Dynamics of Paylater Usage in Personal Finance Management: A Bibliometric Study

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ABSTRACT

This study explores the evolving academic discourse surrounding Paylater (Buy Now Pay Later) services in the context of personal finance management through a comprehensive bibliometric analysis. Using data from the Scopus database and visualization tools from VOSviewer, the research maps key trends, authorship networks, thematic clusters, and emerging research areas within the literature. The analysis identifies that early studies predominantly focused on technology adoption factors such as ease of use, trust, service quality, and intention to use often framed by models like the Technology Acceptance Model (TAM). Over time, the literature has shifted toward behavioral and psychological aspects, including impulsive buying, financial literacy, and social influence. The co-authorship network reveals a fragmented yet growing scholarly community, while the keyword overlay and heatmaps suggest an increasing focus on consumer behavior and the potential financial risks associated with Paylater use. This study provides a valuable foundation for scholars, practitioners, and policymakers seeking to understand the intellectual structure of the field and to guide future research on the implications of Paylater in personal finance management.

Keywords: *Buy Now Pay Later, Personal Finance Management, Consumer Behavior, Financial Literacy, Bibliometric Analysis.*

INTRODUCTION

In recent years, the digitalization of financial services has radically transformed consumer behavior in managing personal finances. One of the most prominent developments is the emergence of Buy Now Pay Later (BNPL) services, commonly known as "Paylater". These services, integrated within e-commerce and fintech platforms, allow consumers to defer payments or divide them into installments with minimal or no interest. This flexibility has attracted a large segment of the population, particularly millennials and Gen Z, who are digitally savvy and more inclined toward instant gratification [1]. The rapid uptake of Paylater services signifies a paradigm shift in how individuals perceive debt, affordability, and budgeting.

The appeal of Paylater is rooted in its seamless integration into online shopping experiences, which removes traditional friction points associated with credit. Users can access credit in real-time, often with minimal background checks, bypassing traditional financial intermediaries. Consequently, Paylater has democratized access to credit, especially in emerging economies where conventional credit card penetration remains low [2]. As a result, Paylater has become a double-edged sword—on one side enabling financial inclusion, and on the other, potentially encouraging overconsumption and unsustainable financial habits. The personal finance implications of Paylater are profound. Studies have shown that while Paylater tools offer short-term liquidity and enhance purchasing power, they may lead to long-term financial strain due to accumulated micro-debts [3]. Traditional personal finance management emphasized budgeting, saving, and cautious borrowing. However, the proliferation of Paylater tools challenges these foundations, necessitating a re-evaluation of financial literacy frameworks. Consumers may underestimate the psychological effects

of deferred payments, which often feel less burdensome than upfront costs, thereby distorting spending behavior [4].

From a macroeconomic standpoint, the rise of Paylater services has implications for household debt dynamics and financial system stability. Regulators in several countries have raised concerns about the lack of oversight and transparency in BNPL offerings [5]. The unregulated nature of many Paylater platforms means they often fall outside the purview of traditional consumer credit laws, potentially exposing consumers to predatory practices. As usage continues to grow, understanding the broader dynamics of Paylater in the context of personal finance becomes essential for designing effective consumer protection policies and sustainable financial ecosystems.

Despite the increasing academic and policy attention on Paylater, research in this area remains fragmented. Different disciplines, ranging from behavioral finance, fintech, consumer psychology, to digital economics, have approached Paylater from various angles. There is a growing need to synthesize this knowledge to identify trends, gaps, and future directions. Bibliometric analysis offers a systematic and quantitative approach to mapping this evolving body of literature. By identifying influential authors, journals, themes, and citation patterns, a bibliometric study can provide a comprehensive overview of the scholarly landscape concerning Paylater and its role in personal finance management. Although Paylater services have become ubiquitous in the digital financial ecosystem, scholarly understanding of their implications on personal finance remains scattered across multiple domains. The lack of a cohesive and systematic review of existing literature impedes efforts to construct theoretical models and policy frameworks that adequately address the risks and opportunities posed by Paylater. Consequently, there is an urgent need to consolidate and visualize the body of knowledge surrounding Paylater usage to inform both academic research and practical interventions in personal finance behavior. This study aims to conduct a comprehensive bibliometric analysis of existing literature on Paylater services and their role in personal finance management.

