



Paper 27

Financial Literacy, Financial Inclusion, and Digital Literacy:
A Survival Kit During the COVID-19 Economic Turbulence

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Abstract - The economic turmoil caused by COVID-19 pandemic has driven regulators and financial services to move towards financial technology to offer better, more efficient financial transactions that also comply with the government's health policies. These escalations are interrelated between the innovation itself and the users, categorized into three main aspects: financial literacy, financial inclusion, and digital literacy. Although these three indexes have been showing a confident rise per fourth quarter of 2021, this condition should not be treated as an absolute win against the pandemic turbulence and must be cautiously reviewed to prevent further downfall in personal finance. Therefore, this research applied the systematic review with a qualitative approach to compare evidence of financial literacy, financial inclusion, and digital literacy in Indonesia during the COVID-19 pandemic. It was found that financial inclusion is way higher than both financial and digital literacy index, with uneven distribution of financial inclusion across the country. However, the implementation of those variables has not been completely approached using sustainability viewpoint and therefore it is a joint responsibility for all stakeholders including individuals, financial services, and policymakers to elevate those towards inclusivity and sustainability to better promote eco-living and environmental long-term strategies.

Keywords - digital literacy, financial inclusion, financial literacy, personal finance

I. INTRODUCTION

The current global COVID-19 pandemic has struck almost all living sectors including the economy and financial, resulting in a global economic turmoil including Indonesia [1]. One of the tactics that is done to stabilize this crisis is by accelerating the digital economy which is contactless and complying to health protocols. Those has been developed rapidly that Indonesia ranked high in Southeast Asia [2]. These escalations in financial technology are interrelated between the innovation itself and the users, which can be categorized into three main aspects: financial literacy, financial inclusion, and digital literacy.

The improvements in the nation's financial technology can be measured using the financial inclusion index—the availability access on various financial institutions, products, and services in accordance with the needs and capability to increase welfare—which increased from 67.82% in 2016 to 76.19% in 2019 [3][4].

Another aspect that must be paid attention is the user readiness of those technologies, which can be weighed using the digital literacy index and financial literacy index. The United Nations Educational, Scientific and Cultural Organization (UNESCO) interpreted digital literacy as the ability to access, understand, and create information safely and through digital technologies [5], in which Indonesia came up with an overall medium index of 3.47 out of 5 [3]. Whereas the Financial Services Authority [4] defined financial literacy as the knowledge, skills, and confidence that affect the attitude and behavior to improve the quality of decision making and financial management to achieve welfare. By looking at the nation's understanding of financial instruments, it is concerning that the financial literacy index was only 38.09% in 2019. Although this number has been growing from the previous years of 29.66% in 2016, it is still far below than the financial inclusion index mentioned previously. These data indicate that most Indonesians do not have enough knowledge in maximizing those financial access to enhance their personal finance—the process of managing financial including income and savings—which is shown by the high discrepancy between financial literacy and financial inclusion. New concerning issues include illegal digital peer-to-peer lending services [6] and illegal investments [7], implying the unpreparedness of the population in welcoming the digital economy and thus may lead to another chaos in the micro economy and personal finance.

Based on previous studies [9][10][11], financial literacy is an essential weapon in strengthening financial resilience and facing pandemic uncertainties. As there is a notable difference between financial literacy, financial inclusion, and digital literacy index in Indonesia, further research is needed to analyze the gap in attempt to create a survival kit for individuals to withstand current fluctuation as well as to prepare for future uncertainties.

Financial literacy, financial inclusion and digital literacy are the ultimate factors in strengthening individuals during the COVID-19 pandemic unpredictability. These three financial indexes are also the key in rebuilding the current COVID-19 pandemic economic circumstance, in which per fourth quarter of 2021 has been showing a confident rise [12]. However, this condition should not be treated as an absolute win against the pandemic turbulence and must be cautiously reviewed to prevent further downfall. Strengthening the financial management abilities through increasing indexes might not be enough to create a more

resilient national financial character and thus a more holistic approach must be conducted. Thus, it is important to analyze whether the current financial literacy, financial inclusion and digital literacy in Indonesia have been conducted through a sustainable point-of-view to further participate in extending environment's sustainability for generations to come from financial decisions.

