

Bridging Digital Economy and Financial Literacy: A Bibliometric Analysis of Research Trends and Sustainable Development Implications

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ABSTRACT

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The rapid advancement of the digital economy has significantly influenced financial literacy, financial inclusion, and sustainable development. This study employs a bibliometric analysis to examine the evolving research landscape on digital financial literacy, its role in economic empowerment, and its contribution to global sustainability goals. Using a network visualization of research keywords, we identify two dominant clusters: "digital economy," which is linked to digital transformation, artificial intelligence, blockchain, and green technology innovation, and "financial literacy," which is associated with financial inclusion, fintech, economic empowerment, and sustainable development goals (SDGs). The interconnections between these themes highlight the critical role of digital financial literacy in bridging technological and economic transformations with broader sustainability objectives. Additionally, the growing focus on environmental sustainability, green finance, and carbon neutrality indicates an increasing interest in leveraging digital financial systems for environmental and social impact. The findings underscore the multidisciplinary nature of digital financial literacy research and its importance in fostering inclusive economic growth and sustainable development. Future research should explore emerging challenges, including digital financial disparities and the environmental impact of digital finance, to ensure equitable and responsible digital economic growth.

Keywords: Digital Economy, Financial Literacy, Bibliometric Analysis, Research Trends, Sustainable Development.

INTRODUCTION

The intersection of financial digital literacy and the Sustainable Development Goals (SDGs) represents a critical area of research that seeks to understand how financial literacy, particularly in a digital context, can contribute to achieving broader societal goals (Muthoifin, Rachmadie et al., 2025). Financial literacy encompasses the knowledge and skills necessary to make informed financial decisions, which is increasingly important in a world where digital financial services (DFS) are becoming ubiquitous. The integration of digital financial literacy into the framework of the SDGs can facilitate economic empowerment, promote financial inclusion, and ultimately lead to sustainable development (Subhi Apriantoro & Herviana, 2023).

Financial inclusion is a key driver of sustainable growth, particularly in developing regions. Research by Pandey et al. illustrates how financial literacy enhances the effectiveness of financial initiatives aimed at achieving the SDGs, emphasizing that a strategic collaboration between financial inclusion and education is essential for societal and economic stability (Pandey et al., 2022). This assertion is supported by Zaimović et al., who conducted a systematic literature review that identifies financial literacy as a critical life skill necessary for individual well-being and economic growth, thereby linking it directly to the SDGs (Zaimovic et al., 2023). The literature indicates that financial literacy is not merely an individual asset but a societal necessity that can lead to improved economic outcomes and reduced inequalities, aligning with SDG 10 on reduced inequalities (Elbanna et al., 2025).

Moreover, the role of digital financial services in promoting financial inclusion cannot be overstated. Mpofu discusses how digital financial inclusion (DFI) can broaden access to financial services, particularly for marginalized groups, thereby contributing to the attainment of various SDGs, including poverty reduction and gender equality (Mpofu, 2024). The challenges and opportunities presented by DFI are crucial for understanding how digital platforms can facilitate financial literacy and inclusion. This is echoed in the work of López-Medina et al., who provide a bibliometric

analysis of financial behavior about sustainability, indicating a growing body of research that connects financial literacy with the SDGs (López-Medina et al., 2022).

The bibliometric analysis of financial literacy research reveals significant trends and determinants that influence financial behavior and decision-making (Apriantoro, Maheswari, et al., 2023). For instance, the study by Treu emphasizes the interdependencies between financial literacy, financial inclusion, FinTech, and the SDGs, advocating for a holistic approach to understanding these relationships (Treu, 2023). This perspective is vital for policymakers and educators aiming to design effective financial literacy programs that are aligned with the SDGs (Oktatianti et al., 2025).

Furthermore, the digital transformation of financial services presents both opportunities and challenges. As noted by Mpofu, while digital technologies have the potential to enhance financial inclusion, there remains a gender disparity in access to these services, which can hinder the achievement of SDG 5 on gender equality (Mpofu, 2023). This highlights the need for targeted interventions that address the unique barriers faced by women in accessing digital financial services. The findings of Nandru et al. further support this notion by illustrating how socioeconomic factors influence the adoption of digital financial services, particularly during crises like the COVID-19 pandemic (Nandru et al., 2024).

The relationship between financial literacy and socioeconomic well-being is also underscored by Ranabhat, who argues that financial literacy is crucial for managing personal finances effectively, which in turn impacts economic growth and social welfare (Ranabhat, 2023). This connection reinforces the importance of integrating financial literacy into educational curricula and public policy, as it can significantly contribute to achieving SDGs related to poverty reduction and economic advancement (Marshal, et al., 2024).

In addition to the educational aspect, the role of digital platforms in promoting financial literacy is increasingly recognized. Li and Meyer-Cirkel's pilot study in Luxembourg demonstrates how digital platforms can be leveraged to enhance financial literacy among diverse populations, thereby fostering better financial decision-making (Li & Meyer-Cirkel, 2021). This aligns with the findings of Koskelainen et al., who propose a research agenda for measuring digital financial literacy and developing digital learning tools to create a more inclusive economic landscape (Koskelainen et al., 2023).

The bibliometric analysis of financial literacy and its implications for the SDGs is essential for identifying research gaps and future directions. For instance, the work of Vergara and Agudo highlights the interplay between FinTech and sustainability, suggesting that financial technologies can enhance the sustainability of financial practices (Vergara & Agudo, 2021). This is particularly relevant in the context of developing countries, where digital financial innovations can play a transformative role in achieving the SDGs.

Moreover, the importance of policy frameworks that support digital literacy initiatives cannot be overstated. Mahendra et al. emphasize the need for policies that enhance digital literacy in alignment with the SDGs, advocating for a comprehensive approach that integrates financial education into broader development strategies (Mahendra et al., 2022). This is crucial for ensuring that individuals are equipped with the necessary skills to navigate the digital financial landscape effectively (AN et al., 2024).

In conclusion, the intersection of financial digital literacy and the SDGs presents a multifaceted area of research that warrants further exploration. The evidence suggests that enhancing financial literacy, particularly in a digital context, is essential for promoting financial inclusion, reducing inequalities, and fostering sustainable economic growth. As digital financial services continue to evolve, researchers, policymakers, and educators must collaborate to develop strategies that leverage financial literacy as a tool for achieving the SDGs.

METHODS

The research procedure adopts a bibliometric method to analyze the development and trends in the field of digital financial literacy and its connection to sustainable development (Dartim, et al., 2024). The research stages begin with the identification of relevant keywords using a combination of terms such as "digital finance," "financial literacy," "Fintech education," "online financial learning," "digital economy," "personal finance," "fintech awareness," and "digital payment knowledge," which are linked to concepts like "sustainable development," "SDGs," "economic empowerment," "financial stability," "green finance," and "inclusive economy." The search is conducted through the

Scopus database, with publication dates restricted from 2015 to 2025, document types limited to journal articles, and English as the primary language (Muthoifin et al., 2024).

From the search, 2,015 documents meeting the criteria were obtained. Subsequently, bibliometric analysis is conducted to explore research trends, collaboration patterns, and the evolution of research topics. This analysis includes several aspects, such as document analysis to identify research focus, network analysis to map relationships between key concepts, and co-occurrence analysis to reveal relationships between frequently co-occurring keywords in the literature (Rosyadi, et al., 2024).