METHOD

This study employs a bibliometric analysis approach to map the structure and dynamics of academic research on Paylater usage within the domain of personal finance management. Bibliometric analysis is a systematic method used to quantitatively assess scholarly outputs, including publication trends, author collaboration networks, keyword co-occurrences, and citation impacts. To perform this analysis, we utilized VOSviewer, a powerful visualization software specifically designed for constructing and visualizing bibliometric networks. The bibliometric data were extracted from the Scopus database, recognized for its comprehensive indexing of peer-reviewed literature across social sciences, economics, finance, and technology. The search was conducted using a combination of relevant keywords and Boolean operators to capture publications related to Paylater and personal finance. The search query was formulated as follows:
("buy now pay later" OR "BNPL" OR "paylater" OR "deferred payment" OR "installment payment")

The inclusion criteria were articles, conference proceedings, and reviews published between 2010 and 2024, publications written in English, and peer-reviewed documents only. The initial search yielded 218 documents, which were then screened to remove duplicates and irrelevant results based on title and abstract. After refinement, 174 publications were retained for bibliometric analysis.

The bibliometric analysis followed three main steps using VOSviewer consist of co-authorship analysis, co-occurrence analysis, and citation analyisis. Prior to visualization, data were preprocessed to consolidate synonymous terms (e.g., "BNPL" and "buy now pay later") and correct inconsistencies in author or institutional names (e.g., "Univ. of Oxford" vs. "University of Oxford"). This step is crucial to ensure accurate clustering and meaningful network patterns. The exported .csv and .txt files from Scopus were converted to VOSviewer-compatible formats. Term maps and networks were generated using VOSviewer's counting method (full counting) to give equal weight to each document regardless of author count.