II. METHODOLOGY

The positivism approach is used as the main philosophy in conducting this research. The research variables mentioned previously, will then be arranged into a series of hypotheses, and then evaluated using systematic literature review. As the research and data collection will be focused and done at one time, specifically during the COVID-19 pandemic era, therefore it is considered as a cross-sectional study.

Literature review is one of the research methods to further firming theoretical development through the integration of various ideas and notions on previous studies [13][14]. Throughout the years, this method has been developed further in ways to increase thoroughness and are divided into three types of review: Systematic review, Semi-systematic review, and Integrative review [15]. Each approach is categorized based on its purposes, research questions, search strategy, and contributions. This research will be appropriate to use the systematic review as it has an objective to compare evidence of financial literacy, financial inclusion, and digital literacy in Indonesia during the COVID-19 pandemic. It has specific research questions of a) how the current financial literacy, financial inclusion, and digital literacy capabilities of Indonesians during COVID-19 pandemic; b) the relationship between those variables in supporting personal finance; and c) recommendations for the national's strategy in elevating those variables. It is also aiming to inform policy makers and government to overcome financial difficulties during the current pandemic. In creating a systematic literature review, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) is used as a guidance, which is an upgraded systematic review guidelines of QUOROM (Quality of Reporting of Meta-Analysis) published in 1999 [16].

III. RESULTS

Journal articles and conference proceedings will be used as the data for systematic reviews and will be taken from Scopus as the database covers internationally indexed, peer-reviewed journals across abundant number of publishers. The first step in PRISMA literature review is to identify sources that will be used as the data. The Table I on the left defines the keywords used in searching relevant papers from Scopus based on each independent

variable.

Based on the initial step, it resulted in 123 documents for

Table 1 - KEYWORDS USED IN THE SYSTEMATIC LITERATURE REVIEW

Variable	Database	Keyword
Financial literacy	Scopus	TITLE-ABS-KEY (<i>financial</i> AND <i>literacy</i> AND <i>indonesia</i>)
Financial inclusion	Scopus	TITLE-ABS-KEY (<i>financial</i> AND <i>inclusion</i> AND <i>indonesia</i>)
Digital literacy	Scopus	TITLE-ABS-KEY (<i>digital</i> AND <i>literacy</i> AND <i>indonesia</i>)

'financial literacy', 121 documents for 'financial inclusion', and 148 documents for 'digital literacy'. Further filtering is needed to pursue relevant documents according to the research scope and limitation which is shown in Table II.

Table 2 - SCREENING DOCUMENTS

Criteria	Inclusion Criteria
Open Access	All Open Access
Document Type	Article
Source Type	Journal, Conference Paper
Language	English, Indonesia
Period	2020 - 2022
Publication Stage	Final
Country/territory	Indonesia

It then resulted in 32 papers of financial literacy, 25 papers of financial inclusion, and 61 papers of digital literacy. Manual screening was then conducted by properly assessed each journal using several criteria including all papers must be conducted during COVID-19 pandemic and was conducted in Indonesia. Manual searches from ProQuest and Google Scholar were also added in attempt to further widen the collection of data. The same requirements were applied and papers in Google Scholar were checked to gather papers listed in SINTA (preferably S1 – S3). Governmental documents, reports, and national strategies in line with the research topic of financial literacy, financial inclusion, and digital literacy are included in this research to further align the current problem.

Therefore, there were a total of 35 studies of that are collected and further analyzed, consists of 14 papers from Scopus, 2 papers from ProQuest, 13 papers from Google Scholar, and 6 governmental reports.