The analytical tools used include Scopus for data collection, R and RStudio for statistical analysis and data visualization, as well as specialized bibliometric software such as VOSviewer and biblioMagika for network visualization and in-depth bibliometric analysis (Apriantoro et al., 2023). This bibliometric method enables researchers to identify dominant research streams and research directions, as well as understand the contribution of digital financial literacy to sustainable development and inclusive economies. The results of this analysis are expected to provide comprehensive insights and support further research development in this field. Figure 1 shows the Research Procedure (Wiranto, et al., 2024).

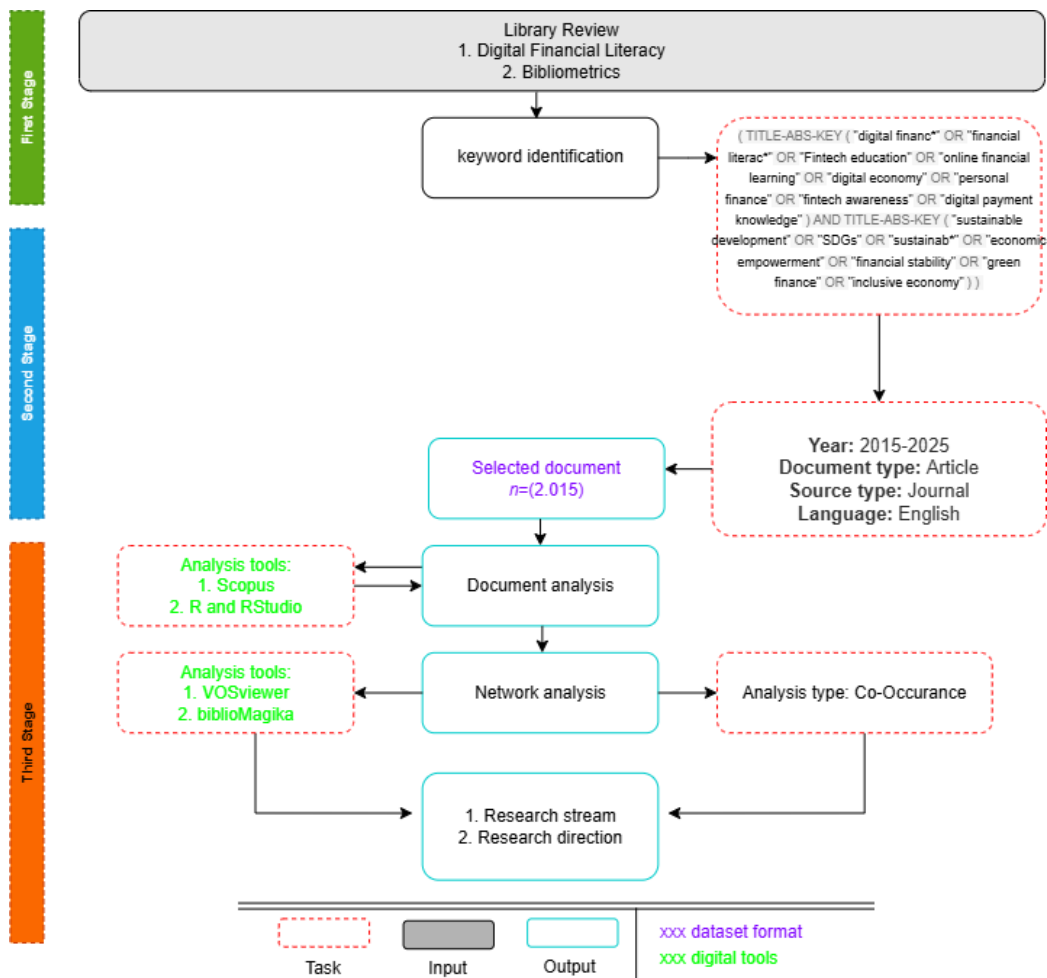


Figure 1. Research Procedure

RESULTS AND DISCUSSION

Main Information

The data in Table 1 derived from Scopus metadata provides a comprehensive overview of productivity, impact, and collaboration in research related to digital financial literacy and sustainable development over the period from 2015 to 2025. This analysis offers key insights into various bibliometric indicators (Amini, et al., 2024).

Over 11 years, the dataset encompasses 2,015 publications, indicating a substantial volume of research in this field. These publications involve 6,846 contributing authors, reflecting a high level of collaboration among researchers. Among the total publications, 1,488 papers have been cited, demonstrating that a significant portion of the research has gained recognition within the academic community. The total number of citations reaches 28,616, underscoring the influence and relevance of these studies in academic literature (Shobron & Anshori, 2020).

On average, each paper has been cited 14.20 times, indicating a moderate impact, while for cited papers, the citation rate increases to 19.23 per paper, suggesting that the most recognized works have a higher impact. The average number of citations per year stands at 2,861.60, highlighting consistent scholarly influence over time. Additionally, each author receives an average of 4.18 citations, reflecting individual contributions to the field (Wahid et al., 2022).

Collaboration is further evidenced by an average of 3.40 authors per paper, suggesting a strong tendency toward co-authorship. The total citations from the h-core papers amount to 18,291, representing the most influential papers in this dataset. The h-index of 70 indicates that 70 papers have been cited at least 70 times, demonstrating a high level of impact. Meanwhile, the g-index of 122 shows that the top 122 papers collectively receive a substantial number of citations, exceeding the h-index and highlighting the presence of highly influential publications (Faruk et al., 2025).

Finally, the m-index of 6.364, calculated by dividing the h-index by the number of years since the first publication, indicates stable and consistent growth in research impact over time.

Overall, these findings reveal that research on digital financial literacy and sustainable development is characterized by significant volume, high levels of collaboration, and substantial academic impact. The bibliometric indicators, particularly the h-index and g-index, confirm the presence of highly influential papers, while the m-index illustrates a steady increase in research influence over the years (Afiah, 2025; Mabrouk, 2025; Shakilla & Saputro, 2025).

Table 1. Main information

Main Information	Data
Publication Years	2015 – 2025
Total Publications	2015
Citable Year	11
Number of Contributing Authors	6846
Number of Cited Papers	1488
Total Citations	28.616
Citation per Paper	14,20
Citation per Cited Paper	19,23
Citation per Year	2861,60
Citation per Author	4,18
Author per Paper	3,40
Citation sum within h-Core	18.291
h-index	70
g-index	122
m-index	6,364

Evolution Of Published Studies Concerning Digital Financial Literacy

Table 2 shows the analysis of the evolution of studies on digital financial literacy published between 2015 and 2025 revealing several notable trends and patterns. The total number of publications has increased significantly, from 12 in 2015 to 828 in 2024, reflecting a growing interest in this research area. The year 2024 recorded the highest number of publications, accounting for 41.09% of the total output during this period. The percentage of annual publications has also shown a consistent rise, with significant surges in 2022 (14.79%) and 2023 (20.10%).

The total number of citations has experienced a substantial increase, from 134 in 2015 to 10,140 in 2022. The highest citation count occurred in 2022, demonstrating the significant impact of research published in that year. The average number of citations per paper varies across the years, peaking in 2018 at 51.61 citations per paper. However, papers published in 2025 have the lowest citation average (0.30), likely due to the limited time available for them to be cited. Similarly, the average number of citations per cited paper reached its highest point in 2018 at 55.17 citations per cited

paper, while the lowest was recorded in 2025 (2.11), which may also be attributed to the shorter citation window (Utami et al., 2025).

