills paid on the platform has jumped by about 46% during this period. According to a KPMG report, the size of the bill payments market in India will reach Rs. 9.4 trillion by 2020. (Kant, 2018). Our country is riding on a new wave of digitalized services and payments, signifying a transformational process deep seated within the way transactions were carried out by individuals and enterprises in India. According to the report by Google – Boston Consulting Group, the size of the digital payments industry in India has crossed \$500 billion in 2020 – contributing 15% to India’s GDP. Furthermore, non-cash contribution in the consumer payments segment will double to 40% by the same time. Payment service providers and financial institutions must implement measures to improve the overall customer experience and their confidence in making transactions digitally. (Dr. N. Rajendran – Chief Technology Officer, 2017). As per the report of RBI on 29th January 2021, there is a rapid growth (43%) in digital payments during the last 10 years. From 2015-16 to 2019-20 there was high growth in digital payment volumes as it grew at a compound rate of 55.1%. The report published by “The Economic Times” online transactions saw a growth of 76% compared to 2020 as it is adopted by both users and businesses. Due to COVID schools, colleges and educational institutes have increasingly been accepting online payments for fees or salary payments. Digital payments will grow to 71.7% of all transactions by 2025. (The Economic Times, 2021)

METHODS OF DIGITAL PAYMENTS

There are several options for cashless transactions, such as:

1. Payments Cards
2. USSD [Unstructured Supplementary Service Data]
3. AEPs [Aadhar Enabled Payment System]
4. UPI [Unified Payments Interface]
5. Digital wallets
6. Banks Pre paid cards
7. POS terminal [Point of Sale Terminal]
8. Internet Banking
9. Mobile Banking
10. Micro ATMs

Bibliographic coupling:

It is a technique for science mapping that operates on the assumption that two publications sharing common references are also similar in their content (Kessler, 1963, Weinberg, 1974). The analysis concentrates on the division of publications into thematic clusters based on shared references, and is best used within a specific timeframe (Zupic & Čater, 2015). The thematic clusters are formed based on the *citing publications*, and recent and niche publications can gain visibility through bibliographic coupling. As bibliographic coupling is suitable for business scholars who wish to uncover a broad spectrum of themes and its latest developments. The analysis can therefore provide a representation of the *present* of the research field.

Co-word analysis

While the previous three techniques for science mapping focus on publications, the unit of analysis for co-word analysis is “words.” In other words, unlike citation analysis, co-citation analysis, and bibliographic coupling, which employs either cited or citing publications as a focal point or a proxy, the co-word analysis is a technique that examines the actual content of the publication itself. The words in a co-word analysis are often derived from “author keywords”, and in its absence, notable words can also be extracted from “article titles,” “abstracts,” and “full texts” for the analysis. Similar to co-citation analysis the co-word analysis assumes that words that frequently appear together have a thematic relationship with one another.

The usage of words as a unit of analysis, however, has its downsides. For example, certain words are used in multiple contexts, and thus, (re)reading of publications becomes necessary to understand the meaning of the relationships between words. Besides that, some words can be very general (e.g., subject field names—e.g., advertising), and thus, it may be challenging to assign them to any one thematic cluster.

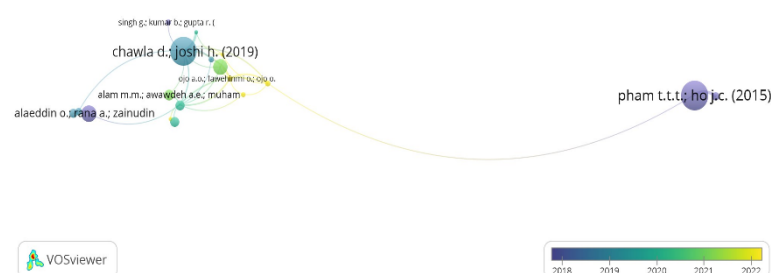
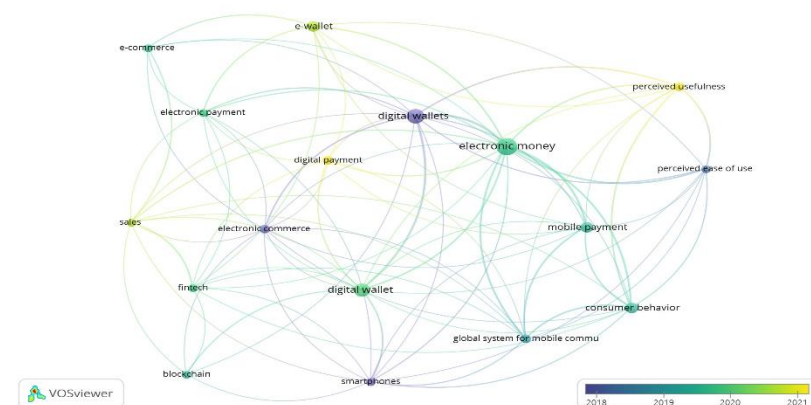
To mitigate the potential downsides of co-word analysis, business scholars are encouraged to use the analysis strategically. Here, two recommendations are provided. First, a co-word analysis can be used as a supplement to enrich understanding about the thematic clusters derived from co-citation analysis or bibliographic coupling because the themes formed through the commonalities in publications tend to be relatively general (Chang, Huang, & Lin, 2015), and thus, the use of co-word analysis can help business scholars to elaborate on the content of each thematic cluster. Second, a co-word analysis can be used to forecast future research in the field, which can be happen when notable “words” from the publication’s implications and future research directions are used in the analysis. In that sense, the co-word analysis is suitable for business scholars who wish to enrich their interpretations of co-citation analysis (*past*) or bibliographic coupling (*present*) and to predict forthcoming trajectories. The co-word analysis can therefore provide a preview of the *future* of the research field.

