The Village Fund Program and Indonesia’s 18th Sustainable Development Goal: A Bibliometric and Content Study

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ABSTRACT

The Village Fund (VF) is a programme initiated by the Indonesian government, aiming to fund activities that contribute toward achieving the Sustainable Development Goals (SDGs) in villages. Additionally, the Village Agenda—the 18th SDG—is a government initiative that employs local wisdom to implement the SDGs. This study aims to provide a detailed understanding of the VF and its implementation strategies to achieve the SDGs based on local wisdom. We began our work by compiling a literature review from the Scopus database, using a unique combination of a systematic literature review (SLR) and the PRISMA protocol. This process yielded 168 documents, published between 2014 and 2023, from the initial search and screening results. After further refining to ensure relevance, we were left with 151 articles that were analysed using the bibliometric method with VOSviewer, identifying nine clusters of research related to VF. The next step involved a content study of 115 documents, obtained from screening manuscripts using the keywords ‘VF’, ‘sustainability’, and ‘Indonesia’, to explore the characteristics of VF publications in the context of SDG implementation. To suggest strategies for how VF programmes can support SDGs in villages, we utilized a supply-side approach as well as a demand-side approach. Each approach has its advantages and disadvantages, depending on the economic conditions and socio-political environment. The results of this study will provide policymakers with insights into the critical factors influencing the effectiveness of VF distribution for achieving the SDGs.

1. INTRODUCTION

One hundred ninety-three countries submitted and ratified the SDGs Agenda on September 25, 2015, at the United Nations Headquarters in New York. The agenda contains 17 goals, divided into 169 interrelated targets, which influence each other, and are integrated [1]. The Indonesian government is also committed to realizing this agenda by 2030 [2]. Indonesia’s achievement of SDGs is ranked 82nd out of 163 countries and 5th in the Southeast Asia region in 2022. The government is increasing achievements by initiating the Village SDGs program [3]. The difference between SDGs and Village SDGs is the addition of one goal, becoming 18, dynamic village institutions and adaptive village culture, which intend to encourage sustainable development through solid village institutions. The goal of the 18th Village SDGs is to maintain local wisdom and involve all elements of the village in supporting the life of diversity in a dynamic village. SDGs This village uses several indicators of local wisdom, including mutual assistance and cooperation activities; deliberations for consensus involving the participation of religious leaders in village development activities; protection of villagers for women, children, the weak and orphans; preservation of village culture; as well as solving citizen problems based on a cultural approach. Local cultural heritage acts as a driving force for achieving sustainable development [4]. Indonesia develops Village SDGs by adapting local culture and social and environmental conditions to realize national SDGs and global SDGs [5]. Village SDGs contribute 74% to the SDG’s desires. Continuous assessment in rural areas is an important management tool to understand the real-time status of rural development and enable dynamic policy adjustments [6].

Development activities have implications for resource allocation and economic structure in rural areas. Village Funds (VF) are funds originating from the state revenue and expenditure budget intended for villages which are transferred through the district/city regional revenue and expenditure budget and are used to finance governance, development implementation, community development, and community empowerment [7]. The village is the lowest government structure in the Indonesian government system and is also a government entity that interacts directly with the people [8, 9]. VF is Indonesia’s extraordinary budget decentralization scheme [10]. VF aims to prevent national disintegration and reduce social and economic inequality. VF is expected to become a stimulant fund for village development [11]. VF must trigger the formation of productive economic programs at the village level, which aim to increase village income which in turn will create village independence in the long term.
[8]. Villagers can enjoy the results of economic independence through VF, which leads to a sustainable economy [12, 13]; to improve community welfare such as building supporting infrastructure, supporting environmental restoration and conservation and natural resource management [5]. VF plays a role in narrowing the development gap between cities and villages [14].

According to monitoring and evaluation data for March 2023, the Government of the Republic of Indonesia, through the Ministry of Villages, Development of Disadvantaged Regions and Transmigration, has distributed VF of 68 trillion rupiah to 74,960 villages in 33 provinces in Indonesia. The government disbursed quite a large amount of VF, averaging nearly 1 billion rupiah per village. For the budget to be absorbed effectively and efficiently, it requires effort from the village community. Consequently, the village community must empower all existing capabilities to achieve the target. However, the implementation still needs to be more optimal because there is no complete belief that the village can take care of itself and meet its own needs [15]. The use of VF is considered ineffective and full of problems due to the influence of the quality of human resources and the low level of education [16]. The VF reporting system is also still ineffective due to low financial literacy [11], complicated budgeting and reporting systems [17]; triggers the creation of loopholes for corruption [18].