The number of citable years has gradually decreased, from 11 years in 2015 to only one year in 2025, which affects the citation potential of more recent papers. This trend highlights key insights into the evolution of research in this domain. The increase in publication volume and citation impact over the years indicates a rising interest and growing influence of studies on digital financial literacy. Specific years, such as 2018 and 2022, stand out due to their high citation rates, suggesting that research published during these years has had a significant impact. However, newer publications, particularly those from 2025, exhibit lower citation averages, likely because they have had less time to be recognized and referenced in academic literature (Akmal, 2024; Al-hakim, 2024).

Overall, the data suggests that digital financial literacy research has undergone rapid growth in both publication output and research impact. While some years have contributed significantly to academic discourse, newer studies face challenges in accumulating citations due to their recent publication (Mafindi & Department, 2024).

Table 2. The evolution of studies on digital financial literacy

Year	TP	%	TC	C/P	C/CP	Citable Year
2015	12	0,60%	134	11,17	14,89	11
2016	12	0,60%	212	17,67	17,67	10
2017	16	0,79%	680	42,50	42,50	9
2018	31	1,54%	1600	51,61	55,17	8
2019	62	3,08%	1041	16,79	18,93	7
2020	90	4,47%	3057	33,97	37,74	6
2021	127	6,30%	3177	25,02	26,70	5
2022	298	14,79%	10140	34,03	35,09	4
2023	405	20,10%	5852	14,45	15,86	3
2024	828	41,09%	2683	3,24	5,48	2
2025	134	6,65%	40	0,30	2,11	1
Grand Total	2015	100,00%	28616	14,20	19,23	11

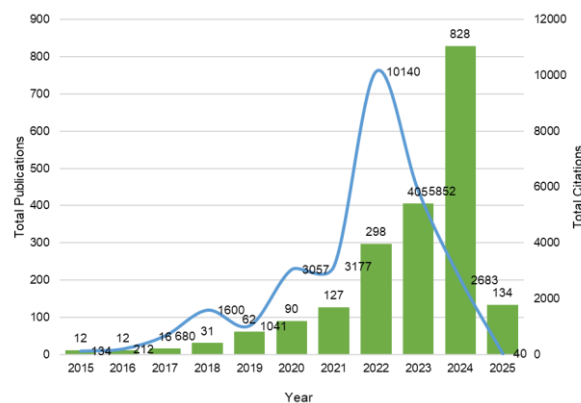


Figure 2. Publications by year with a comparison of total publications and citations

Figure 2 shows publications by year with a comparison of total publications and citations. The analysis of the evolution of studies on digital financial literacy from 2015 to 2025 is further reinforced by the data presented in the graph. The number of publications has shown a significant upward trend, particularly from 2020 onward, reaching its peak in 2024 with 828 publications. This sharp increase indicates growing academic interest in the topic, especially in recent years. However, the citation trend follows a different trajectory, peaking in 2022 with 10,140 citations before experiencing a substantial decline. This suggests that research published before 2022 had a significant academic impact, whereas more recent publications have not yet had sufficient time to accumulate

citations. The ratio of citations per publication also highlights an interesting pattern—while 2022 had only 298 publications, they garnered an exceptionally high number of citations, demonstrating their strong influence on the field. In contrast, despite the highest number of publications occurring in 2024, total citations for that year remained relatively low at 2,683, suggesting that newer research takes time to gain recognition within the academic community. This dynamic highlights the challenge of maintaining long-term research relevance, as studies published three to five years prior tend to have a more substantial impact compared to newly released work. Overall, the graph supports the conclusion that digital financial literacy has become a rapidly expanding field of study, with increasing research output. However, sustaining the influence of this research requires a continued focus on high-quality studies that not only contribute to publication growth but also have a lasting academic impact (Fatimah et al., 2023).

Most Relevant Country

The distribution of total publications (TP) on digital financial literacy across countries reveals significant regional disparities in research output. China leads by a substantial margin with 1,036 publications, dominating global contributions in this field. This indicates China's strong focus on digital financial literacy research, likely driven by its rapid technological advancements and growing digital economy. The United States follows with 107 publications, reflecting its consistent academic engagement but at a significantly lower scale than China. In Europe, Russia stands out with 103 publications, followed by the United Kingdom (77) and Ukraine (61), suggesting active research efforts in digital finance within the region. Meanwhile, Asia emerges as a key contributor, with India (100), Indonesia (92), Malaysia (92), and Pakistan (64) playing notable roles. The presence of multiple Asian countries in the top contributors indicates the region's increasing emphasis on financial literacy in response to expanding digital financial services. In Oceania, Australia contributes 57 publications, highlighting its engagement in digital financial literacy research despite a smaller research output compared to leading Asian and European nations. Overall, the data suggests that Asia dominates the research landscape, with China significantly ahead, while North America, Europe, and Oceania contribute at varying levels. This distribution reflects differences in research priorities, financial technology adoption, and economic contexts among these regions. Table 3 shows the most relevant country (A'yun Tamami et al., 2024; Mahmudulhassan et al., 2023).

Table 3. Most relevant country

Country	Continent	TP
China	Asia	1036
United States	North America	107
Russian Federation	Europe	103
India	Asia	100
Indonesia	Asia	92
Malaysia	Asia	92
United Kingdom	Europe	77
Pakistan	Asia	64
Ukraine	Europe	61
Australia	Oceania	57

Institution

Table 4 the analysis of institutional contributions to digital financial literacy research reveals that Chinese universities dominate the field. Southwestern University of Finance and Economics and Zhongnan University of Economics and Law lead with 27 publications each, indicating their strong focus on financial and economic studies. Beijing Institute of Technology follows with 24 publications, highlighting its engagement in the intersection of finance and technology. Anhui University of Finance and Economics (21) and Xinjiang University (20) also make significant contributions, reflecting a broader institutional commitment to research in digital finance across different regions of China. Hunan University and Shandong University of Finance and Economics, both with 19 publications, further emphasize the role of specialized financial institutions in advancing knowledge in this domain. Similarly, the University of International Business and Economics (18), Wuhan University (18), and Shandong University (18) demonstrate consistent research efforts. The concentration of top contributors within China underscores the country's leadership in digital financial

literacy research, likely driven by its rapid fintech development and the increasing importance of digital finance in its economy.

Table 4. Institutional contributions

Institution	TP
Southwestern University of Finance and Economics	27
Zhongnan University of Economics and Law	27
Beijing Institute of Technology	24
Anhui University of Finance and Economics	21
Xinjiang University	20
Hunan University	19
Shandong University of Finance and Economics	19
University of International Business and Economics	18
Wuhan University	18
Shandong University	18

Most Productive Author

The analysis of the most productive authors in digital financial literacy research reveals significant variations in publication output and impact. Sara F. Rushinek and Avi Rushinek from the University of Miami, United States, are the most productive authors with five publications each. However, their impact remains relatively low, as indicated by their total citations (TC) of only two and a citation per paper (C/P) of 0.40. This suggests that despite their productivity, their research has not yet gained widespread academic recognition. In contrast, Jong-Min Choe from Kyungpook National University, South Korea, stands out with only three publications but a remarkable total of 171 citations, yielding an average of 57 citations per paper. His high h-index and g-index of three indicate strong scholarly influence. Similarly, Lawrence A. Gordon from the University of Kansas, United States, has only two publications but an exceptional 284 total citations, with an impressive citation per paper ratio of 142, suggesting that his research contributions are highly regarded within the academic community (Hasan, 2021).