Co-authorship analysis

Co-authorship analysis examines the interactions among scholars in a research field. Since co-authorship is a formal way of intellectual collaboration among scholars (Acedo et al., 2006, Cisneros et al., 2018), it is therefore important to understand how scholars interact amongst themselves (including associated author attributes such as affiliated institutions and countries). With the increasing methodological and theoretical complexity in research, collaborations among scholars have become a commonplace (Acedo et al., 2006). In fact, collaborations among scholars can lead to improvements in research—for example, contributions from different scholars can contribute to greater clarity and richer insights (Tahamtan, Safipour Afshar, & Ahamdzadeh, 2016). Here, scholars that collaborate form a network known as “invisible collages,” whose study can help develop the undertakings in the research field (Crane, 1969). For example, the analysis can shed light on clustered research among scholars from a particular region and such insights can be used to justify and spark new research among scholars in underrepresented regions. The analysis also enables collaborations to be mapped across different periods of time thereby enabling scholars to review the areas of intellectual development against collaboration networks, while equipping prospective scholars with valuable information to reach out and collaborate with established and trending scholars in the research field.

KEYWORD OVERLAY

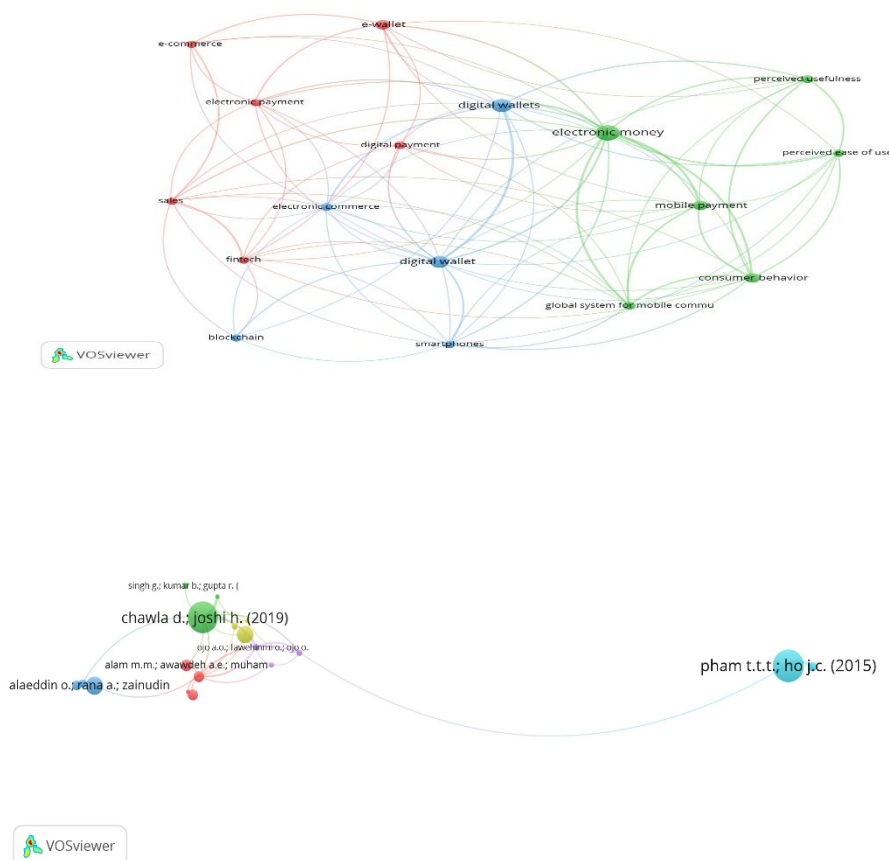
In this keyword overlay it is clear that in 2018 digital wallets were well known digital payment system used as due to increase of smartphones usage and inevitable growth electronic commerce. In 2019 as global system for mobile communication picked up pace due to which consumer behaviour was oriented towards electronic money in the form of increased usage of digital wallets. IN 2020 due to COVID electronic payments became the most crucial need of the hour. All the ecommerce transaction were completely done through using different digital payment methods. Now in 2021 onwards in the eyes consumers perceived usefulness and ease of use of digital methods played significant role due to introduction of various financial schemes has shown tremendous growth in digitalisation. The various research paper also prove this keyword overlay and their interrelationship in form of tools used for digital payments.



