MAPPING OF DIGITAL FINANCIAL LITERACY RESEARCH: A BIBLIOMETRIC REVIEW

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ABSTRACT: This study aims to review digital financial literacy based on the previously-published articles. A literature study based on the Scopus database from 1984 to 2022 is conducted by employing the VOSviewer tool to analyze the collected data for the bibliometric analysis. The findings point toward the people's behavior on investment decisions.The questionnaire is the most widely used data collection method, and the conversations are evenly shared in developing and developed countries.The key themes are still divided into financial inclusion and general digital finance issues. Discussion and future research are provided.

Keyword*: Digital Financial Literacy; Systematic Analysis, Financial Technology; Bibliometric Analysis*

INTRODUCTION

Digitization, internationalization, and sustainability are businesses' three main growth paths. In particular, contemporary economics emphasizes the relevance of digital transformation as a critical driver of business growth (Aziz & Naima, 2021). Technological developments change people's lifestyles as seen in people's behavior, including how to buy goods and services, both of which can be done online to improve service, effectiveness, speed, and security, making it easy for customers (Selimović et al., 2021). Digital finance can promote excellent economic stability and increased financial intermediation for customers and the economy (Feng et al., 2022). Digital financial innovation can have a long-term positive effect on improving performance (Andreou & Anyfantaki, 2021). Organizations can adopt various policies to improve company performance and economic digitalization transformation by making updated developments in business models (Yu et al., 2017).

A growing body of literature is advancing the impact of financial inclusion and digital finance on marginalized populations. However, mainstream scholarship has not focused on understanding digital approaches' potential drivers and challenges to financial inclusion (Gerlach & Lutz, 2021). Future digital work implies a change of tools used in work activities and often changes the very nature of the operational activities and processes. The psychological needs of employees are essential in this context: the need for autonomy, competence, and relatedness, which affect the employees' motivation to accept the future workplace (Lo Prete, 2022). More specifically, if employees have expectations that the digital environment will enable them to accomplish better performance, greater satisfaction, and personal well-being more efficiently, they will be more motivated to support digital transformation (Kramer, 2016).

Knowledge of financial literacy is an essential aspect of life. This financial knowledge is also the basis for economic actors such as entrepreneurs, investors, students, and women entrepreneurs (Sconti, 2022). Financial literacy is also seen as a determinant of one's behavior in economic decisions. The importance of financial literacy, including its positive externalities such as better financial decision-making, is substantiated by a growing body of studies (Li et al., 2020). Individuals with a higher level of financial literacy are less vulnerable to being exploited or deceived, less prone to over-indebtedness, better at retirement planning, participate more often in financial markets, and have higher returns on savings accounts (Guthrie & Nicholls, 2015).

This study analyzes scientific articles to map digital financial literacy research internationally regarding themes, locations, research subjects, and methods. The development of public awareness and the need for understanding digital financial literacy is one of the factors in increasing digital financial literacy research. Financial literacy also plays a role in considering investors' decisions, entrepreneurs maintaining their business, students studying investment early, and homemakers managing their family finances. One of the crucial roles of financial literacy in entrepreneurial success is

opening up opportunities to get more investors into their business. In addition, to maximize profit potential, entrepreneurs and investors also need to learn and practice digital financial literacy. By utilizing digital features, entrepreneurs can manage the economic potential of their business, allocate budgets, and analyze the company's long-term potential.
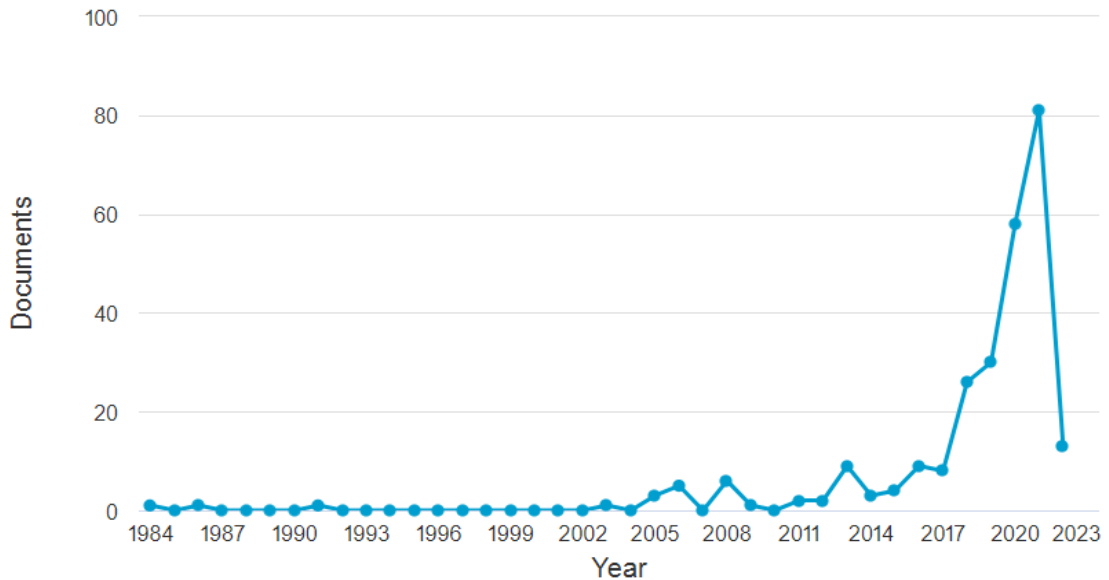
Figure 1. Number of Digital Financial Literacy Publications
Source: Authors' elaboration based on Scopus Database