Meanwhile, authors such as Guangying Chen from Henan Coal Chemical Industry Group, China, and Quanxiu He from Henan Polytechnic University, China, have contributed two papers each but have received only three citations in total, indicating limited recognition. James E. Hunton from Bentley University, United States, has a moderate impact with 38 total citations and an h-index of two. On the lower end of the spectrum, Ronald H. Rasch from Auburn University, United States, and Anne Wu from National Chengchi University, Taiwan, have each contributed a single publication, with Wu demonstrating a significantly higher impact (49 citations) compared to Rasch (2 citations). Notably, Xue Jing Liu from Bohai University, China, has one publication but no citations, indicating that their work has not yet gained traction in the academic discourse.

These findings highlight key trends in research productivity and impact. While some authors, particularly those from the United States and South Korea, have established strong academic influence despite a lower number of publications, others—especially those from China—have contributed more but with lower citation impact. This suggests that the quality, relevance, and dissemination of research are more critical than sheer publication volume in determining scholarly influence. Future research should explore the methodologies and themes used by highly cited authors to understand the factors driving academic recognition in the field of digital financial literacy. Table 5 shows the most productive authors.

Table 5. Most productive authors

Full Name	TP	NCP	TC	C/P	C/CP	h	g	m
Rushinek, Sara F.	5	2	2	0,40	1,00	1	1	0,023
Rushinek, Avi	5	2	2	0,40	1,00	1	1	0,023
Choe, Jong-Min	3	3	171	57,00	57,00	3	3	0,091
Gordon, Lawrence A.	2	2	284	142,00	142,00	2	2	0,040

Chen, Guangying	2	2	3	1,50	1,50	1	1	0,063
He, Quanxiu	2	2	3	1,50	1,50	1	1	0,063
Hunton, James E.	2	2	38	19,00	19,00	2	2	0,074
Rasch, Ronald H.	1	1	2	2,00	2,00	1	1	0,038
Liu, Xue Jing	1	0	0	0,00	0,00	0	0	0,000
Wu, Anne	1	1	49	49,00	49,00	1	1	0,063

Productivity Patterns of Authors and Research Contributions

Table 6 shows productivity patterns of authors and research contributions based on Lotka's Law, revealing a strong concentration of contributions among a small number of highly productive authors. The majority of authors, 285 individuals (78.73%), have only contributed a single document, accounting for 60% of the total contributions. This aligns with Lotka's Law, which suggests that most researchers in a given field publish only once, while a smaller proportion contributes multiple times.

A significantly smaller group of authors, 30 individuals (8.29%), have written two documents, contributing to 15% of the total output. As the number of publications per author increases, the proportion of authors decreases, with only six authors (1.66%) contributing three documents, four authors (1.10%) contributing four, and ten authors (2.76%) contributing five documents. These figures indicate a sharp decline in the number of authors as productivity increases, reinforcing the characteristic inverse relationship observed in Lotka's distribution.

Interestingly, a group of 21 highly prolific authors (5.80%) have contributed seven documents each, making up a total of 147 contributions. This suggests the presence of a core group of experts or research teams who are consistently advancing the field. The total of contributions (612) represents 90.71% of the total documented output, further highlighting the critical role of frequent contributors in shaping the discourse on digital financial literacy.

These findings emphasize that while the majority of researchers engage with the topic only occasionally, a small group of dedicated authors plays a crucial role in knowledge production and academic discourse. This pattern suggests that collaboration with or citation of highly productive researchers may enhance the visibility and impact of future studies. Additionally, further investigation into the research themes and methodologies of these prolific authors could provide valuable insights into emerging trends and influential contributions in the field.

Table 6. Productivity patterns of authors and research contributions based on Lotka's Law

Document Written	N. of Authors	Proportion of Authors	Total N. of Contributions	Lotka's Law
1	285	78,73%	285	60,00%
2	30	8,29%	60	15,00%
3	6	1,66%	18	6,67%
4	4	1,10%	16	3,75%
5	10	2,76%	50	2,40%
6	6	1,66%	36	1,67%
7	21	5,80%	147	1,22%
Grand Total	362	100,00%	612	90,71%

Table 7 shows the Kolmogorov-Smirnov (K-S) test analysis on the observed distribution and theoretical distribution of authorship in research publications on digital financial literacy provides insights into author productivity patterns. Based on data generated using biblioMagika®, it is evident that the majority of authors (82.85%) contributed to only one publication, while the percentage of authors contributing to more than one publication declined significantly. A total of 91.57% of authors contributed to a maximum of two publications, and only 6.98% of authors contributed to three or more publications.

The expected theoretical distribution exhibits a similar pattern, where most authors are anticipated to contribute to a single publication (69.23%), with a gradual decline in the number of highly productive authors. However, there is

a discrepancy between the observed and theoretical distributions, as indicated by a $D_{\max}$ value of 0.13620. This difference suggests that there are more low-productivity authors (one publication) than theoretically expected.

Overall, the results of the K-S test indicate that research in digital financial literacy is dominated by low-productivity authors, with only a few contributing significantly through multiple publications. These findings align with Lotka's Law, which states that most authors in a given field tend to produce only a few publications, while only a small number of authors contribute extensively. The deviation between the observed and theoretical distributions also highlights an inconsistency that may be attributed to factors such as research collaboration, topical focus, or the evolving dynamics of the research field itself.

Table 7. Kolmogorov-Smirnov (K-S) test analysis on the observed distribution and theoretical distribution of authorship

Observed				Theoretical			
N. of Pubs.	N. of Authors (y_x)	% of Authors	Cum. % of Authors		Expected % of Authors	Cum. Expected % of Authors	D
x	y	$y_x/\Sigma y_x$	$\Sigma(y_x/\Sigma y_x)$	$1/x^n$	$f_e = C(1/x^n)$	Σf_e	$D_{\max}$
1	285	0,82849	0,82849	1,00000	0,69228	0,69228	0,13620
2	30	0,08721	0,91570	0,23326	0,16148	0,85377	0,06193
3	6	0,01744	0,93314	0,09955	0,06892	0,92268	0,01046
4	4	0,01163	0,94477	0,05441	0,03767	0,96035	-0,01558
5	10	0,02907	0,97384	0,03405	0,02357	0,98392	-0,01009
6	6	0,01744	0,99128	0,02322	0,01608	1,00000	-0,00872
7	21	0,06105	1,05233	0,01680	0,01163	1,01163	0,04070
Grand Total	362	1,05233		1,46129			

The analysis of the most cited research articles on digital financial literacy reveals key thematic areas and influential contributions to the field. The most cited paper, authored by Ozili (2018) in *Borsa Istanbul Review*, examines the impact of digital finance on financial inclusion and stability, accumulating 901 citations with an impressive citation per year (C/Y) rate of 112.63. This highlights its foundational role in exploring how digital financial systems contribute to broader economic stability.

Recent studies have also gained significant academic attention, such as Pan et al. (2022) in the *Journal of Business Research*, which investigates the role of the digital economy in driving total factor productivity. With 571 citations and a C/Y of 142.75, this study underscores the transformative potential of digitalization in economic growth. Similarly, Luo et al. (2023) in *Business Strategy and the Environment* discusses how digital economy development enhances green innovation in China, receiving 400 citations with a high C/Y of 133.33, reflecting the growing interest in the intersection between digitalization and sustainability.