Based on the statement [20], studies on achieving the SDGs through VF in Indonesia are minimal, indicating the need for researchers to focus more on achieving SDGs targets. For this reason, we explore the methodologies employed in previous studies to identify research gaps. We conducted a process of searching for articles that reviewed village funds by screening them on Scopus.com. The keywords used were: “village fund”, “sustainability”, and “sustainable”. Out of the 151 articles about VF that were downloaded, we mapped them based on the methods that have been applied in previous studies. Table 1 presents the search results for research methods used in recent studies from 2019 to 2023.

Table 1. Research methods used in the latest VF research

<table>
<thead>
<tr>
<th>Objective</th>
<th>Methods</th>
<th>Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>To determine whether VF is effectively used to finance conservation and reforestation activities.</td>
<td>Thirty-eight village heads and four administrative village heads (sub-districts) were interviewed in Southeast Sulawesi Province, Indonesia.</td>
<td>Watts et al. [5]</td>
</tr>
<tr>
<td>To investigate whether village development and empowerment programs aim to improve the village economy.</td>
<td>The mixed method and a sequential exploratory approach. The first stage uses qualitative methods and the results to develop quantitative analysis to answer research questions. Focus Group Discussions (FGDs) as the primary data source. Secondary data from various sources support them to assist analysis.</td>
<td>Iskandar &amp; Aritenang [19]</td>
</tr>
<tr>
<td>To investigate whether village activities funded by VF are in line with SDG targets.</td>
<td>Mixed methods. Qualitative analysis and data collection with interviews, documentation, and observation of nine informants from four selected villages.</td>
<td>Permatasari et al. [20]</td>
</tr>
<tr>
<td>To evaluate the lack of impact of increasing VF every year in Penukal Abab Lematang Ilir (PALI) District, South Sumatra Province.</td>
<td>The quantitative method using regression discontinuity design (RDD).</td>
<td>Hartojo et al. [14]</td>
</tr>
<tr>
<td>To examine the causal transfer effect of VF on village economic growth in underdeveloped villages in Indonesia.</td>
<td>The quantitative method with Smart-PLS is to process data from survey questionnaires to test the relationship between village funds and economic sustainability.</td>
<td>Ronaldo &amp; Suryanto [12]</td>
</tr>
<tr>
<td>To examine the role of green finance in SDGs through Village Funds in Indonesia.</td>
<td>The quantitative method with a verification approach.</td>
<td>Manurung et al. [21]</td>
</tr>
<tr>
<td>To prove whether there is a relationship between village fund allocation and the level of hunger in the community (SDGs 2).</td>
<td>Mixed methods using the Entropy-weighting TOPSIS-GRA method to assess rural human settlement environment sustainability objectively. TOPSIS is a practical and valuable technique for ranking and selecting several externally determined alternatives through distance measures.</td>
<td>Lin &amp; Hou [6]</td>
</tr>
<tr>
<td>To examine the positive correlation between rural economic development, the accuracy of village government decision-making, and the ecological environment of rural habitats in sustaining rural habitats.</td>
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</table>

To address these gaps, we designed research that begins with defining research questions and using appropriate methods to answer them [22, 23]. This study also aims to answer statements about limited research on achieving the SDGs through VF [12]. The present study attempts to answer the following research questions (RQs):

RQ1. What critical themes and hot issues regarding VF have been identified in the scientific literature? The main purpose of this research question is to identify popular themes and focus areas of researchers currently intense in this field [24].

RQ2. How has research on VF evolved? The production volume is an important indicator revealing the developmental trend of the chosen research area [25].

RQ3. Which countries have contributed the most to the literature related to VF? This information is beneficial for identifying which authors, institutions, and countries have researched this topic [26].

RQ4. What is the contribution of this research in terms of theoretical and practical implications and directions for future research? In-depth content analysis of the articles that form part of each cluster leads to identifying research gaps. It
creates opportunities for advancing this field of study by providing an agenda for future research [26].

RQ5. Do village funds create a culturally responsive village according to the 18th SDGs Village target by using content analysis?

We will answer RQ1 to RQ3 using the bibliometric analysis method, while RQ4 and RQ5 will use content studies on all articles related to the keywords: "sustainable", "sustainability", and "Indonesia" to answer the sixth question regarding the role of VF in the Village SDGs.