This study provides insight into the distribution of digital financial literacy research in several countries, years, themes, methods, and the relationship between themes that have been developed. This study tries to fill the gap that research related to the literature review is still little done. The research examines using a questionnaire instrument to see the effect on literacy. Research on digital financial literacy has received significant attention from year to year. The increasing number of digital financial literacy research opens opportunities for the expansion of new themes that have never been done before. Then, research methods it is still dominated by surveys. The survey method was chosen because it can accommodate the researcher's objectives and is per the themes raised by the latest research. As for the experiment, there is still very little research on digital financial literacy.Based on the data that the researchers collected, from 1984 to 2022, there was an increase in research on digital financial literacy, with various themes. It can be seen;that in 1984, there were only two digital financial literacy studies; until 2004, there was no increase. But, in 2018, digital financial literacy research began to rise and peak in 2020, back down in 2021 (it is assumed that there are still many studies in 2021 and 2022 that have not been included because, in 2021, scientific articles are only collected until January 2022 (see figure 1). This fact prompts potential academic avenues, as in this study.

THEORETICAL REVIEW

Digital transformation and sustainability are becoming increasingly relevant challenges for businesses and society (Guthrie & Nicholls, 2015). Digital technology is changing the market environment, opening up new challenges and opportunities for these companies (Baniya et al., 2021). Some of the potential impacts of digitalization for businesses and society include increased productivity, increased product quality and process efficiency, better decision-making processes, superior flexibility, reduced time to market, business model innovation, and new roles for companies—consumers and, last but not least, environmental sustainability (Luo et al., 2021).

Technological developments change people's lifestyles as seen by changes in people's behavior, including how to buy goods and services, both of which can be done online to improve service, effectiveness, speed, and in terms of security to make it easy for customers (Yue et al., 2022). This development of businesses provides information and supports business-related transactions.Digital finance can promote excellent economic stability and increased financial intermediation for customers and the economy.Digital financial innovations can have a long-term positive effect on improving performance (Kass-Hanna et al., 2021). Businesses can adopt various policies to improve corporate performance and transform the digitalization of finance by making updated developments in business models. From a practitioner's point of view, digital finance is a financial service delivered via cell phones, personal computers, the internet, or cards linked to the government (Chlouba et al., 2011). Another benefit of digital finance is greater control over personal finances and fast financial decision-making, as well as the ability to make and receive payments in seconds to achieve business efficiency andimpact performance (Supardianto et al., 2019).

The reason for focusing on understanding individual digital finance lies in the awareness of digital financial transformation as a dynamic force behind many socioeconomic changes and a critical driver for growth, productivity, competitiveness, and innovation for enterprises in today's economic scenario (Durán et al., 2021). While the study of individual-level characteristics, capabilities, and human capital has received attention in the strategy literature. More work is needed to define how individuals' digital financial capabilities affect organizational performance and growth(Shen et al., 2021).

Digital markets are reshaping the global economic environment, radically changing how companies operate (Mitrofanova et al., 2021). Adopting new digital technologies creates new business opportunities and managerial and organizational advantages (Frączek & Urbanek, 2021). In this scenario, individual digital capabilities are driving the adoption of new technologies as central to rapid adaptation to the digital revolution. In the business environment, an individual's understanding of digital finance is more decisive than in large companies because, in small businesses, a more significant proportion of workers than in large companies are involved in implementing business performance (Litterscheidt & Streich, 2020).

Individual abilities can be divided into information, communication, problem-solving, and software categories. Information capability means identifying, locating, retrieving, storing, organizing, and analyzing digital information. It assessesrelevance and purpose, communication skills concerning communication in a digital environment, sharing resources through online tools, connecting with others, collaborating through digital means, and creating and editing new content (Ozili, 2018). These abilities relate to how an individual thinks, solves problems, communicates, learns, and goes beyond technical skills. In a technology-driven business environment, this capability can significantly impact product development and innovation (Suwana & Lily, 2017).