Environmental and sustainability themes are prevalent among the most cited articles. Feng et al. (2022) in *Structural Change and Economic Dynamics* link digital finance to green technology innovation, earning 423 citations (C/Y 105.75), while Litvinenko (2020) in *Natural Resources Research* explores digital economy contributions to technological advancements in the mineral sector, accumulating 398 citations (C/Y 66.33). The increasing number of citations in these areas signifies the rising importance of digital finance in fostering sustainable economic practices.

Other notable contributions include research on the Metaverse and smart cities by Allam et al. (2022), which discusses digitalization's impact on urban sustainability, collecting 344 citations (C/Y 86.00). Similarly, studies by Arner et al. (2020) and Demir et al. (2022) emphasize the role of FinTech in financial inclusion and income inequality, with 329 (C/Y 54.83) and 328 (C/Y 82.00) citations, respectively. Additionally, Ma et al. (2022) in

Technology in Society investigated the relationship between the digital economy and carbon emissions, highlighting the moderating role of research and development investments, securing 321 citations (C/Y 80.25).

Overall, these highly cited papers indicate that digital financial literacy research is increasingly intersecting with economic productivity, financial inclusion, and environmental sustainability. The high citation rates of recent studies suggest that digital finance and its implications for sustainable development, economic efficiency, and financial inclusion remain central concerns for scholars and policymakers alike.

Table 8. Most cited research articles

No.	Author(s)	Title	Source Title	TC	C/Y
1	(Ozili, 2018)	Impact of digital finance on financial inclusion and stability	Borsa Istanbul Review	901	112,63
2	(Pan et al., 2022)	Digital economy: An innovation driver for total factor productivity	Journal of Business Research	571	142,75
3	(Feng et al., 2022)	Environmental decentralization, digital finance, and green technology innovation	Structural Change and Economic Dynamics	423	105,75
4	(Luo et al., 2023)	Digitalization and sustainable development: How could digital economy development improve green innovation in China?	Business Strategy and the Environment	400	133,33
5	(Litvinenko, 2020)	Digital Economy as a Factor in the Technological Development of the Mineral Sector	Natural Resources Research	398	66,33
6	(Allam et al., 2022)	The Metaverse as a Virtual Form of Smart Cities: Opportunities and Challenges for Environmental, Economic, and Social Sustainability in Urban Futures	Smart Cities	344	86,00
7	(Arner et al., 2020)	Sustainability, FinTech, and Financial Inclusion	European Business Organization Law Review	329	54,83
8	(Demir et al., 2022)	Fintech, financial inclusion, and income inequality: a quantile regression approach	European Journal of Finance	328	82,00
9	(Ma et al., 2022)	The nexus between the digital economy and carbon dioxide emissions in China: The moderating role of investments in research and development	Technology in Society	321	80,25
10	(Ozturk & Ullah, 2022)	Does digital financial inclusion matter for economic growth and environmental sustainability in OBRI economies? An empirical analysis	Resources, Conservation, and Recycling	295	73,75

Figure 3 shows the analysis of author keywords in research publications on digital financial literacy revealing dominant themes shaping the discourse. "Digital economy" emerges as the most frequently used keyword, appearing in 566 documents, indicating its centrality in discussions on financial technology and economic transformation. Following this, "sustainable development" (192) and "financial literacy" (189) highlight the strong connection between digital finance, economic growth, and sustainability goals.

Key financial themes such as "digital finance" (151), "financial inclusion" (119), and "digital transformation" (102) suggest that research is largely focused on how digitalization influences access to financial services and the broader economy. Additionally, "sustainability" (99) and "digital financial inclusion" (82) reinforce the growing emphasis on financial technology's role in fostering equitable and environmentally conscious economic practices.

Geographical and technological aspects also appear in the keyword trends. "China" (80) is the only country-specific keyword in the list, suggesting its prominence in digital financial research. Meanwhile, terms like "digitalization" (64), "FinTech" (60), and "technological innovation" (40) indicate a strong interest in technological advancements driving financial evolution. Sustainability-related terms, including "green innovation" (56) and "green finance" (55), further emphasize the intersection between digital finance and environmental responsibility.

Overall, the keyword distribution suggests that digital financial research is multi-dimensional, encompassing economic, technological, and sustainability aspects. The significant presence of terms related to financial literacy,

empowerment, financial inclusion, and sustainable development. The field is highly collaborative, with 6,846 authors contributing, and its strong academic impact is reflected in 28,616 citations and an h-index of 70, with several influential papers shaping the discourse. Geographically, China leads the research landscape, followed by the United States, Russia, and India, with Chinese institutions playing a dominant role in digital financial innovation. In terms of author productivity, most researchers contribute only a single publication, aligning with Lotka's Law, while a small group of highly productive scholars, particularly from the United States and South Korea, have made substantial contributions with high citation impacts. The research focus centers on key themes such as the digital economy, financial inclusion, sustainability, and technological innovation, with recent studies increasingly examining digital finance's role in environmental sustainability, economic productivity, and social equity. However, while the field has seen rapid expansion, newer publications face challenges in accumulating citations due to their recent release, highlighting the need for sustained, high-quality research to ensure long-term academic influence. Furthermore, the dominance of certain regions and institutions underscores the need for broader global collaboration to address diverse financial literacy needs. Ultimately, digital financial literacy remains a critical research area with profound implications for achieving the SDGs, emphasizing the importance of integrating financial literacy into education and policy frameworks to enhance financial inclusion, reduce inequalities, and foster sustainable economic growth. As digital financial services continue to evolve, future research should address emerging challenges such as gender disparities in access to digital finance and the environmental consequences of digitalization to ensure that the benefits of financial literacy are equitably distributed and aligned with global sustainability goals.

REFERENCES

- [1] A'yun Tamami, F. Q., Nur Rochim Maksum, M., Rahmawati, S., & Anwari, A. (2024). Islamic Education for Disabilities: Exploring Psychological Approaches through Bibliometric Analysis. *Multicultural Islamic Education Review*, 2(1), 45–58. <https://doi.org/10.23917/mier.v2i1.4487>
- [2] Afiyah, I. M. (2025). The Existence of Library Literacy in Indonesia in the Millennial Era : Strategies for Improving the Quality of Education to Support the Sustainable Development Goals (SDG ' s). *Solo International Colaboration and Publication of Social Sciences and Humanities*, 3(1), 41–52.
- [3] Akmal, M. (2024). Anies Rasyid Baswedan's Thoughts on the Concept of Fair and Wise Leadership. *Journal of World Thinkers*, 1(2), 123–130.
- [4] Al-hakim, A. P. Q. (2024). Smart Leaders: Ganjar Pranowo Sat-Set's Leadership Model and Style. *Journal of World Thinkers*, 1(2), 131–138.
- [5] Allam, Z., Sharifi, A., Bibri, S. E., Jones, D. S., & Krogstie, J. (2022). The Metaverse as a Virtual Form of Smart Cities: Opportunities and Challenges for Environmental, Economic, and Social Sustainability in Urban Futures. *Smart Cities*, 5(3), 771–801. <https://doi.org/10.3390/smartcities5030040>
- [6] AN, A. N., . M., . M., & . W. (2024). Bibliometric Analysis of Islamic Education and Character Development in Religious Education Practices in Indonesia. *Pakistan Journal of Life and Social Sciences (PJLSS)*, 22(2), 1231–1245. <https://doi.org/10.57239/PJLSS-2024-22.2.0086>
- [7] An, A. N., Tamami, F. Q. A., Daud, Z., Salleh, N. M., Ishak, M. H. bin, & Muthoifin, M. (2025). Understanding the Integration of Deep Learning and Artificial Intelligence in Quranic Education and Research through Bibliometric Analysis. *Educational Process: International Journal*, 14. <https://doi.org/10.22521/edupij.2025.14.12>
- [8] Andri Nirwana, A. N., Mahmudulhassan, Ali, M., M, Waston, & Senathirajah, A. R. B. S. (2024). The Intersection of Quranic Studies and Modern Technology: A Bibliometric Analysis of Academic Publications from 2000 to 2024. *Qubahan Academic Journal*, 4(4), 178–190. <https://doi.org/10.48161/qaj.v4n4a981>
- [9] Andri N, A. N., Mahmudulhassan, Marshal, F. D., M, & Fadli, N. (2024). Human Rights and Social Justice in Quranic Contexts: A Global Trend. *Legality: Jurnal Ilmiah Hukum*, 32(2), 453–471. <https://doi.org/10.22219/ljih.v32i2.35088>
- [10] Amelia, I., M, & Eprahim Ali, A. B. (2024). Islamic accounting: Ethics and contextualization of recording in Muamalah transactions. *Multidisciplinary Reviews*, 7(8), 2024132. <https://doi.org/10.31893/multirev.2024132>
- [11] Anwar, S., Permatasari, K. G., Nur, S., Munawar, M., & Shabrina, M. N. (2024). History of Muhammadiyah in Blora Mustika City : Development and Challenges. *Pakistan Journal of Life and Social Sciences (PJLSS)*, 22, 812–821.