KEYWORD NETWORK

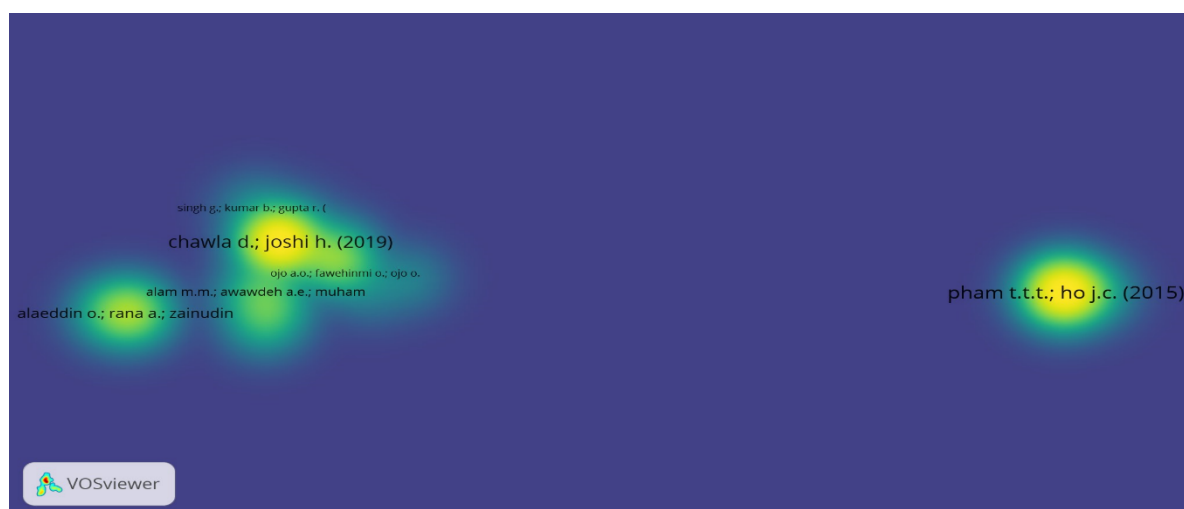
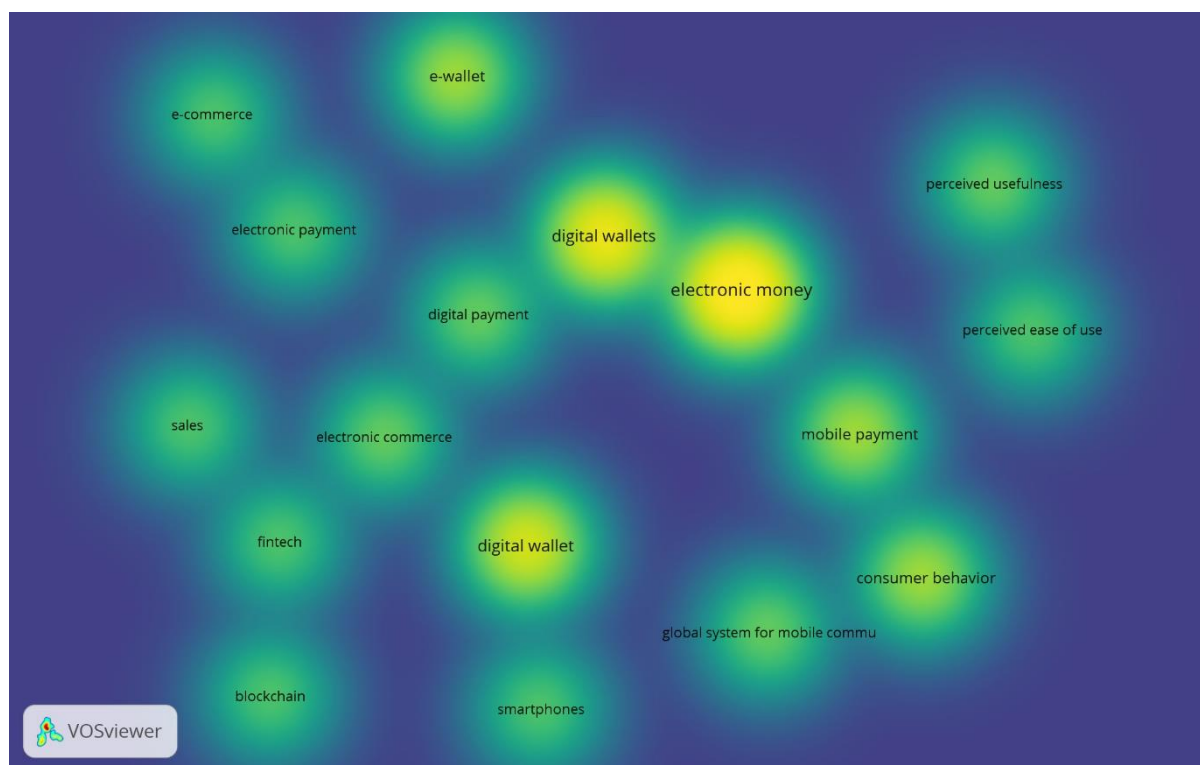
Example of co-word (keyword co-occurrence) network visualization using Gephi. Note(s): Each node in a network represents an entity (e.g., article, author, country, institution, keyword, journal), and in the case a keyword, wherein: (1) the size of the node indicates the occurrence of the keyword (i.e., the number of times that the keyword occurs), (2) the link between the nodes represents the co-occurrence between keywords (i.e., keywords that co-occur or occur together), (3) the thickness of the link signals the occurrence of co-occurrences between keywords (i.e., the number of times that the keywords co-occur or occur together), (4) the bigger the node, the greater the occurrence of the keyword, and (5) the thicker the link between nodes, the greater the occurrence of the co-occurrences between keywords. Each colour represents a thematic cluster, wherein the nodes and links in that cluster can be used to explain the theme's (cluster's) coverage of topics (nodes) and the relationships (links) between the topics (nodes) manifesting under that theme (cluster).