RESULT
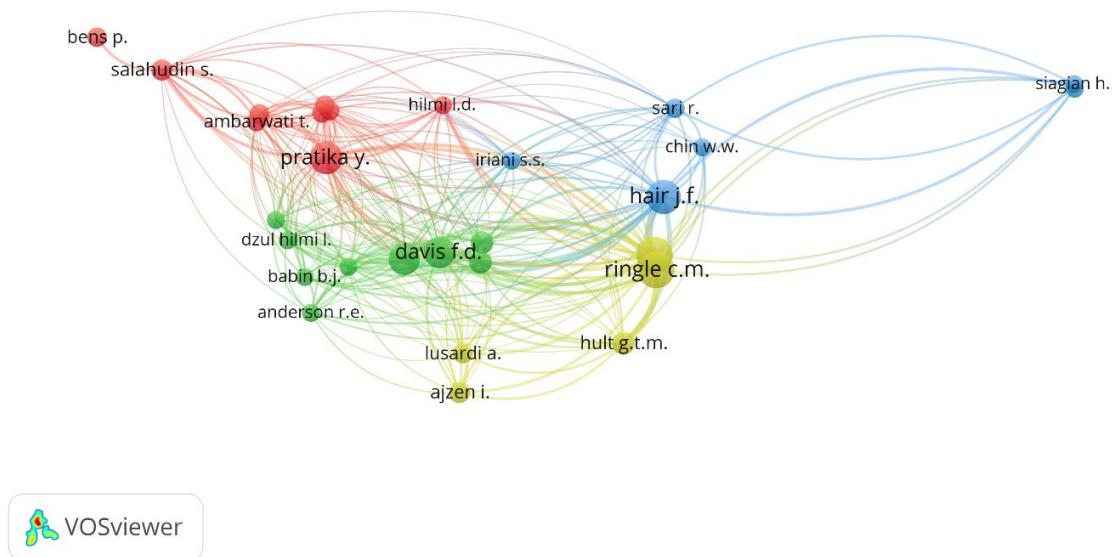
Co-Authorship Analysis

Figure 1. Author Visualization
Source: Data Analysis

The visualization above illustrates a co-authorship network among researchers contributing to the field of Paylater and personal finance management. The map reveals five major clusters represented by different colors, each indicating a group of authors who frequently collaborate. The red cluster centers around authors such as Pratika Y., Ambarwati T., and Salahudin S., suggesting strong regional or institutional collaboration, likely within Indonesian academic networks. The green cluster features prominent theoretical contributors such as Davis F.D., Ajzen I., Babin B.J., and Lusardi A., indicating that these authors form the core of foundational work in financial behavior and technology adoption models (e.g., TAM, TPB). The yellow cluster, with Hair J.F., Ringle C.M., and Hult G.T.M., represents methodological experts, especially in the domain of structural equation modeling (SEM-PLS). Meanwhile, the blue cluster, including Siagian H., Sari R., and Chin W.W., suggests another regional cluster possibly tied to empirical applications in Southeast Asia. Lastly, the network structure indicates moderate inter-cluster linkages, suggesting some degree of interdisciplinary interaction, although collaboration still tends to be strongest within localized or thematically cohesive groups.
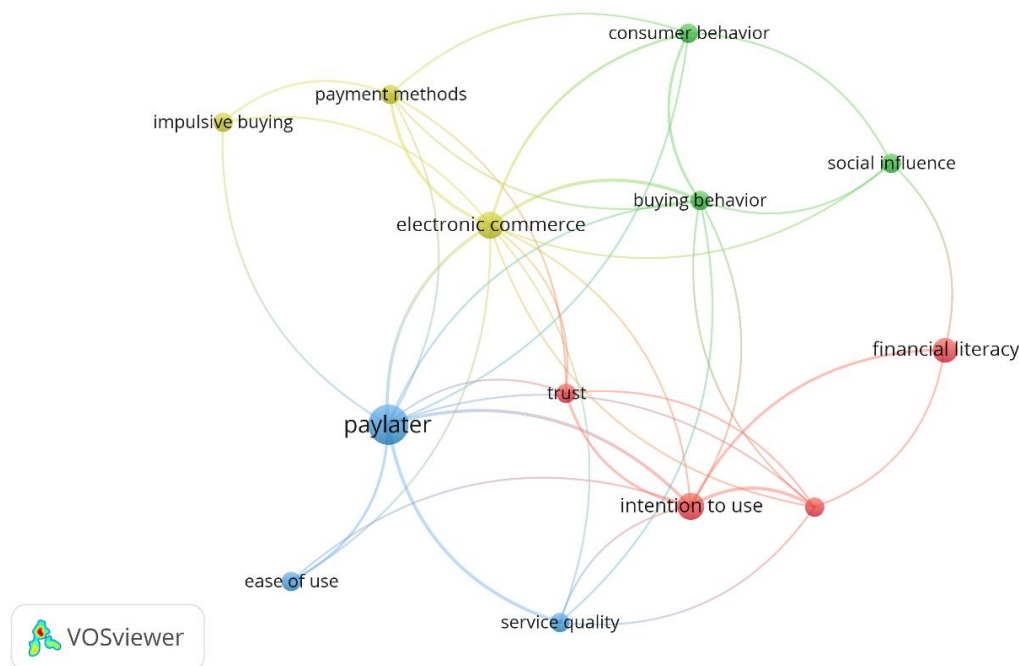
Co-Occurrence Analysis

Figure 2. Network Visualization
Source: Data Analysis

The keyword co-occurrence map presents a thematic structure of scholarly research surrounding Paylater usage in the context of personal finance and consumer behavior. The visualized network reveals multiple interrelated clusters, each representing a distinct but interconnected research theme. At the center is the keyword "Paylater", which is closely associated with concepts such as ease of use, service quality, and trust, indicating that much of the literature focuses on user experience and technological acceptance. This suggests that the Technology Acceptance Model (TAM) and related frameworks are frequently employed to study the adoption of Paylater services. A prominent red cluster is formed around the concept of "intention to use", which connects directly with trust, financial literacy, and social influence. This cluster reflects a strong behavioral research orientation, investigating how cognitive and social factors shape user intentions toward adopting Paylater services. The link with financial literacy is particularly important, as it implies that users' understanding of credit and finance plays a key role in responsible usage. Meanwhile, social influence signifies that peer behavior and cultural trends also contribute to shaping attitudes, especially among younger consumers.