- [12] Anwar, S., Sukisno, S., Waston, W., Nirwana, A., Utami, Y., Reistanti, A. P., Nurhartanto, A., & Muthoifin, M. (2024). Development of the concept of Islamic education to build and improve the personality of school-age children. *Multidisciplinary Reviews*, 7(8), 2024139. <https://doi.org/10.31893/multirev.2024139>
- [13] Apriantoro, M. S., Dartim, & Andriyani, N. (2024). Bibliometric Analysis of Carbon Capture and Storage (CCS) Research: Evolution, Impact, and Future Directions. *Challenges in Sustainability*, 12(2), 152–162. <https://doi.org/10.56578/cis120205>
- [14] Apriantoro, M. S., Faradilla, S., Ashfahany, A. El, Maruf, A., & Aziza, N. A. (2024). Quantifying Intellectual Terrain: Islamic Jurisprudence, Ethical Discourse, and Scholarly Impact. *Suhuf*, 36(1), 78–85. <https://doi.org/10.23917/suhuf.v36i1.4367>
- [15] Apriantoro, M. S., Maheswari, S. G., M, M., & ... (2023). The Potential of Islamic Mutual Funds: Research Stream and Future Direction. *Iranian Economic Review*.
- [16] Apriantoro, M. S., M, M., & Athief, F. H. N. (2023). Advancing social impact through Islamic social finance: A comprehensive bibliometric analysis. *International Journal of Advanced and Applied Sciences*, 10(11), 81–89. <https://doi.org/10.21833/ijaas.2023.11.011>
- [17] Ardiansyah., Waston., Mahmudulhassan., Daud, Z., & Salleh., Norsaleha Mohd., AN, Andri Nirwana., M. (2024). Tracing Trends in Quran Memorization and Cognitive Learning: A Bibliometric Analysis from the Scopus Database. *Pakistan Journal of Life and Social Sciences (PJLSS)*, 22(2), 1493–1509. <https://doi.org/10.57239/PJLSS-2024-22.2.00105>
- [18] Arner, D. W., Buckley, R. P., Zetzsche, D. A., & Veidt, R. (2020). Sustainability, FinTech and Financial Inclusion. *European Business Organization Law Review*, 21(1), 7–35. <https://doi.org/10.1007/s40804-020-00183-y>
- [19] Barry, A., & Elbanna, M. (2025). The Challenges Confronting Islamic Education in Guinea. *Solo Universal Journal of Islamic Education and Multiculturalism*, 3(1), 67–82.
- [20] Demir, A., Pesqué-Cela, V., Altunbas, Y., & Murinde, V. (2022). Fintech, financial inclusion and income inequality: a quantile regression approach. *European Journal of Finance*, 28(1), 86–107. <https://doi.org/10.1080/1351847X.2020.1772335>
- [21] Elbanna, M. (2025). Islamic Education Models: A Bibliometric Analysis of Challenges and Prospects. *Solo Universal Journal of Islamic Education and Multiculturalism*, 3(1), 11–26.
- [22] Elbanna, M., Barry, A., M., Afiyah, I., Nirwana, A., & Islam, R. (2025). Islamic Education Management Democracy and Harmony in Promoting Multiculturalism. *Journal of Management World*, 1(1), 445–456. <https://doi.org/10.53935/jomw.v2024i4.713>
- [23] Faruk, O., Jehyeh, M., Panah, M., E-sor, A., & Afiyah, I. (2025). Development of Islamic Banking in Rajshahi Bangladesh : An Exploratory and Existence Study. *Demak Universal Journal of Islam and Sharia*, 3(1), 95–108.
- [24] Fatimah, M., Husaen Sastra Negara, A., Waston, W., Hidayat, S., Abdul Adzim, A., & Zakir Husain, M. (2023). Teacher Communication Patterns To Improve Students' Religious Character Values At Vocational Schools. *Profetika: Jurnal Studi Islam*, 24(02), 217–225. <https://doi.org/10.23917/profetika.v24i02.2063>
- [25] Feng, S., Zhang, R., & Li, G. (2022). Environmental decentralization, digital finance and green technology innovation. *Structural Change and Economic Dynamics*, 61, 70–83. <https://doi.org/10.1016/j.strueco.2022.02.008>
- [26] Ferina Kansanaswa Devita, Hamidah, Kaneishia Farah Az-zahra, Muthi'ah, S. R. P. (2024). Tinjauan Kritis Terhadap Penyembelihan Kambing Kendhit Untuk Tolak Bala Dalam Perspektif Aqidah Islam. *Maktabah Reviews*, 1(1), 43–72.
- [27] Firdaus, N., M., Sukisno, Anwar, S., Ulum, M. N., Irchamni, A., Widodo, & Murtyaningsih, R. (2024). Profit-Sharing Practices To Increase Profits and Development of Indonesian Sharia Banking. *Revista de Gestao Social e Ambiental*, 18(6), 1–17. <https://doi.org/10.24857/rgsa.v18n6-005>
- [28] Hamid, N., Sutama, Hidayat, S., Waston, Nirwana, A., & Muthoifin. (2024). Creative Leadership: an Implementing Study of Transformative Leadership Models in High School for Sustainable Development Goals. *Journal of Lifestyle and SDG'S Review*, 5(1), 1–18. <https://doi.org/10.47172/2965-730X.SDGsReview.v5.n01.pe01686>
- [29] Hasan, M. A. K. (2021). The Component Characteristics of A Favorite Teacher In The Era of Industrial Revolution 4.0 (Study in verses 129 and 151 of Surah al-Baqarah). *Profetika: Jurnal Studi Islam*, 23(1), 52–66. <https://journals.ums.ac.id/index.php/profetika/article/view/16794>