METHODOLOGY

We extend and develop the results obtained by considering all streams related to digital financial literacy without any time or region restrictions. Secondly, our study will use several tools based on the VOSviewer software for cluster analysis that diversifies the existing results in the literature.Thirdly, our proposed research combines additional and complementary information by considering the growth of publication sources, keyword analysis with derivative searches, and network collaboration. Fourthly, the results of our keyword analysis will formulate a discussion framework on digital financial literacy.

Bibliometric studies are known for their statistical analysis of books, papers, or other forms of publication (Hood and Wilson, 2001). However, more in-depth bibliometric studies support transparent quantitative and qualitative analyses of specific knowledge streams (Zupic and Cater, 2015). To carry out this research, we applied a meta-literature book, which includes both bibliometric (quantitative) and content (qualitative) approaches, and is widely used in the recent literature. The bibliometric process was first introduced to identify and understand networks based on citations.

The research team focused on keyword selection as the first step in our analysis. As suggested by Chen and Xiao (2016) and Massaro et al. (2016), keyword selection can be made using a macro (top-down) approach, starting from a broad search path to study and a general topic. Therefore, after considering the prior literature interest in this area and the lack of systematic studies with holistic literature analysis, our research string of papers includes Digital Financial Literacy as a reference in the Article titles, Abstracts, and Keywords. The research analysis is implemented using the Scopus database as multidisciplinary research that allows researchers to study various fields of information science according to the data coverage in every area of research, including the social sciences. In this case, we tested these results by obtaining 267 Scopus articles. Moreover, as suggested by Massaro et al. (2016) and previous applied studies (Secinaro et al., 2021), we did not withhold our analysis during the time frame of the study.

Following the abovementioned criteria, the final sample includes 267 documents (analysis as of February 1, 2022). They must be studied using a bibliometric approach that examines the titles and abstracts of each source. This scientific package can help researchers apply bibliometric analysis that supports accurate studies with citations and citations, country of the publisher, and primary author for this research flow. Finally, to get more transparent results, the researcher also used Excel software and VOSviewer software (Van Eck and Waltman, 2013). This last tool allows the researcher to study the relationship between keywords, supporting mapping the scientific topic being discussed by the researcher. This step is essential to provide a structured research agenda for future studies (Secinaro and Calandra, 2020).

RESULTS

This section will focus on the distribution of the articles and the influential aspect of Digital Financial Literacy. The distribution of reports is based on the yearly publication and the number of articles published by the journal sources. The noteworthypart of Digital Financial Literacy will present the most productive aspects by subject areas, authors, institutions, and countries.

Descriptive Analysis of The Literature

In this section, the results of the 267 selected articles answer two research questions referring to the research setting (theme, subject, and location of research implementation), research methodology, and clusters of research themes. The top sources in the field of Digital Financial Literacyby their Affiliations are presented in figure 2.Furthermore, research on digital financial literacy primarily spreads from several countries, as seen infigure 3, like the United States, Great Britain, Australia, Germany, China, Italy, and Canada. In contrast, the developing countries are India and Indonesia.These conversationlocationshighlightthe importance of financial literacy in various aspects/needs of society.
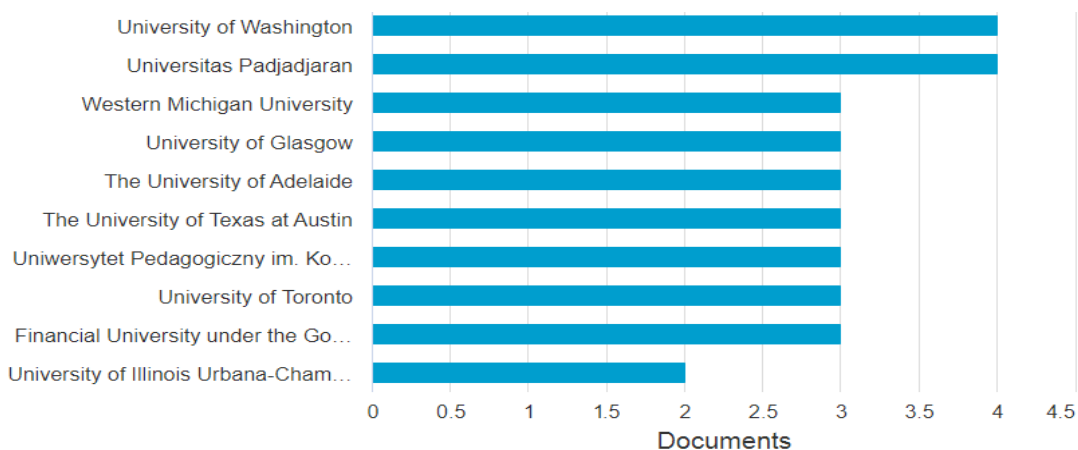
Figure 2. Number of articles by affiliations (top ten institutions)
Source: Authors' elaboration based on Scopus Database