2. RESEARCH METHODS

This study followed the scientific mapping workflow guidelines: first compiling the data, then analyzing the visualization results, and finally interpreting them [22]. Data compilation includes selecting the appropriate database and refining the data to suit research needs. This step is followed by selecting software for information visualization to draw meaningful conclusions. The results of the interpretation are used to appropriately answer the research questions. In this study, we analyzed content in the categories of "sustainable", "sustainability", and "Indonesia" to answer the sixth question regarding the role of VF in the Village SDGs.

2.1 Study framework and data compilation

This study utilized both conventional literature reviews and a unique amalgamation of Systematic Literature Reviews (SLRs), bibliometric analyses, and content studies to explore the characteristics of VF-related publications. To ensure transparency and reduce selection bias in the literature data collection process, we followed the widely adopted Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) as the primary guideline for systematic literature review analysis. Systematic Reviews are reviews of clearly formulated questions that use systematic and explicit methods to identify, select, and critically assess relevant research, and to collect and analyze data from the studies included in the review. The term Meta-Analyses refers to the use of statistical techniques in a systematic review to integrate the results of the included studies. Adherence to PRISMA in the abstract was analyzed using descriptive statistics [28].

2.2 Data selection

We used Scopus as our data source. Scopus offers a comprehensive scope of scientific knowledge and is claimed to be the largest source of citations based on abstracts and keywords of scientific literature. Scopus is a database widely used by researchers, academics, and professionals across various disciplines. Publications on Scopus can provide increased visibility and accessibility, and they are often used as a measure of the success of individual scientists or authors [29].

We chose the Scopus database because it provides each author with a unique identifier, referred to as Scopus Author ID [30]. Scopus has been widely used in bibliometric studies [22, 31].

The data retrieval and content screening strategy comprised a comprehensive two-step process for retrieving bibliographic records from the database. The research framework was created to describe all the analysis processes and research content, as depicted in Figure 1.

![Figure 1. Research framework of the analysis process and research content](image-url)
We followed the steps of search, screening, and storage. The search terms were as follows: TITLE-ABS-KEY (“village fund”) OR (“village financial system”) OR (“rural funds”) OR (“village fund management”). Subsequently, we downloaded all records of literature from Scopus.com, including authors, titles, sources, abstracts, keywords, addresses, and cited references, which resulted in 168 pieces of data. Next, we applied a data cleaning filter, limiting the sample to articles published on the topic of the Village Fund. We restricted the literature to article, review, and early access document types. The criteria used in this study included only articles written in English. We considered both peer-reviewed and non-peer-reviewed articles such as book chapters, books, notes, reports, editorials, conference proceedings, and so on. Both published and in-press articles were included in this study [32]. We focused on the abstract content or documents containing studies on the Village Fund and aspects of Village SDGs. All researchers reviewed all extracted articles to ensure the relevance of each one. Our final sample consisted of 151 articles.

2.3 Software selection

After downloading all the record contents of literature from Scopus.com, we viewed and edited them using a text editor or Microsoft Excel, a spreadsheet program. Furthermore, we used the reliable software VOSviewer (Version 1.6.19), widely accepted for analyzing data and visualizing citation networks between various scientific publications [31]. This study employed the complete accounting method in VOSviewer to build a bibliometric network, grouping similar publications into clusters. Bibliometrics evaluates the outcomes of academic literature to track the development of a study over time. Based on a statistical examination of published articles and their citations, the number of citations and links between publications influence the status of scientific publications in a specific research field. Bibliometric studies employ statistical and mathematical techniques to summarize and detect hidden patterns of written communication and subject evolution, particularly useful for large data sets [33].

Full counting is a common method for bibliometric analysis. VOSviewer allows for the visualization of research topics and trends over time, aiding researchers in understanding field developments. It integrates with commonly used bibliometric databases, such as Web of Science and Scopus, to directly import data. As open-source software, VOSviewer can be downloaded and used free of charge, making it more accessible to researchers [22, 23].

3. RESULTS AND DISCUSSION

3.1 Descriptive analysis of Scopus literature

Figure 2 illustrates the distribution of bibliometric review articles related to the Village Fund (VF) across various research categories in Scopus. Eleven main categories have been discussed in at least five articles. 48% of VF-related articles published on Scopus are in the social sciences, economics, econometrics, finance, business, management, and accounting categories. Fewer studies address VF associated with other sub-fields, such as Engineering (30 articles), Environmental Science (29 articles), Computer Science (26 articles), Earth and Planetary Sciences (17 articles), Arts and Humanities (17 articles), Energy (8 articles), and Agricultural and Biological Sciences (8 articles). The Decision Sciences category has 6 articles.