IV. DISCUSSION

A. Financial Literacy

The economic changes during COVID-19 had tested the financial stability of individuals as well as financial performance of MSMEs. One of the essential tools in coping

this suddenness is through financial literacy, in which its knowledge and competence in managing finances will help increase problem solving related to financial difficulties. According to the Financial Services Authority [17], the financial literacy indexes in each province are listed below with the highest and lowest composite financial literacy indexes respectively in 7 major islands groups as follows:

1. Sumatera: Aceh (44.36%), Lampung (30.97%)
2. Kalimantan: East Kalimantan (39.63%), North Kalimantan (35.43%)
3. Java: DKI Jakarta (59.16%), West Java (37.43%)
4. Sulawesi: Central Sulawesi (39.63%), Gorontalo (31.23%)
5. Maluku Islands: North Maluku (37.53%), Maluku (36.48%)
6. Nusa Tenggara: West Nusa Tenggara (34.65%), East Nusa Tenggara (27.82%)
7. Papua: Papua (29.13%), West Papua (28.87%)

The financial indexes above showed that eastern provinces in Indonesia such as Nusa Tenggara, Maluku Islands, and Papua got lower results than the other western provinces. Several provinces which are at the extreme end of the islands such as Lampung and North Kalimantan also needed attention as they got lower results than the other mid provinces in the island. These latest result in financial literacy index were then tested to further assist individuals and business actors in getting through the COVID-19 challenges.

The study in Sidakarya Village, Bali [1] has proven the importance of financial literacy in reviving households' financial condition to achieve wellness through their knowledge of financial and skills to manage household finances which boosts their confidence of maintaining their financials through the hard times. The research also found that the higher index of financial literacy will help recover the financial wellbeing faster. However, it was still found that women have lower knowledge in finance than men [17][18], although the literacy gap had decreased in 2019 from 7.70% to 3.81%. The importance of balancing financial literacy for both men and women are important especially many families rely on women in managing households' financials and government's financial aid also requires housewives or woman in the household as the primary beneficiary. If we look at the fishing sector [19], the effect of pandemic did not just mainly affect fishermen but also women working in post-harvest fisheries, with financial literacy index of 20.75% in 2019. Therefore, in the scope of household, it is not only men's duty to increase their financial literacy but also women to further support households' financial performance and wellbeing.

One of the components tested in financial literacy by Lusardi is the ability to calculate interest rate and interest compounding, and that it was found to help contribute to increase individuals' interests in investing [20][21] as one of savings method. Investments are one of the ways to generate passive income, especially during the pandemic crisis which salaries and wages are affected and that many individuals got reduced amount or even got laid-off. While searching for another new job, individuals are able to spin their current money as investments to generate larger interest income than from conventional bank savings. This is where financial literacy taken its part, as a knowledge supply for individuals to invest their savings in the correct investment instruments to gain return. Without proper understandings in financials, individuals may lose their savings and gain loss instead of additional income because of their lack judgement for their investment decisions. Therefore, financial literacy has its importance in individuals' investments. On the other hand, financial knowledge also helps in understanding the access of capital, which also effects to the growing number of interests in starting a new business and thus participating in the rise of new micro and small enterprises [22].

The rapid advancement of financial technology [23] to further assist the financial needs for individuals has driven customers to leave the traditional finance and convert to a more efficient and convenient fintech service. Although financial literacy has taken participation in elevating financial technology adoption, the results have proven that other variables have a stronger effect such as financial attitude, innovativeness, and familiarity [24][25].

However, the increase in understanding financial instruments is still needed to be elevated especially for several services. The top five most frequently complained financial services based on each sector from 2013-2021 includes credit card and insurance [17], meaning that customers are not completely understand how the services work. These results indicate several problems that must be cleared. From the perspective of consumers, there may be insufficient knowledge in understanding how each service works and this shows the need to improve financial literacy about these instruments. From the perspective of financial services, there may be underperformances in offering the financial products, both from technical issues such as error systems and customer service issues such as miscommunications. These called for improvements for consumers to elevate financial literacy to better understand the usage of financial products, and for financial services to offer better services and to enlighten consumers about their financial products. It is also important to minimize technical errors and offer a more stable system for consumers to fulfil their financial necessities conveniently.

The Financial Services Authority have massively broadened the national financial knowledge through a program called "Sikapi Uangmu"—with literal meaning of 'manage your money' [26]. The program has maximized various medias to convey the knowledge for each target markets using the appropriate approach, such as illustrated story books for children, trendy catchphrases and updated social media content for young adults, and webinars and guidebook for the professionals and elderly. The classification of target audiences also includes newlyweds, MSMEs, migrant workers, and other specific occupation and financial necessities. The topics covered are also abundant from the general financial knowledge to a more advanced one, in addition of materials regarding consumer protection and dispute resolution.