Digital Finance also had significant development in Indonesia (Usmayanti, 2022). This system is a payment method for exchanging value in monetary terms via internet services. In developed countries, transactions using Digital Finance are widespread and can reflect the maturity of businesspeople, improving the MSME financial performance (Resmi et al., 2019).
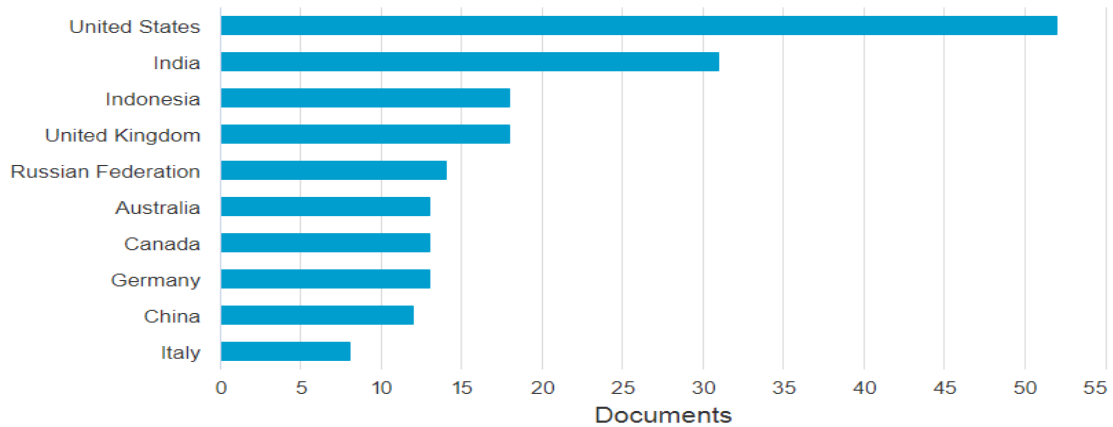
Figure 3. Number of articles by country/territory (top ten)

Source: Authors' elaboration based on Scopus Database

Table 1. It can be seen that the ACM International Conference Proceeding Series and Advances In Intelligent Systems And Computing, the Journal of Digital Finance and Technology Research maintain their leadership positions. However, the number of publications spread to other publishers. The author features the top 10 publishers featuring digital financial literacy topics.

Table 1. Number of articles by sources (top ten sources)

Name of the journal	Articles
ACM International Conference Proceeding Series	56
Advances In Intelligent Systems And Computing	35
Communications In Computer And Information Science	35
European Journal Of Finance	30
Finance Research Letters	28
International Journal Of Data And Network Science	17
International Journal Of Finance And Economics	17
International Journal Of Economic Research	17
British Journal Of Educational Technology	16
Asia And The Pacific Policy Studies	16

Source: Authors' elaboration based on Scopus Database

Table 2 shows the most prolific writers in digital financial literacy. This table is based solely on the number of publications without considering the author's impact. The impact of the authors will be discussed in the following sections. Initially, we wanted to present authors.

Table 2. Articles by author

Author	No.articles
Antoni, D.	12
Fauzi, F.	9
Gershon, A.S.	7
Green, K.E.	6
Hu, W.	6
Hueng, C.J.	6
Lewis, E.	5
Raghav Rao, H.	4
Shen, Y.	4
Suwarni, E.	2

Source: Authors' elaboration based on Scopus Database

Bibliometric Mapping and Visualization

Following the criteria mentioned above, the final sample includes 267 documents (as of February 1, 2022). They must be studied using a bibliometric approach that examines the titles and abstracts of each source. This scientific package can help researchers apply bibliometric analysis that supports accurate studies with citations and citations, country of the publisher, and principal author for this research flow. Finally, to get more precise results, the researcher also used Excel software and VOSviewer software. This last tool allows the researcher to study the relationship between keywords, supporting mapping the scientific topic being discussed by the researcher. This step is essential to provide a structured research agenda for future studies.

The cluster of Digital Financial Literacy research themes

Researchers used VOSviewer software to visualize potential clusters in each word key from the articles reviewed (see figure 4). First, the researcher identified two main groups based on the color difference (red and green) for each topic that appears on the diagram. The color difference describes the relationship/analysis topics connected. Then, the node identifies how often the subject is used (financial literacy).