-
- [30] Kelkusa, M., Anurogo, D., & Syarif, U. A. (2023). The Phenomenon and Existence of Corruption in the 5.0 Era : Moral and Ethical Perspectives. *Solo International Collaboration and Publication of Social Sciences and Humanities*, 1(2), 78–87. <https://doi.org/https://doi.org/10.61455/sicopus.v1i02.37>
- [31] Koskelainen, T., Kalmi, P., Scornavacca, E., & Vartiainen, T. (2023). Financial literacy in the digital age—A research agenda. *Journal of Consumer Affairs*, 57(1), 507–528. <https://doi.org/10.1111/joca.12510>
- [32] Li, J., & Meyer-Cirkel, A. (2021). Promoting financial literacy through a digital platform: A pilot study in Luxembourg. *International Journal of Finance and Economics*, 26(1), 73–87. <https://doi.org/10.1002/ijfe.1777>
- [33] Litvinenko, V. S. (2020). Digital Economy as a Factor in the Technological Development of the Mineral Sector. *Natural Resources Research*, 29(3), 1521–1541. <https://doi.org/10.1007/s11053-019-09568-4>
- [34] López-Medina, T., Mendoza-ávila, I., Contreras-Barraza, N., Salazar-Sepúlveda, G., & Vega-Muñoz, A. (2022). Bibliometric mapping of research trends on financial behavior for sustainability. *Sustainability (Switzerland)*, 14(1). <https://doi.org/10.3390/su14010117>
- [35] Luo, S., Yimamu, N., Li, Y., Wu, H., Irfan, M., & Hao, Y. (2023). Digitalization and sustainable development: How could digital economy development improve green innovation in China? *Business Strategy and the Environment*, 32(4), 1847–1871. <https://doi.org/10.1002/bse.3223>
- [36] Ma, Q., Tariq, M., Mahmood, H., & Khan, Z. (2022). The nexus between digital economy and carbon dioxide emissions in China: The moderating role of investments in research and development. *Technology in Society*, 68. <https://doi.org/10.1016/j.techsoc.2022.101910>
- [37] Mabrouk, A. (2025). Human Resource Management in the Age of Artificial Intelligence : Concepts Tools and Steps. *Solo International Collaboration and Publication of Social Sciences and Humanities*, 3(1), 1–12.
- [38] Mafindi, K. A., & Department. (2024). Training and Staff Development a Vital Means for Academic Productivity in Nigerian Colleges of Education. *Maktabah Reviews*, 1(2), 119–132.
- [39] Mahendra, S., Kubota, E., MS, A. N. F., Dwiyantri, T., & Syafirah, F. I. (2022). Policy for Improving Digital Literature in Indonesia SDGs Based. *Proceedings Series on Physical & Formal Sciences*, 3, 18–24. <https://doi.org/10.30595/pspfs.v3i.259>
- [40] Mahmudulhassan, M., Waston, W., & Nirwana AN, A. (2023). The Rights and Status of Widows in Islam: A Study from the Perspective of Multicultural Islamic Education in the Context of Bangladesh. *Multicultural Islamic Education Review*, 1(1), 01–14. <https://doi.org/10.23917/mier.v1i1.2674>
- [41] Mpofu, F. Y. (2023). Gender disparity and Digital Financial inclusion in Advancing the Attainment of Sustainable Development Goals in Developing Countries. *International Journal of Innovation in Management, Economics and Social Sciences*, 3(3), 49–70. <https://doi.org/10.59615/ijimes.3.3.49>
- [42] Mpofu, F. Y. (2024). Industry 4.0 in Finance, Digital Financial Services and Digital Financial Inclusion in Developing Countries: Opportunities, Challenges, and Possible Policy Responses. *International Journal of Economics and Financial Issues*, 14(2), 120–135. <https://doi.org/10.32479/ijefi.15081>
- [43] Muthoifin. (2019). Shariah hotel and mission religion in surakarta indonesia. *Humanities and Social Sciences Reviews*, 7(4), 973–979. <https://doi.org/10.18510/hssr.2019.74133>
- [44] Muthoifin. (2021). The Performance of Sharia Financing Amid the COVID-19 Pandemic in Indonesia. *Universal Journal of Accounting and Finance*, 9(4), 757–763. <https://doi.org/10.13189/ujaf.2021.090421>
- [45] Mahmudulhassan., Khondoker, S. U. A., M, Waston, N, A., Ardiansyah, & Dani, A. A. (2025). Women, Islamic Education, and Socioeconomics for the Sustainable Development Goals (Sdgs): a Bibliometric Study of Understanding From 1880 To 2024. *Journal of Lifestyle and SDG'S Review*, 5(2), 1–20. <https://doi.org/10.47172/2965-730X.SDGsReview.v5.no2.pe01737>
- [46] Muthoifin, M. (2024b). The phenomenon of the rise of online transactions : A case study Tokopedia . com and Bukalapak . com. *Multidisciplinary Reviews*.
- [47] Marshal, F. D., M., Andri, N. A. N., Hakim, L., Heravi, S. J. U. D., Zinah, M. M. A., & Saib, A. (2025). Islamic Banking: a Comprehensive Review of the Definition, Strategy, Legal Framework, and Practice of Contracts in the Modern Financial System. *Journal of Lifestyle and SDG'S Review*, 5(1), 1–23. <https://doi.org/10.47172/2965-730X.SDGsReview.v5.no1.pe03067>
- [48] Najib. Y., M, Isman, I. R., & Ishmah Afiah, M. (2024). Fostering The Ummah ' S Economy Through The Stockinvestment System : The Views Of The Mui For Sustainabledevelopment Goals (Sdgs). *Journal of Lifestyle and SDGs Review*, 4, 1–19.