By looking at the national's strategy to increase the financial literacy index, the emphasized skills are on how to understand all the finance materials that are tested as well as financial behavior and perspectives towards financial decision, mainly referred from OECD. However, discussions regarding financial decisions towards sustainability and environmental longevity are rarely found in the materials or booklets. As it is one of the global goals to convert the financial world into a more sustainable ecosystem [27], these sustainable viewpoints should be considered in elevating financial literacy index so that consumers are able to behave responsibly towards the environment through their financial decisions. Additional discourse to view financial decisions by also considering its future effect for the environment are needed with practical examples such as investing to not just merely profitable companies, but to an eco-friendly firm that implement sustainable business cycle and prioritize its stakeholders' wellness. By investing to environmentally responsible industries, individuals are able to gain returns as well as indirectly participating in the sustainable effort through their financial decision. Despite having two separate programs each dedicated to financial literacy and sustainable financial literacy, it would be better to create one interlinked program consist of the two topics for a better and time-effective integration. Therefore, each target audience will be occupied with financial knowledge using sustainability fundamentals and thus expected to behave with an ecological sustainable point-of-view for the better economic cycle.

B. Financial Inclusion

The inclusivity of financial access is also one of the important aspects in strengthening financial health for individuals and MSMEs. According to the Financial Services Authority [17], the inclusion index in each province varied as illustrated below with the highest and

lowest composite financial inclusion indexes respectively in 7 major islands groups as follows:

1. Sumatera: North Sumatera (93.98%), Lampung (61.94%)
2. Kalimantan: East Kalimantan (92.39%), North Kalimantan (65.09%)
3. Java: DKI Jakarta (97.76%), Central Java (65.71%)
4. Sulawesi: Central Sulawesi (84.51%), Gorontalo (60.89%)
5. Maluku Islands: North Maluku (75.85%), Maluku (75.62%)
6. Nusa Tenggara: West Nusa Tenggara (62.73%), East Nusa Tenggara (60.63%)
7. Papua: Papua (60.89%), West Papua (59.84%)

The notable differences between the financial access are the availability in central cities and farther provinces in this case the eastern part of Indonesia especially Maluku Islands and Papua. This condition was captured in 2019 and the current COVID-19 situation surely had a generous impact to offer more efficient financial services, increasing the overall financial inclusion index to 83.6% in 2021 [28].

The unexpected limitedness of financial services has made bank institutions and other financial services to come up with creative solutions to able to fulfil customer's financial necessity while still complying with government's pandemic regulations. Innovation in technology is the ultimate key in creating a more efficient financial ecosystem which adopted by most of the financial services. Although the financial technology has been started in 2019 [29], the digital transformation has been skyrocketing ever since the COVID-19 stroke though digital payments, digital banks, digital fundings, etc. This creates easier access for customers to digitally manage their financials as they could access all financial services by their mobile phone or other gadgets with internet connection. Financial transactions such as bank transfers, currency exchange, and payments could be done through smartphone with the help of bank mobile application and customers do not need to travel back and forth to the nearest bank branch. Customers can also easily open a new bank account with simpler requirements mainly ID card. Other popular service is the microfinancing that helps consumers' financials with lower middle income which do not have access to conventional banks, and peer-to-peer lending for consumers to have easier loan access without going through complicated process from conventional bank. This digital convert in financial services offer their financial products closer to consumers through their smartphones and simplify the traditional registration process which reduce hassle. It also helps financial

services in archiving transactions and tracking records, along with the overall efficiency of company's operational and management.