Based on 267 articles studied, this study classifies into 2 clusters: greenIn the red cluster, the interrelated theme is financial inclusion (financial inclusion) with fintech, and digital financial literacy in green and income in red. Effective financial inclusion, in line with easy access from digital financial literacy and understanding and actively using products from fintech. On the other hand, when someone takes advantage of financial inclusion well, it will be easy to get additional income to support welfare (Suwana & Lily, 2017). Then secondly, the item of financial literacy is closely related to the ease of access to digital financial literacy on green clusters and the intensity of socialization from financial knowledge (knowledge of finance). The dissemination of financial expertise to every level of society with different backgrounds and socialization is needed, as well as the existence of products easy-to-use fintech for every

community (Blevins, 2018). Finally, Digital Financial Literacy is closely related to the increasing turnover of entrepreneurs (entrepreneurs). With online sales, entrepreneurs increasingly demand to adopt digital financial literacy(Koenig, 2020). For this reason, financial knowledge is needed per the conditions of the managed and marketed products to maximize the increase in income (Reilly, 2021).
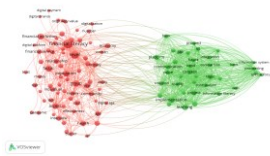
Figure 4. Network Visualization Digital Financial Literacy

Coauthorship Analysis of Authors

Based on VOS viewer software, coauthorship analysis is divided into research units, namely, authors and institutions, as in figure 4, while the institutions are described in Figure 5 as coauthorship affiliation.

Figure 4. Coauthorship Analysis Of Authors
Source: VOSviewer software

Figure 5. Coauthorship Analysis Of Institutions
Source: VOSviewer software

The result showed 195 authors. However, based on VOSviewer, most of them have not connected. Only 18 authors have the most extensive set of related items, as presented in figure 4. Figure 4 shows the relationship among the 18 authors.Figure 5 reveals the most cited documents in the field with citations more than 100 times. We see a clear correlation between journal rankings and citation time in the scientific community, with most of the top articles coming from the Scimago Journal Ranking by Q1 or Q2 journals. The top ten cited articles discuss the following:

1. Shen et al. (2021), digital financial inclusion enables people to expand access to financial services and advance economic progress in under-served market segments. Some researchers prove that financial inclusion and economic growth in a country have a significant covariant relationship and found that the lack of an inclusive financial system would lead to income inequality and slower economic growth.
2. Yu et al. (2017), the findings of this research can offer guidelines for policymakers and educators who evaluate a community's ICT adoption behavior to provide proper access to ICT and promote its visibility by incorporating ICT in educational activities.
3. Li et al. (2020)use panel data from the China Household Finance Survey in 2013, 2015, and 2017 and the digital inclusive finance index developed by Peking University to examine the impacts of digital finance on household consumption and further explore its mechanisms. This paper also chooses appropriate instrumental variables to solve the endogenous problem of digital finance. Results suggest that digital finance can significantly promote

household consumption, especially for households with fewer assets, lower-income, and less financial literacy in third and fourth-tier cities, compared to their counterparts.

4. Yue et al. (2022) this study focus on the impact of digital finance on households. While digital finance has brought financial inclusion, it has also increased families' risk of a debt trap. We provide evidence that supports this notion and explain the channel through which digital finance increases the likelihood of financial distress. Our results show that overall digital finance increases credit market participation. The broadened access to credit markets increases household consumption by changing the marginal propensity to consume. However, the more accessible access to credit markets also increases the risk of households falling into a debt trap.

5. Kass-Hanna et al. (2021) consistently show that financial and digital literacy are critical factors in building inclusiveness and economic resilience. Heterogeneities are identified across regions and for poor, rural, and female households. A robustness check is also included to address potential endogeneity. The results emphasize the need to redefine traditional financial literacy to include digital literacy, with important implications for countries considering both as a dual approach to improving households' long-run economic resilience.

6. Litterscheidt & Streich's(2020) findings imply that robo-advisors benefit from providing financial education to prospective investors and that financial education may indirectly affect investment outcomes by encouraging financial advice.

7. Ozili (2018), digital finance and financial inclusion have several benefits to financial services users, digital finance providers, governments, and the economy; notwithstanding, several issues persist that, if addressed, can make digital finance work better for individuals, businesses, and governments. The digital finance issues discussed in this article are relevant for the ongoing debate and country-level projects directed at greater financial inclusion via digital finance in developing and emerging economies.

8. Lo Prete (2022), the results from this descriptive analysis suggest that digital and financial literacy should be considered together when assessing the implication of digitalization for individual investors who can access digital financial products and markets without financial literacy.