Another major cluster, depicted in green, centers on consumer behavior and buying behavior, extending to social influence and electronic commerce. This reflects an ongoing academic interest in how Paylater services impact broader consumption patterns, particularly within the context of e-commerce platforms. The interlinkages suggest that researchers are examining how payment options like Paylater affect impulsivity, decision-making, and overall financial discipline. This thematic focus is reinforced by the overlap with the yellow cluster, where impulsive buying and payment methods appear, emphasizing the psychological dimension of instant credit access.

The network reveals that research on Paylater spans interdisciplinary domains, combining insights from marketing, finance, psychology, and information systems. The proximity of themes like trust, service quality, and ease of use highlights the importance of system reliability and user interface design in fostering adoption. Simultaneously, clusters focused on financial behavior and literacy underline the social and ethical implications of deferred payment mechanisms. The interconnectedness of these themes suggests that future research should continue integrating both technological and behavioral perspectives to offer a holistic understanding of Paylater's role in modern personal finance management.
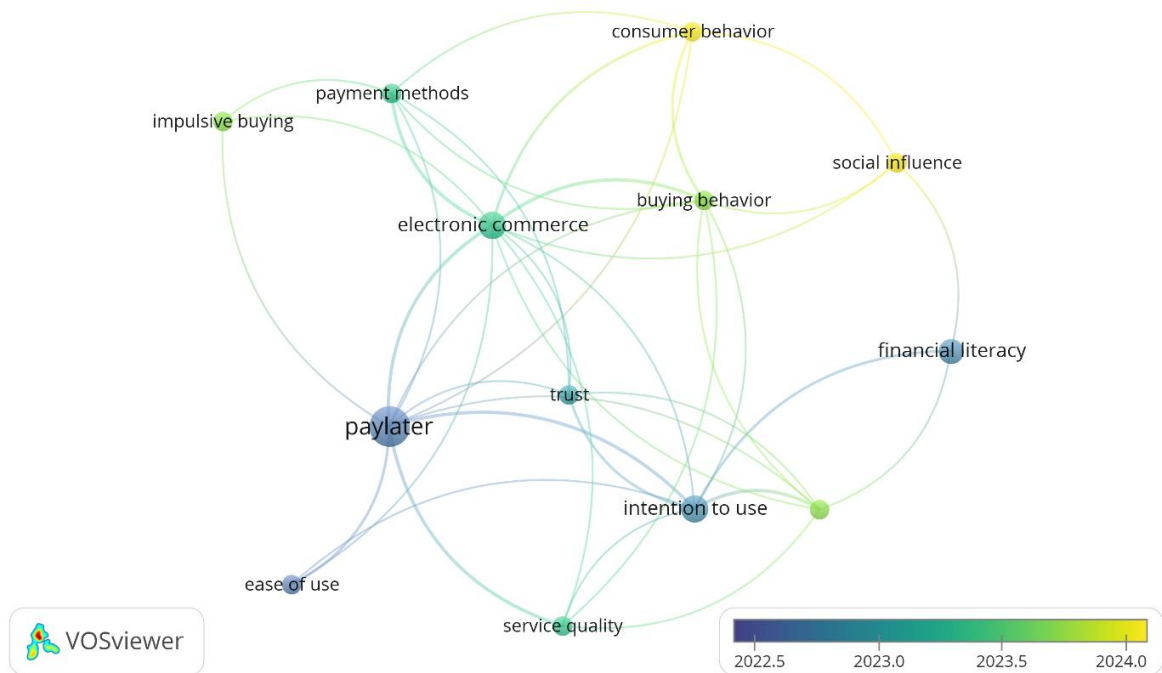
Figure 3. Overlay Visualization
Source: Data Analysis