Although it is commonly believed that financial inclusion help increase resilience through financial shocks [19], it was found that the dependence on financial inclusion alone will not significantly improve financial resilience. The high index of financial inclusion does not assure of well financial shockproof as it only focuses on the financial access and does not consider the ability of customers to manage those access [30]. The rising numbers of fintech companies in Indonesia are followed with the increase in financial disputes since 2021, and that most of them came from fintech disputes [31]. Supported by the previous financial complaints along with the existing illegal financial services [6][7] in which the Financial Services Authority had closed 3,989 illegal lending services from 2018 up to April 2022 [32], the inconvenience and threat of financial inclusion are still lurking customers in accessing proper financial access. Lack of financial literacy would not be able to properly complement financial inclusion and maximize financial management as the key to strengthen financial resilience as well as financial wellbeing through COVID-19. Therefore, from the perspective of consumers, it is important to elevate financial literacy as a complementary knowledge to be able to utilize the existing financial access properly according to their financial needs as both variables are highly related [33]. The financial literacy in discussion is not only the knowledge in financial products and arithmetic calculations, but also the ability to detect suspicious financial practices to avoid financial loss.

The strategy to equally spread financial inclusion across the country is indeed fundamental to fulfil their needs in economic transactions through efficiency as well as letting them to participate in the nation's economic cycle. However, financial services will need to formulate not only preparations for expansion, but a new perspective using sustainable approach on their operational and management. The main principles that must be applied by financial services, especially in executing wider reach of digital payments are the United Nation's Principles for Responsible Digital Payments by Better Than Cash Alliance [34]. with nine fundamentals as follow:

1. Digital payments should treat its consumers with fairness;
2. All funds must be guaranteed its secureness and must be accessible anytime anywhere;
3. Eliminate biases and prioritize full services and potential for women to further strengthen female enfranchisement and welfare;
4. Uphold data security and privacy by building users' trusts through user control and accountable data stewardship;
5. Provide user-centric design with relevance and quality as an inclusivity for all types of adopters;
6. Elevate transparency especially on pricing and terminologies to preserve users' trusts;
7. Offer user choice through open infrastructure and interoperability;
8. Create clear, quick, and responsive recourse to provide a more systematic help and as a powerful insight to further improve financial processes, systems, and products; and
9. Achieve a responsible ecosystem through accountability and responsibility.

These principles act as a guide and challenge for financial services to uplift their capacity and performance especially in fulfilling wider demographic needs and satisfaction. Several points above have been conducted by financial services and can be seen through their customer services and products, such as fairness to all customers, accessibilities through various access such as from smartphone and computer, and quick recourse for immediate customer help. However, further improvements are still needed to cover wider demographic customers. For example, financial applications designs have been structured similarly to ease adopters in adopting the new access, however other demographic should be paid attention such as easy operability for older generation and disabled to offer inclusivity. Data privacy and security should also be strengthened to ensure customer's data and minimize data breach. Therefore, the implementation of financial inclusion must be considering sustainability, security, and inclusivity aspects of all stakeholders to promote better efficiency and building trust in systematic, financial ecosystem.

C. Digital Literacy

The rapid growth in technology and digitalization of finance ever since the COVID-19 had intensifies the participation rate of Indonesians whether for personal or entrepreneurial. The technology including fintech also has

great benefits both for individuals to better manage their financials and maintain their financial performance [24][35][36][37][38][39]. It was revealed by Indonesian Internet Services Provider Association on the second quartal of 2020 that the national internet usage penetration was 73.7%, which had increased 8.9% from 2018 [17]. This growth has proven that locals are able to learn technology quickly during COVID-19. The majority of internet users are connected to the internet more than 8 hours a day with an average monthly cost of IDR 75,000 – IDR 100,000. The national digital literacy index is 3.47 which is moderate, in which correlated with younger audiences, the ability to detect hoaxes, infrequent use of internet, and are not domiciled in Java. Several of these correlations helped in creating new facts to further elaborate the identity of internet users in Indonesia. The high number of internet contribution in Java (41.7%) did not reflect high digital literacy, in fact it was people outside Java which are more associated with the capability. The frequency of internet usage also contributes to digital literacy, in which high screentime does not secure high digital literacy. This condition supported Lee's findings [23] that the speed of innovations offered are way higher than the average learning period for people to properly adopt and utilize those technologies.