9. Yin Yin et al. (2022) indicate that financial literacy significantly promotes students' savings intentions, practices, decision-making, accountability, values, and financial literacy. All results are analyzed based on gender and race. However, it does not significantly help overcome students' economic issues such as credit card debt and poor spending behavior.

10. Daud et al. (2022), the results of data analysis show that the digital finance had a positive and significant effect on the financial performance, the digital payment had a positive and significant impact on the financial performance, and the digital marketing had a positive and significant effect on the financial performance. The findings of this research can benefit MSME actors in developing their businesses to improve business performance by paying

attention to aspects of MSME digitization and the financial literacy of MSME entrepreneurs. Keep in mind that information technology's important role in business activities requires entrepreneurs to improve their digital literacy.

DISCUSSION

Based on the descriptive and bibliometric analysis of Islamic corporate governance, we recommend but are not limited to the following research areas.It discusses the current state of digital financial literacy. The digitization of financial products and services has become a key component in promoting high-quality digital tools to deliver effective financial education. The literature on financial literacy indicates that digital devices such as videos, games, cartoons, movies, and others could enhance financial literacy effectively.

States conducted research related to Digital Financeand that Digital Finance has a significant positive effect on the financial performance of MSMEs. If the use of Digital Finance has a significant or high value in the MSME sector, the sales revenue will increase, and the profits will continue to grow. Digital Finance had substantial development in Indonesia. This system is a payment method for exchanging value in monetary terms via internet services. In developed countries, transactions using Digital Finance are typical and can reflect the maturity of businesspeople, improving the MSME financial performance.

The following section proposes the conceptual framework, articulating the critical link between digital inclusion and social inclusion, which has informed our research approach (Litterscheidt & Streich, 2020); (Shen et al., 2021); (Chlouba et al., 2011). The conceptual framework emerged from the idea of digital inclusion and social inclusion to understand the socio-cultural and economic drivers of financial literacy. We argue that digital financial literacy is the intersection of financial literacy (financial access and literacy), digital literacy (accessibility, affordability, and ability), and social (social networks and social capital). The concept of digital inclusion was initially discussed in academic literature around 2003 (Gerlach & Lutz, 2021). It first appeared in the UK regarding its link to social inclusion regarding different levels of income,disability, age, race, culture, location, gender, and education. Recent studies on the digital divide argue that a used gap occurs even after providing digital technologies, such as computers, electronic devices, and the internet. In resources and appropriation theory, absolute inequalities in society result in unequal dissemination of resources, while imbalance of resources causes unequal access to technologies.

Consequently, such unequal dissemination of resources brings unequal participation in society, reinforcingabsolute inequalities. Inequalities depend on the nature of use and quality access. They drew on recent literature onthe digital inclusion framework, three interrelated components of digital inclusion; (i). accessibility, (ii). affordability and (iii). digital ability/skills. Access to digital devices is determined by affordability (such as the costs or the financial

capacity to adopt or use the (financial) technologies) which links digital ability (such as skills and motivations toward ICT adoption and digital activities).

This study defines financial inclusion, which can bring the poor into the formal economy and ensure financial connectivity with a range of services, such as utility bills and fees, through the sustainable provision of an affordable financial system. Finally, we argue that owning a digital device andthe required digital skills facilitates access to financial resources and financial literacy. Social inclusion through social networks and social capital may alsoinfluence peoples' motivation, attitude and skills in accessing digital financial services. Digital financial inclusion can be ensured when people require digital financial accessibility and financial literacy while maintaining social networks and social capital. In other words, digital financial inclusion can be achieved when potential gaps between unbanked and underbanked are minimized bycombining digital financial tools (such as mobile banking) with psychological tools (such as attitudes and financial literacy).

FURTHER STUDY

Research on digital financial literacy has received significant attention from year to year. The increasing number of digital financial literacy research opens opportunities for the expansion of new themes that have never been done before. Then, research methods it is still dominated by surveys. The survey method was chosen because it can accommodate the researcher's objectives and follows the themes raised by the latest research. As for the experiment, there is still very little research on digital financial literacy. Therefore, this can be used as a reference for further study to develop research on digital financial literacy with experimental methods. Then, for the study itself, be it design or developing countries have more or less the same interest in digital finance literacy themes. But, for further research, it can be maximized on a person's behavior and digital financial literacy. Lastly, financial literacy is closely related to financial inclusion and digital finance literacy so in-depth research gaps can be found on these central themes in further research.