However, the categories of articles related to Environment, Earth and Planetary Science, Agriculture, Renewable Energy, and other research categories included in sustainability studies still require further exploration. Out of the 151 articles downloaded from Scopus, only 5 examined the relationship between VF and Sustainable Development Goals (SDGs). These articles were written by Hartono et al. [14], Manurung et al. [21], Permapasari et al. [20], Sukar et al. [34], and Ronaldo and Suryanto [12]. The explanation above answers RQ 1 regarding the research theme, identifying a hot issue related to VF in the current scientific literature.

Figure 3 is the answer from RQ 2, namely how research on VF develops over time. According to the results, the number of publications regarding VF has grown from 2017 to 2020, while from 2021 to the present, it has decreased significantly. Since 2017, the number of publications about VF related to sustainability has increased. Researchers are starting to become aware of the global action plan that is in effect from 2016 to 2030. The goals of the SDGs are ending poverty, reducing socio-economic disparities and protecting natural resources and the environment. In line with this, governments in various countries have begun to pay increasing attention to funding to realize the SDGs [1, 6, 12, 20]. However, effective structural variations in growth patterns can be observed in 2020 and 2021 when a health crisis occurs due to the impact of the COVID-19 outbreak [35-37], where the government channels VF for recovery and economic growth which is experiencing a contraction [14, 38-40]. How isVF used as social safety net financing in the form of Direct Cash Assistance (BLT) for villagers affected by COVID-19 [37]? VF is used to support economic recovery and priority sectors to accelerate the development and empowerment of rural communities [20]. In 2022-2023 economic growth will experience a decline; this is what makes researchers investigate whether there is still a gap to write articles about VF.

Figure 4 is the answer from RQ 3, about which countries have contributed the most to the literature related to VF. There are 12 countries out of 25 countries of origin for documents related to VF keywords. Indonesia is the most productive country with a total of 115 documents. It turns out that not only articles from developing countries review VF, but there are also articles from developed countries such as the United States, Australia, United Kingdom, Japan, France and Germany. Indonesia is the country of origin of the author who has mostly commented on VF. VF is the government’s commitment to build Indonesia from the periphery, borders and villages. A total of 74,961 villages in 434 regencies/cities throughout Indonesia will receive VF in 2022 of 68 trillion rupiahs [41]. It is what creates opportunities for article writing by writers from Indonesia.

Numerous studies have explored how various governments worldwide also provide funding, similar to VF, to support the achievement of SDGs, as we present in Table 2.

Furthermore, this research will provide color to the body of knowledge regarding the relationship between VF distribution and the SDG’s local wisdom approach.
France
The Common Agricultural Policy (CAP) reform has stimulated many projects in France. The Green Deal models aim to find alternative agricultural systems and social structures to balance agricultural development, environment, climate, and intelligent rural areas. The program aims to contribute effectively to regional and territorial development by providing information, methods, and tools for decision-making and actions of local actors, especially within the framework of regional policy priorities [42].

Poland
Fundusz Solecki is an instrument that operates at the level called sołectwo, which is a subdivision of gmina that is partly used for the conservation of green areas in line with the government’s village program to achieve SDGs [43]; and to increase employment opportunities in the agricultural sector [44].

Australia
The Australian government provides regional funding through rural community development programs. The Murray-Darling Basin Regional Economic Diversification program, aims to boost the economy in most rural areas of Australia. The program supports various projects, including sustainable agriculture, tourism development, and creative industries [45]. The government provides capital to encourage establishment of new businesses or partnerships to build supporting infrastructure [46] and provide public services [47].

Tanzania
Village Community Banks (VICOBA) microcredits have had a significant impact on promoting sustainable micro and small-scale industrialization in Kilimanjaro, Tanzania. They have helped to support the production of raw materials, served as a source of funding for entrepreneurial industrial projects, and facilitated training in industrialization-related skills [48]. Annual cash payments to farmers motivate them [49]; increase access of people experiencing poverty to reach health facilities [50]; and are also used for the conservation of protected forests [51].
The topics and ability of all village community-