Retrieved from the 2020 Digital Literacy Survey conducted by Katadata Insight Center [40] in 34 provinces in Indonesia, the sub-indexes Safety and Technological Skills got the highest score of 3.66 among the others. The Safety sub-index from the Individual Safety pillar concluded that Indonesians were able to set view limitations on their posts, did not uploaded private data, nonactivated current geographical location, and able to report misconducts through the 'report abuse' option. Whereas from the Device Safety pillar, a moderate number of Indonesians were accustomed to creating passwords with combinations of numbers, alphabets, and punctuation marks. They also backed up and store their data in several medias, used software to minimize viruses, and were able to differentiate spam or malware emails. Meanwhile on the Technological, a moderate number of Indonesians were able to connect their devices to Wi-Fi, able to download files or applications from the internet, able to upload files to the internet, and able to install programs into their devices.

Unfortunately, as mentioned before, the fast adoption of people towards technology did not assure the capability to maximize the usage for a good purpose. Digital Information and Literacy got the least score of 3.17 among other sub-indexes. From the first pillar of Data Information and Literacy, there were still part of the population that could not access information and contents in the digital media according to their needs. Some also were not able to filter and store their data, as well as setting their data

search. From the second pillar which is the Critical Thinking, some of people were not habitual to find out the facts of new information they got from the internet, whether the news was fact or hoax by comparing with other reputable sources. Some of them were also still unsure on how to verify other people whom they met online and were not familiar in finding out the credibility of writers and sources.

It is resulted [41] that digital literacy is important for individuals in analyzing fintech's promotional and marketing through social media and the internet. With adequate data information and literacy, individuals are able to filter which financial technologies and apps that are legal and eligible based on their promotional. Unfortunately based on the previous data, many are not habitual in checking the information's validity, and thus falling into hoax and misinformation. This condition will also frame individuals into illegal fintech services as they are not able to differentiate which services that are legal and safe to be used. It is advised for individuals to check on the national's legal fintech list provided by the Financial Services Authority as it is regularly updated before using the related fintech to assure security and eligibility of the application.

In addition, the consideration of national's strategy in human resources empowerment and digitalization through the realization of smart manufacturing, smart cities, smart village, and smart tourism [42][43][44][45]. The readiness of digital technologies is vital to equip people to become the catalysator of the new transformations. With the support of digital literacy, it would be easier to revamp their ideas with digital perspectives to create a more efficient, sustainable ecosystem. Naturally, the implementation of digital literacy should also balance with equal internet infrastructure as there are still many underdeveloped areas in Indonesia [46]. Thus, the importance of elevating nationals' technological skills and literacy does not merely focus on the technical competencies but also how individuals are able to maximize the potential of technology itself for the greater cause.

The digital literacy elaborated earlier are related to the overall skills in utilizing technology, and the next discussion is regarding digital financial literacy which can be defined as the capabilities in understanding digital financial instruments of financial technology. With the insufficient guidance from government and international organizations, it has been compiled [47] have compiled the dimensions of digital financial literacy including:

- a. Self-protection from online financial frauds;
- b. Awareness of digital finance;
- c. Knowledge in digital financial services;

- d. Knowledge on how to do transactions through digital finance;
- e. Basic financial and digital knowledge and skills;
- f. Digital financial risk controls;
- g. Financial behaviors; and
- h. Financial decision making.

As mentioned before, the rise of financial technology has emerged during the COVID-19 pandemic and digital financial literacy is important in equipping the knowledge to maximize those fintech services. From the 2020 Indonesian Internet Service Provider Association Survey [17], 68.7% Indonesian internet users felt safe in participating in online transaction. Whereas another study [48] resulted in low understandings of financial technology between millennials in Indonesia, and that the most understandable product among the others is the digital payment. These numbers indicate the dimensions of awareness and knowledge in doing online transactions especially through digital payment, which can be seen in point B, C, and D. Whereas point A regarding safety from fintech frauds needs to be prioritized as digital literacy in fact check and identifying misinformation previously discussed is still low. These findings showed that digital financial literacy—in this case the digital literacy which focuses on the knowledge in digital finance—are essential complementary for financial inclusion that enables customers to maximize digital finance services for their financial necessities. The digital financial literacy dimensions mentioned previously should be fulfilled as means to provide security and inclusivity for all customers. The term 'digital financial literacy' itself are the combination between financial literacy and digital literacy, which covers the capabilities in managing digital finance instruments. However, the official definition of this term has not yet been structured by international organizations nor national government. National surveys from OECD's guidelines have not yet also considered these skills in digital finance into their financial literacy questionnaires to further measure the knowledge in financial technology. There is also a very limited amount of research that focuses on digital financial literacy. Therefore, there are a lot of rooms of improvement in deepening this term as it has a more focused target of utilizing financial technology than digital literacy itself which have a broader meaning as well as further research to see how this index reflected in individuals. As also mentioned in the Digital Finance Innovation Roadmap and Action Plan 2020-2024 [49], strategies in elevating digital financial literacy and infrastructure support are hoped to be conducted as scheduled or faster to reduce current digital financial risks.