- [49] Nandru, P., Chendragiri, M., & Arulmurugan, V. (2024). Socioeconomic determinants of ownership of payment cards, mobile money account, and government remittances of digital financial services: evidence from India. *Journal of Financial Economic Policy*, 16(2), 247–271. <https://doi.org/10.1108/JFEP-07-2023-0176>
- [50] Nirwana, A., Arfan, F., M, Daud, Z., Amin, S., Hidayat, S., & Marshal, F. D. (2024). the Role of Traditional Salt Production in Achieving Halal Standards of the Ulamaconsultative Council: Implications for Sustainable Development Goals. *Journal of Lifestyle and SDG'S Review*, 4(2), 1–47. <https://doi.org/10.47172/2965-730X.SDGsReview.v4.n02.pe01721>
- [51] Nuha, S. S., M. (2020). Education and Leadership in Indonesia: A Triloggy Concept in Islamic Perspective. *Universal Journal of Educational Research*, 8(9), 4282–4286. <https://doi.org/10.13189/ujer.2020.080954>
- [52] Oktatianti, T., M., Afyah, I., Astuti, A. A., M., Nirwana, A., Geraldine, E., & Kingdom, U. (2025). The Election and the Criteria for Ideal Leaders : A Leadership Management Study Based on the Principles of Justice and Wisdom. *Journal of Management World*, 1(1), 341–350. <https://doi.org/10.53935/jomw.v2024i4.673>
- [53] Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 18(4), 329–340. <https://doi.org/10.1016/j.bir.2017.12.003>
- [54] Ozturk, I., & Ullah, S. (2022). Does digital financial inclusion matter for economic growth and environmental sustainability in OBRI economies? An empirical analysis. *Resources, Conservation and Recycling*, 185. <https://doi.org/10.1016/j.resconrec.2022.106489>
- [55] Pan, W., Xie, T., Wang, Z., & Ma, L. (2022). Digital economy: An innovation driver for total factor productivity. *Journal of Business Research*, 139, 303–311. <https://doi.org/10.1016/j.jbusres.2021.09.061>
- [56] Pandey, A., Kiran, R., & Sharma, R. K. (2022). Investigating the Impact of Financial Inclusion Drivers, Financial Literacy and Financial Initiatives in Fostering Sustainable Growth in North India. *Sustainability (Switzerland)*, 14(17). <https://doi.org/10.3390/su141711061>
- [57] Ranabhat, D. (2023). Impact of Financial Literacy on the Socio-Economic Well-being of People in Kaski District, Nepal. *Economic Journal of Development Issues*, 36(1–2), 1–23. <https://doi.org/10.3126/ejdi.v36i1-2.63905>
- [58] Rhezaldi, A. Y., M. (2024). Community economic empowerment through mosque management to improve people's welfare. *Multidisciplinary Reviews*, 7(8). <https://doi.org/10.31893/multirev.2024134>
- [59] Rosyadi, I., M, & Prasetyo, H. (2024). The phenomenon of the rise of online transactions: A case study Tokopedia.com and Bukalapak.com sharia perspective. *Multidisciplinary Reviews*, 7(8), 2024133. <https://doi.org/10.31893/multirev.2024133>
- [60] Rachmadie, F. T., Apriantoro, M. S., M., Nirwana, A., & Bernardlauwers, B. (2025). Bibliometric Analysis Of The Socialization Of Islamic Inheritance Law In The Scopus Database And Its Contribution To Sustainable Development Goals (Sdgs). *Journal of Lifestyle and SDG'S Review*, 5, 1–24.
- [61] Shobron, S., M, & Anshori, A. (2020). Method for Developing Soft Skills Education for Students. *Universal Journal of Educational Research*, 8(7), 3155–3159. <https://doi.org/10.13189/ujer.2020.080744>
- [62] Shobron, S., M, & Rahman, S. A. (2019). Humanist islam in indonesia ahmad syafii maarif perspective. *Humanities & Social Sciences Reviews*, 7(6), 780–786. <https://giapjournals.com/index.php/hssr/article/view/hssr.2019.76118/2384>
- [63] Saib, A., & Elbanna, M. (2025). Riba in the Sharia: Its Conceptual Framework and Implications for Contractual Practices. *Demak Universal Journal of Islam and Sharia*, 3(1), 67–80.
- [64] Shakilla, U., & Saputro, E. P. (2025). Revolutionizing Management : The Role of AI and Technology in Modern Leadership Practices. *Solo International Colaboration and Publication of Social Sciences and Humanities*, 3(1), 53–68.
- [65] Sri Mega Indah Umi Zulfiani, M., & Rosyadi, I. (2024). Corporate Social Responsibility (Csr) Practices Of Shariacconsumer Cooperatives For Sustainable Development Goals (Sdgs) Ethical Perspective. *Journal of Lifestyle and SDGs Review*, 4, 1–20.
- [66] Subhi Apriantoro, M., & Herviana, J. (2023). Sharia Financial Literacy: Research Trends and Directions for Future Inquiry. *JISEL Journal of Islamic Economic Laws VI*, 6(2).
- [67] Suwarsono, Bambang Setiadji, Musa Asy'arie, W, M, A. N. (2024). The Future Of The Civilization Of The Ummah Is Reviewed From The Sociology Of Education For The Sustainable Development Goals (Sdg ' S). *Journal of Lifestyle and SDGs Review*, 4, 1–19.

-
- [68] Suwoko, Waston, Bambang Setiaji, M, Huda Kurnia Maulana, E. B. G. (2024). Family Education To Improve The Quality Of Human Resources And Sustainable Development In Samarinda. *Revista de Gestão Social e Ambiental*, 18(6), 1–19.
- [69] Treu, J. (2023). Moving Beyond Silo Thinking: A Deductive Analysis of Financial Literacy, Financial Inclusion, FinTech, and the UN Sustainable Development Goals. *International Journal of Economics and Finance*, 16(2), 1. <https://doi.org/10.5539/ijef.v16n2p1>
- [70] Ulfah, Y. F. (2024). Enhancing Education Quality Through Internal Quality Assurance Strategies. *Profetika: Jurnal Studi Islam*, 25(1), 107–118.
- [71] Utami, A. N., Syarifuddin, F., Azaroh, S., & Humairoh, F. (2025). The Effectiveness of Flashcard Media as a Hijaiyah Script Learning Media at TPQ Shaqul Al Husna in Indonesia. *Solo Universal Journal of Islamic Education and Multiculturalism*, 3(1), 57–66.
- [72] Vergara, C. C., & Agudo, L. F. (2021). Fintech and sustainability: Do they affect each other? *Sustainability (Switzerland)*, 13(13), 7012. <https://doi.org/10.3390/su13137012>
- [73] Wahid, A., Erdina, D. P., & Mahmudulhassan, M. (2022). Study Of The Practice Of Reading Surah Al-Isra Verses 79-82 At Duha Time At Hidayatul Islamiyah Pesantren. *QiST: Journal of Quran and Tafseer Studies*, 1(3), 290–306. <https://doi.org/10.23917/qist.vii3.2766>
- [74] Waston, M, Andri Nirwana, & M, M. (2024). Parenting problems in the digital age and their solution development in the frame of value education. *Multidisciplinary Reviews*, 7(8), 21–91. <https://doi.org/https://doi.org/10.31893/multirev.2024163> Parenting
- [75] Waston, M, Soleh Amini, Roni Ismail, Sekar Ayu Aryani, A. N. (2024). Religiosity To Minimize Violence : A Study Of Solo Indonesian. *Revista de Gestao Social e Ambiental*, 18(6), 1–22.
- [76] Waston, W., Amini, S., & Arifin, M. (2024). A moral-based curriculum to improve civilization and human resource development in Bangladesh. *Multidisciplinary Reviews*.
- [77] Waston, Wiranto, E. B., Ali, M., Achmad, N., Ramdhani, D., Muthoifin, & AN, A. N. (2024). Islamophobia and Communism: Perpetual Prejudice in Contemporary Indonesia. *Revista de Gestão Social e Ambiental*, 18(2), e04875. <https://doi.org/10.24857/rgsa.v18n2-075>
- [78] Yafi, L. (2024). Transformation, Challenges, and Regulation of Halal Tourism in the 5.0 Era. *Demak Universal Journal of Islam and Sharia*, 2(2), 177–188. <https://journal.walidem institute.com/index.php/deujis/article/view/123%0Ahttps://journal.walidem institute.com/index.php/deujis/article/download/123/286>
- [79] Yusran, Q. Q., & Afiah, I. (2024). Optimizing the Potential of Zakat to Alleviate Poverty Problems and Improve Community Economy in Surakarta City. *Journal of Ecohumanism*, 6798, 121–132. <https://doi.org/https://doi.org/10.62754/joe.v3i3.3394>
- [80] Yusran, Q. Q., & Nirwana, A. (2024). The Practice of Changing the Status of Change of Waqf Property in the Islamic Social Economic View. *Journal of Ecohumanism*, 6798, 229–238. <https://doi.org/https://doi.org/10.62754/joe.v3i6.3996>
- [81] Zaimovic, A., Torlakovic, A., Arnaut-Berilo, A., Zaimovic, T., Dedovic, L., & Nuhic Meskovic, M. (2023). Mapping Financial Literacy: A Systematic Literature Review of Determinants and Recent Trends. *Sustainability (Switzerland)*, 15(12), 9358. <https://doi.org/10.3390/su15129358>