This overlay visualization map illustrates the temporal evolution of keywords in the Paylater and personal finance research domain from 2022 to 2024. The color gradient from dark blue (older) to bright yellow (newer), reveals the average publication year of each keyword. Terms like "paylater," "ease of use," and "service quality" are displayed in blue, indicating their early and foundational presence in the literature, particularly around 2022. These terms highlight the initial research focus on the technological interface, usability, and platform trustworthiness that drive early user adoption. Keywords in green to yellow, such as "consumer behavior," "buying behavior," "payment methods," and "social influence," represent more recent trends, signaling a shift toward behavioral and psychological dimensions in the literature. These newer focuses suggest that researchers are increasingly interested in understanding the socio-psychological effects of Paylater, such as how users' social networks, purchasing tendencies, and consumption habits influence their usage patterns. The transition toward these keywords around 2023–2024 implies a growing interdisciplinary interest, incorporating insights from behavioral economics, marketing, and sociology. Moreover, the keyword "intention to use" appears in light green, placing it at the intersection of past and recent research trends. This suggests that the construct remains a consistent focal point in both early and current literature. Its strong connections to trust, financial literacy, and electronic commerce indicate that intention to use is a mediating variable shaped by both technological features and user attributes.
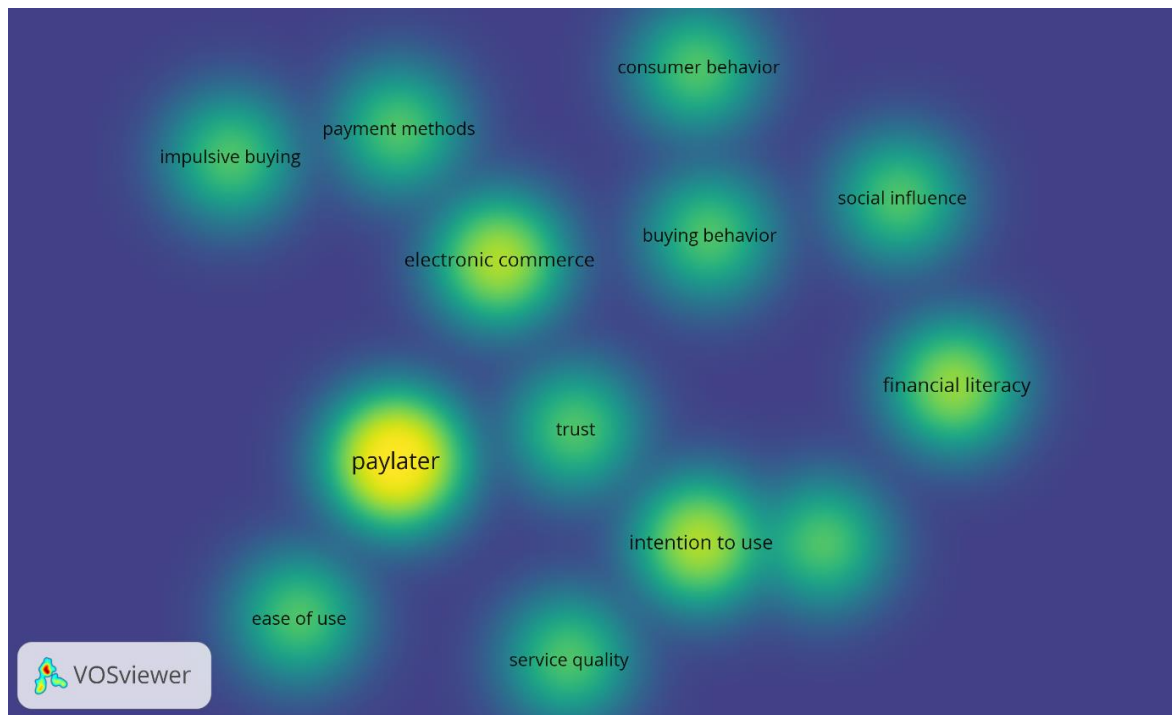
Figure 4. Density Visualization
Source: Data Analysis