Bibliometric analysis techniques are applied from all publications in Scopus relative to digital financial literacy. Itquantitatively describes scientific communication and makes research structures, central themes, and correlations. This effort supports the development of a careful assessment of the various scientific aspects of digital finance by the theoretical and practical contributions to knowledge. Increasing digital financial literacy will affect the income of entrepreneurs. The online sale and purchase of cross-border cities, provinces, and countries require entrepreneurs to adopt digital financial literacy. Thus, financial knowledge is needed to maximize the potential increase in income. Adequate financial literacy will be in line with easy access from digital financial literacy and understanding and actively using products from fintech.

REFERENCES

Andreou, P. C., & Anyfantaki, S. (2021). Financial literacy and its influence on internet banking behavior. *European Management Journal*, *39*(5), 658–674. https://doi.org/10.1016/j.emj.2020.12.001

Aziz, A., & Naima, U. (2021). Rethinking digital financial inclusion: Evidence from Bangladesh. *Technology in Society*, *64*(January), 101509. https://doi.org/10.1016/j.techsoc.2020.101509

Baniya, S., Doan, S., Kumari, A., Johnson, G. P., & Schwarz, V. M. (2021). Coalitional literacies of digital safety and solidarity: A white paper on nextGEN international listserv. *Computers and Composition*, *62*, 102681. https://doi.org/10.1016/j.compcom.2021.102681

Blevins, B. (2018). Teaching Digital Literacy Composing Concepts: Focusing on the Layers of Augmented Reality in an Era of Changing Technology. *Computers and Composition*, *50*, 21–38. https://doi.org/10.1016/j.compcom.2018.07.003

Chen, G & Xiao, L. (2016). Selecting Publication Keywords For Domain Analysis In Bibliometrics: A Comparison Of Three Methods. Journal Of Informetrics,Vol.10 No.1 212-223.

Chlouba, T., Šimková, M., & Němcová, Z. (2011). Application for education of financial literacy. *Procedia - Social and Behavioral Sciences*, *28*, 370–373. https://doi.org/10.1016/j.sbspro.2011.11.070

Daud, I., Nurjannah, D., Mohyi, A., Ambarwati, T., Cahyono, Y., Haryoko, A. D. E., Handoko, A. L., Putra, R. S., Wijoyo, H., Ari-Yanto, A., & Jihadi, M. (2022). The effect of digital marketing, digital finance and digital payment on finance performance of indonesian smes. *International Journal of Data and Network Science*, *6*(1), 37–44. https://doi.org/10.5267/J.IJDNS.2021.10.006

Durán, L., Almeida, A. M., & Figueiredo-Braga, M. (2021). Digital audiovisual contents for literacy in depression: A pilot study with university students. *Procedia Computer Science*, *181*(2020), 239–246. https://doi.org/10.1016/j.procs.2021.01.140

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

Frączek, B., & Urbanek, A. (2021). Financial inclusion as an important factor influencing digital payments in passenger transport: A case study of EU countries. *Research in Transportation Business and Management*, *41*(April 2020). https://doi.org/10.1016/j.rtbm.2021.100691

Gerlach, J. M., & Lutz, J. K. T. (2021). Digital financial advice solutions – Evidence on factors affecting the future usage intention and the moderating effect of experience. *Journal of Economics and Business*, *117*(May), 106009. https://doi.org/10.1016/j.jeconbus.2021.106009

Guthrie, C. P., & Nicholls, C. M. (2015). The Personal Budget Project: A practical introduction to financial literacy. *Journal of Accounting Education*, *33*(2), 138–163. https://doi.org/10.1016/j.jaccedu.2015.04.002

Hood,W.W. Andwilson, C.S.(2001). The Literature Of Bibliometrics, Scientometrics and Informetrics. Scientometrics. Vol.52 No.2 291.

Kass-Hanna, J., Lyons, A. C., & Liu, F. (2021). Building financial resilience through financial and digital literacy in South Asia and Sub-Saharan Africa. *Emerging Markets Review*, *May*, 100846. https://doi.org/10.1016/j.ememar.2021.100846

Koenig, A. (2020). The Algorithms Know Me and I Know Them: Using Student Journals to Uncover Algorithmic Literacy Awareness. *Computers and Composition*, *58*, 102611. https://doi.org/10.1016/j.compcom.2020.102611

Kramer, M. M. (2016). Financial literacy, confidence and financial advice seeking. *Journal of Economic Behavior and Organization*, *131*(March 2013), 198–217. https://doi.org/10.1016/j.jebo.2016.08.016

Li, J., Wu, Y., & Xiao, J. J. (2020). The impact of digital finance on household consumption: Evidence from China. *Economic Modelling*, *86*(July 2019), 317–326. https://doi.org/10.1016/j.econmod.2019.09.027

Litterscheidt, R., & Streich, D. J. (2020). Financial education and digital asset management: What's in the black box? *Journal of Behavioral and Experimental Economics* , *87*(June), 101573. https://doi.org/10.1016/j.socec.2020.101573