The various tools of digital payments are interconnected as we can see from above that due to rise in Fintech which was one of the fastest growing areas for venture capitalists. The e-commerce transactions increased manifold which in turn leads to various tools of digital payments. The use of smartphones by every individual in e-commerce increased use of digital wallets. As global system for mobile communication provide an era of mobile payments with perceived usefulness and ease of use in the eyes of consumer behaviour.



KEYWORD DENSITY

When we talk about keyword density it is important to make citation of authors and how they have used these words repeatedly. The Joshi Chawla, 2019 and J.C. Pham 2015 have shown that electronic money in the form of central bank digital currency, virtual currencies, cryptocurrency, immediate payment services and unique payment interface. The most common in both the research paper is use of digital wallets by consumers.



CONCLUSION

In sum, this paper demonstrated that bibliometric analysis is a scientific method that can be useful for both established and emerging scholars who wish to pursue a retrospective of broad and rich areas in business research. The paper also established that the bibliometric methodology has gained immense popularity in recent times due to the presence and usefulness of bibliometric software and databases that ease the acquisition and assessment of large volumes of scientific data in business research, including in relatively new but highly rich areas such as artificial intelligence and big data (Makarius, Mukherjee, Fox, & Fox, 2020; Mustak, Salminen, Ple, & Wirtz, 2021). More importantly, the paper in its pursuit of a collegial and pragmatic endeavour, illustrated the anatomy of a meaningful bibliometric analysis for business research, wherein the bibliometric methodology is introduced, the various techniques are explained, the bibliometric analysis enhancements are unpacked, and the related procedures are provided. Through this endeavour, the paper makes clear that the techniques chosen and the decisions associated with each step to perform bibliometric analysis are critical

because they influence the results obtained and the inferences that can be drawn from the analysis. Nonetheless, it is important to understand that though bibliometric analysis is an effective method of summarizing and synthesizing literature, it is not without limitations. First, the bibliometric data from scientific databases such as Scopus and Web of Science are not produced exclusively for bibliometric analysis and therefore can contain errors, wherein the presence of errors are bound to affect any analysis that is performed using such data. To mitigate errors, scholars must carefully clean the bibliometric data that they acquire, which includes removing duplicates and erroneous entries. Second, the nature of the bibliometric methodology is in itself a limitation. In particular, the qualitative assertions of bibliometric can be quite subjective given that bibliometric analysis is quantitative in nature, wherein the relationship between quantitative and qualitative results is often unclear (Wallin, 2005). In this regard, scholars should take extra care when making qualitative assertions about bibliometric observations and supplement them with content analysis, where appropriate (Gaur & Kumar, 2018). Third, bibliometric studies can only offer a short-term forecast of the research field (Wallin, 2005), and thus, scholars should avoid making over ambitious assertions about the research field and its impact in the long run. Notwithstanding these limitations, the bibliometric methodology can empower scholars to overcome the fear of dealing with large bibliometric datasets and to pursue ambitious retrospectives of business research. Indeed, the enhanced understanding of science through bibliometric analysis can facilitate knowledge creation not only in business research but also in other field.

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