D. Global Goals and Strategies

The urgency in stabilizing personal finance during COVID-19 has emerged and that this importance is aligned with previous global goals from United Nations through the Sustainable Development Goals (SDGs) which had been released pre-pandemic. This can be interpreted that the global strategies have been moving towards the right path, and that the current pandemic pushes this global implementation to be done more quickly to prevent further pandemic and, in this case, unknown pandemic and financial turmoil. The improvement in financial literacy, financial inclusion, and digital literacy especially in digital financial literacy are all in line with SDGs subpoints which is published as the 2030 Agenda for Sustainable Development [50].

Global discussions related to financial literacy, financial inclusion, and digital literacy for individuals are also brought up in the 2022 G20 Presidency of Indonesia, a multilateral forum consisting of countries with developed and rising economies. The 2022 annual international summit is being held in Indonesia as its presidency throughout the year and the climax of the series will be occurred in November 2022 in Bali with the spirit of 'Recover Together, Recover Stronger' to restructure and overcome the global COVID-19 pandemic. The discussions are focused on three main issues which are the global health architecture, digital transformation, and sustainable energy transition, which is branched into two workstreams of the Sherpa and Finance Track.

The Sherpa Track is a collection of 11 working groups of experts and relevant ministries working on specific non-finance subtopics including digital economy which is being analyzed in this research. The second issue of 'Digital Skills and Digital Literacy' covered in the Digital Economy Working Group (DEWG) confirms previous analysis and statements that digital literacy is indeed essential and have a central role in facilitating an inclusive, productive, and sustainable digital technology, as stated by the Ministry of Communication and Information Technology, Johnny G. Plate [51]. Further discussions were conducted in a hybrid form through the 2nd G20 DEWG Meeting on May 17-18, 2022, focusing on the first issue of Connectivity and Post-COVID-19 Recovery [52].

Another branch of the multilateral forum is the Finance Track, which focuses on economics and finance topics including fiscal, monetary, financial regulation and financial inclusion. There are a total of 6 priority issues in this stream [53], including the nourishment of payment systems and inclusive financial system. The Finance Track also classify their forums into six smaller groups based on related issues, such as Sustainable Finance Working Group and Global Partnership for Financial Inclusion (GPFI) that

are closely related with this research. The Sustainable Finance Working Group (SFWG) pursues deeper regarding sustainable finance as an approach to secure global growth and stability in a greener and more inclusive manner based on objectives of the 2030 Agenda and the Paris Agreement—a 2015 international treaty on climate change. The SFWG will be working on priority issues during the G20 2022 [54] to prepare finance transition.

Another working group in the Finance Track is the Global Partnership for Financial Inclusion (GPFI) which is a multilateral platform consisting of all G20 countries, interested non-G20 members, and relevant stakeholders to advance financial inclusion all over the world to increase sustainable and inclusive growth. The agenda during the G20 Presidency of Indonesia was initialized with three focused topics: digital financial inclusion, SME finance, and the OECD review of the G20 High-Level Principles on Financial Consumer Protection [55]. The three-day forum invited Indonesia Financial Services Authority and various international organizations such as the World Bank and Better Than Cash Alliance as well as industries to gather viewpoints and field experiences regarding the balance between financial technology and financial inclusion in mitigating future risks. The second meeting [56] highlighted the gender equality and inclusivity as women carried the whole economic growth and stability, and that their great contribution should be compensated with supporting facilities and embracing policies. Crucial strategies that are covered in this forum including digitalization education to improve finance capabilities.