Lo Prete, A. (2022). Digital and financial literacy as determinants of digital payments and personal finance. *Economics Letters*, *213*, 110378. https://doi.org/10.1016/j.econlet.2022.110378

Luo, Y., Peng, Y., & Zeng, L. (2021). Digital financial capability and entrepreneurial performance. *International Review of Economics and Finance*, *76*(May), 55–74. https://doi.org/10.1016/j.iref.2021.05.010

Massaro, M., Dumay, J & Guthrie, J. (2016). On The Shoulders Of Giants: Undertaking A Structured Literature Review in Accounting. Accounting, Auditing and Accountability Journal. Vol.29 No.5

Mitrofanova, Y. S., Glukhova, L. V., Burenina, V. I., Evstafeva, O. A., & Popova, T. N. (2021). Smart production: Features of assessing the level of personnel digital readiness. *Procedia Computer Science*, *192*, 2962–2970. https://doi.org/10.1016/j.procs.2021.09.068

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

Reilly, C. A. (2021). Reading risk: Preparing students to develop critical digital literacies and advocate for privacy in digital spaces. *Computers and Composition*, *61*, 102652. https://doi.org/10.1016/j.compcom.2021.102652

Resmi, S., Pahlevi, R. W., & Sayekti, F. (2019). The effect of financial and taxation literacy on sustainable competitive advantage through business growth: A study of creative msmes in special region of Yogyakarta, Indonesia. *International Journal of Entrepreneurship*, *23*(4), 1–9.

Sconti, A. (2022). Digital vs. in-person financial education: What works best for Generation Z? *Journal of Economic Behavior and Organization*, *194*, 300–318. https://doi.org/10.1016/j.jebo.2021.12.001

Secinaro ,S., Calandra, D., Petricean, D & Chmet,F. (2021). Social Finance and Banking Research as a Driver For Sustainable Development: A Bibliometric

Analysis. Sustainability. Vol. 13 No. 1, P. 330, Doi: 10.3390/ Su13010330

Secinaro, S & Calandra, D. (2020). Halal Food: Structured Literature Review And Research Agenda. British Food Journal,Vol.123 No.1 225-243,Doi:10.1108/BFJ-03-2020-0234

Selimović, J., Pilav-Velić, A., & Krndžija, L. (2021). Digital workplace transformation in the financial service sector: Investigating the relationship between employees' expectations and intentions. *Technology in Society*, *66*(February). https://doi.org/10.1016/j.techsoc.2021.101640

Shen, Y., Hu, W., & Hueng, C. J. (2021). Digital Financial Inclusion and Economic Growth: A Cross-country Study. *Procedia Computer Science*, *187*, 218–223. https://doi.org/10.1016/j.procs.2021.04.054

Supardianto, Ferdiana, R., & Sulistyo, S. (2019). The role of information technology usage on startup financial management and taxation. *Procedia Computer Science*, *161*, 1308–1315. https://doi.org/10.1016/j.procs.2019.11.246

Suwana, F., & Lily. (2017). Empowering Indonesian women through building digital media literacy. *Kasetsart Journal of Social Sciences*, *38*(3), 212–217. https://doi.org/10.1016/j.kjss.2016.10.004

Usmayanti, V. (2022). Analisis Sistematis Penelitian Literasi Keuangan. *Jurnal MANAGE*, *1*(1), 19–28. https://ejournal.unama.ac.id/index.php/jumanage/article/view/28%0A https://ejournal.unama.ac.id/index.php/jumanage/article/download/28 /17

Van Eck, N.J & Waltman L.(2013). Vosviewer Manual. Univeristeit Leiden. Leiden. Vol.1. 1-53.

Yin Yin, K., Yusof, R., & Abe, Y. (2022). Integrating financial literacy into economics courses through digital tools: the Finlite app. *Journal of International Education in Business*. https://doi.org/10.1108/JIEB-06-2021-0068

Yu, T. K., Lin, M. L., & Liao, Y. K. (2017). Understanding factors influencing information communication technology adoption behavior: The moderators of information literacy and digital skills. *Computers in Human Behavior*, *71*, 196–208. https://doi.org/10.1016/j.chb.2017.02.005

Yue, P., Korkmaz, A. G., Yin, Z., & Zhou, H. (2022). The rise of digital finance: Financial inclusion or debt trap? *Finance Research Letters*, *December*, 102604. https://doi.org/10.1016/j.frl.2021.102604

Zupic, I & Cater, T. (2015). Bibliometric Methods in Management and Organization. Organizational Research MethodsVol.18No.3 429-472,Doi:10.1177/1094428114562629