The heatmap visualization highlights the frequency and intensity of keyword occurrences in Paylater-related academic literature. The brightest and most concentrated node is "paylater", which indicates it is the central and most frequently discussed term within the dataset. Other highly active keywords include "electronic commerce," "intention to use," "trust," and "financial literacy," all of which show moderate-to-high heat intensity. This distribution confirms that research in this area primarily revolves around user decision-making, technology adoption, and financial behavior in digital commerce contexts. Peripheral yet still relevant keywords such as "impulsive buying," "ease of use," "social influence," and "consumer behavior" also exhibit visible heat clusters, suggesting consistent scholarly attention. These areas represent complementary themes that enhance the understanding of Paylater adoption by integrating behavioral and psychological variables.
Citation Analysis

Table 1. Most Cited Article

Citations	Author and Year	Title
8	[6]	The Influence Of Attitude Toward Behavior, Subjective Norms, Perceived Behavioral Control On The Behavioral Intention Of Using Paylater Apps Moderated By Financial Literacy And Hedonic Value
6	[7]	Identifying Determinant Factors Influencing User's Behavioral Intention To Use Traveloka Paylater
5	[8]	Buy Now Pay Later Services On Generation Z: Exploratory Data Analysis Using Machine Learning
4	[9]	The Role Of Financial Literacy To Suppress Temptation Of Using Paylater Service
3	[10]	The Effect Of Paylater On Purchase Decision And Continuance Intention In Generation Z At Gofood Application
3	[11]	Analysis Of Intention To Use On Pay Later Payment System During Covid-19 Pandemic
2	[12]	Decision Theory And Risk Simulation Analysis For Optimizing Profit In Paylater Services

| 2 | [13] | The Effect Of Excessive Social Networking Sites On Credit Overuse Behavior Through Money Trust, Money Anxiety, And Money Power |
| 2 | [14] | Factors Affecting Financial Management Behavior Of Paylater Users In Indonesia: Examining The Moderating Role Of Locus Of Control |

Source: Scopus, 2025

DISCUSSION

Central Themes and Theoretical Anchors

The co-occurrence map of keywords illustrates that research on Paylater is deeply rooted in technology adoption theories, particularly the Technology Acceptance Model (TAM) and its extensions. Keywords such as ease of use, trust, service quality, and intention to use appear prominently and are clustered closely around the central term "paylater." This suggests that early and foundational research in this field has been predominantly concerned with users' perceptions of the technology itself—its usability, reliability, and perceived value. These findings are consistent with studies such as [15], [16], where perceived ease and perceived usefulness are primary predictors of behavioral intention in adopting technology. The emphasis on intention to use and its strong linkage with trust and service quality also implies a consistent focus on consumer trust in digital platforms. Given that Paylater services are typically embedded within e-commerce ecosystems and often bypass traditional banking systems, trust becomes a key determinant of consumer adoption. These services must offer a secure, transparent, and seamless experience, as consumer confidence can be easily eroded by concerns over privacy, hidden fees, or fraud. The observed keyword associations suggest that trust operates both as a mediator and a moderator in models predicting Paylater usage.

From Technology to Behavior: Expanding Research Focus

While technological determinants dominate the earlier literature, the overlay visualization map reveals a notable temporal shift from system-centric studies toward consumer-centric research. More recent publications reflected in yellow and green tones increasingly focus on social influence, buying behavior, consumer behavior, and financial literacy. This transition marks an important evolution in the field, where scholars are no longer examining just how Paylater systems work or why users adopt them, but also exploring the behavioral, psychological, and societal consequences of their usage. The inclusion of impulsive buying and consumer behavior as co-occurring keywords highlights emerging concerns about overconsumption and financial discipline. Studies have begun to examine how Paylater's promise of deferred payment reduces the immediate psychological impact of spending, thereby encouraging consumers to spend more than they can afford [17]. This phenomenon aligns with behavioral finance theories that discuss time-inconsistent preferences and the underestimation of future obligations, especially among younger consumers with limited financial planning experience. Furthermore, the role of financial literacy appears to be increasingly emphasized in recent literature. As illustrated in both the co-occurrence and overlay maps, this term is strongly connected to intention to use and trust, suggesting that financially literate individuals may be better equipped to evaluate the risks and benefits of using Paylater. However, there is also evidence that users with lower financial literacy may misinterpret the terms of BNPL agreements, leading to debt accumulation and poor financial outcomes [18]. Therefore, the intersection between financial knowledge and behavioral intention emerges as a fertile ground for future empirical work.