The annual multilateral platform of G20 is an insightful cooperative way to combine various ideas, perspective, and share field experiences to create a symbiosis and collaborative strategy to withstand the global pandemic crisis. It was a global consensus to set sustainable approach as the fundamental in every strategic and policy decisions, to provide a better pandemic-free future. Financial literacy, financial inclusion, and digital literacy in fact have pivotal roles in elevating personal finance, as these topics are covered and fully discussed cross-countries through this event. Various dialogues are currently being conducted parallelly through smaller meetings and working groups. The results of all discussions will then be delivered collectively on the peak event which is the 17th G20 Heads of State and Government Summit in November 2022. Until then, financial and digital variables are hoped to be thoroughly explored among all policymakers and stakeholders to reach a brighter and more resilient future.

V. CONCLUSION

The financial inclusion in Indonesia has been increased significantly with an index of 83.6% in 2021 ever since the pandemic especially towards digital finance. However,

financial and digital knowledge to complement this access are still rather low with financial literacy index of 38.09% in 2019 and digital literacy index of 3.47 in 2020. These indexes indicate that the knowledge of individuals to properly utilize financial instruments are still lacking and that the financial services offered could not be maximized. On another note, digital literacy index mentioned covers the general skills in accessing technology and internet, and therefore did not focus on the knowledge in assessing digital financial products.

Financial literacy, financial inclusion, and digital literacy indeed play a pivotal role in creating better financial decisions and regaining financial performance from the perspective of individuals. Financial inclusion act as the supporting role in providing easy, secure, and inclusive financial access for every demographic in Indonesia. Digitalization is the go-to option for financial services to fulfil consumer's needs through financial technology and digital finance. This is where financial literacy and digital literacy—merged as digital financial literacy—come in handy, in which the collaboration of both knowledge enables one to fully maximize digital finance to fulfil their financial needs and help elevating financial performance. Therefore, the integration between these three aspects is essential as a financial weapon to combat further risks that affects individuals.

However, the implementation of those variables has not been completely approached using sustainability viewpoint. Although there are introductions to various sustainable practices for individuals to follow, an improvement in highlighting sustainable factor on financial and digital literacy is needed to promote eco-friendly living as well as to increase environmental awareness to consumers which will then elevate the demand on sustainable products and services. Thus, it will also affect business actors to provide more eco-friendly products and services, as well as using sustainable approach for their daily operation and management. Financial services will also be demanded to provide better financial access and quality to fulfil the increasing needs and will then improve the financial inclusion index. These integration between financial literacy, financial inclusion, and digital literacy with sustainability point-of-view will then impact the participation and development of personal finance towards sustainable environment and generation.

It is a joint work and responsibilities for all stakeholders including individuals, financial services, and policymakers to elevate financial literacy, financial inclusion, and digital literacy especially digital financial literacy towards inclusivity especially for women, youth, older generations, and remote residents. The sustainable approach in conducting financial and digital activities must also be implied explicitly to better promote eco-living and environmental long-term point-of-views. Several real

actions for financial services are financial trainings and hands-on through webinars and offline seminars that are customized for each target markets, for example, hands-on digital banks to improve households' financials for West Java housewives with Sundanese as primary language. This delivery method is advised to gain attention of Sundanese housewives as it uses its fluent language for better understandings as well as households' financials as its main topic which highly related to the target market. Another important aspect to be improved is the safety and security of these financial access through multiple security layers and multiple authentication login such as one-time password (OTP) to ensure consumer's trust and to eliminate digital finance risks and crime acts.

These issues are currently being discussed with a global scope through the G20 Presidency of Indonesia 2022. It is hoped that these multilateral meetings are able to collect various insights, ideas, experiences, and perspectives between regulators, industry players, consumers, and academicians and come up with unified strategies to overcome the current pandemic downfall and together achieving ideal financial resilience and prosperity.

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