Author Collaboration and Regional Contributions

The co-authorship network analysis further contextualizes the academic development of this field. The map reveals a series of distinct author clusters, with limited inter-cluster collaboration. Notably, authors such as Pratika Y., Ambarwati T., and Salahudin S. form a tightly-knit cluster likely based in Indonesia, whereas another influential cluster includes Hair J.F., Ringle C.M., and Hult G.T.M., recognized globally for their contributions to PLS-SEM methodologies. The presence of

Ajzen I. and Davis F.D. within the network also underscores the enduring influence of foundational behavioral theories. While the diversity of contributors is commendable, the fragmented nature of these author networks suggests that cross-institutional and cross-regional collaboration remains limited. Such fragmentation may hinder the development of more robust, generalizable insights. Encouraging broader collaboration between technical, behavioral, and policy-oriented scholars could bridge disciplinary gaps and result in more comprehensive understanding of Paylater's implications on personal finance.

Research Saturation and Emerging Hotspots

The heatmap visualization underscores the areas that have received the most academic attention to date. Paylater, electronic commerce, intention to use, and trust emerge as the highest-density terms, indicating that these themes have been heavily researched. Conversely, terms like impulsive buying, social influence, and financial literacy show slightly lower heat intensity, implying that they are emerging topics with growing but still limited literature. This suggests a dual dynamic within the field: a core of mature research themes centered around technology adoption and trust, and a set of emerging research frontiers that investigate behavioral risks, societal impact, and financial responsibility. These findings align with the broader trajectory of fintech-related research, which often begins with system usability and gradually shifts toward regulatory, ethical, and psychological dimensions. Moreover, the relatively low heat associated with keywords like ease of use and service quality indicates that while these were foundational to early studies, they may now be reaching saturation. Scholars looking to contribute novel insights may benefit more from exploring underdeveloped but timely topics such as Paylater's role in youth debt, intergenerational financial behavior, regulatory gaps, or comparative studies between regions with different credit cultures.

Practical Implications and Future Directions

The insights from this bibliometric study have both academic and policy implications. For academics, the identified clusters and trends can guide literature reviews, theory building, and empirical investigation. Future research could explore longitudinal effects of Paylater use, integrate qualitative user narratives, or employ experimental designs to test behavioral hypotheses. In particular, integrating financial literacy interventions into studies on BNPL adoption may yield important findings about risk mitigation. For policymakers and financial institutions, the findings highlight the need for greater transparency and regulation in Paylater offerings. As the sector grows, so do risks related to consumer exploitation, data privacy, and financial instability. Tailored consumer education programs and digital financial literacy campaigns could help mitigate potential harms. Additionally, integrating Paylater services into national credit reporting systems could offer users better accountability while enabling more effective debt monitoring.

CONCLUSION

This bibliometric study has provided a comprehensive overview of the scholarly landscape surrounding Paylater usage in personal finance management. Through co-authorship, keyword co-occurrence, overlay, and heatmap visualizations using VOSviewer, the analysis reveals that research in this domain has evolved from focusing on technological adoption factors, such as ease of use, trust, and service quality toward more complex behavioral themes, including consumer impulsivity, financial literacy, and social influence. The field is increasingly interdisciplinary, drawing from information systems, behavioral finance, marketing, and digital commerce. While foundational concepts remain central, emerging research hotspots point to growing academic concern over the societal and financial implications of Paylater services. As this area continues to develop, future research should address the long-term behavioral and economic impacts of Paylater usage, promote inclusive financial literacy, and inform regulatory frameworks that balance innovation with consumer protection.

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