- The results show that nine clusters were taken from the Scopus database. Visual images of program. In Figure 5, the structure of the keywords in the study is used to group keywords from the retrieved data and present the links between these keywords. To integrate words with similar meanings, such as “village fund”, OR “village financial system”, OR “rural funds”, OR “village fund management”; we prepared a thesaurus file for use by the program. In Figure 5, the structure of the keywords in the study is presented. Based on predetermined conditions, these studies were taken from the Scopus database. Visual images of keywords present the thematic structure of the topics and classify the included studies. Based on these figures, this research is multidisciplinary, combining several themes. The image uses the co-occurrence-keyword technique to present keyword segments. Fifty-six keywords will be selected. The co-authorship network is constructed using “full counting” to calculate the strength of co-authorship links. Some of the 56 items are not connected. The largest set of connected items consists of 51 items grouped into nine clusters believed to have influenced and shaped the research topic. Bubbles with the same colour are interpreted as keywords belonging to the same cluster. The distance between the two bubbles shows the relevance and similarity between the two keywords. Lastly, link thickness shows the strength of the relationship between keywords.

VOSviewer adopts the similarity visualization (VOS) method to detect different clusters and graphically position each keyword on the map. The results show that nine clusters were detected in Table 3.

3.2 Bibliometric and content analysis

3.2.1 Network visualization of bibliometric literature

VOSViewer is used to group keywords from the retrieved data and present the links between these keywords. To integrate words with similar meanings, such as “village fund”, OR “village financial system”, OR “rural funds”, OR “village fund management”; we prepared a thesaurus file for use by the program. In Figure 5, the structure of the keywords in the study is presented. Based on predetermined conditions, these studies were taken from the Scopus database. Visual images of keywords present the thematic structure of the topics and classify the included studies. Based on these figures, this research is multidisciplinary, combining several themes. The image uses the co-occurrence-keyword technique to present keyword segments. Fifty-six keywords will be selected. The co-authorship network is constructed using “full counting” to calculate the strength of co-authorship links. Some of the 56 items are not connected. The largest set of connected items consists of 51 items grouped into nine clusters believed to have influenced and shaped the research topic. Bubbles with the same colour are interpreted as keywords belonging to the same cluster. The distance between the two bubbles shows the relevance and similarity between the two keywords. Lastly, link thickness shows the strength of the relationship between keywords.

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<table>
<thead>
<tr>
<th>Cluster Name</th>
<th>Keywords</th>
<th>Prominent Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1: Accountability (5), implementation (2), evaluation, Indonesia (20), internal control (4), organizational commitment (4), policy (3), village fund management (2)</td>
<td>[69, 70]</td>
<td></td>
</tr>
<tr>
<td>C2: Assistance (2), bumbes (2), community participation (4), COVID-19 (2), fund (2), social capital (3), welfare (2)</td>
<td>[34, 40, 71]</td>
<td></td>
</tr>
<tr>
<td>C3: Autonomy (2), effectiveness (2), impact evaluation (2), management, rural development (7), sustainable development (10), village government (3), village owned enterprise (3)</td>
<td>[10, 20]</td>
<td></td>
</tr>
<tr>
<td>C4: Microfinance institution, disasters (13), policy implementation, poverty (8), saving groups (2), Tanzania Community engagement (5) corruption (4), development, good governance, village</td>
<td>[21, 35]</td>
<td></td>
</tr>
<tr>
<td>C5: Fraud (4), good village governance (4), internal control system (4), performance (4), village fund fraud (13)</td>
<td>[72-74]</td>
<td></td>
</tr>
<tr>
<td>C6: Economic growth (8), fiscal decentralization (2), village funds (18), village (13)</td>
<td>[14]</td>
<td></td>
</tr>
<tr>
<td>C7: Monitoring system (4), sustainable development (6), village fund (23)</td>
<td>[68]</td>
<td></td>
</tr>
<tr>
<td>C8: Microfinance (5), public sector (2), Thailand (6)</td>
<td>[71]</td>
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</table>

In the results of the density visualization shown in Figure 6, the author divides the two areas of the keyword theme density diagram into two main concepts to identify research hotspots. The first concept is “village funds”, focusing on studies on managing, recording and reporting VF (keywords: Indonesia, governance, accountability, fraud, internal control, Bumdes/village-owned enterprise, village management, effectiveness). It is proven that several studies from Indonesia have conducted many VF studies related to management, recording and reporting. Human resource competence, morals and village governance influence the prevention of VF fraud and fraud [74, 75]. Good internal control systems and village governance affect the quality of financial reports and the occurrence of fraud [76, 77]. Accountability depends on individuals or organizations and is the responsibility of all parties related to organizational interests [78]. The government’s main focus is accountability for VF management through village-owned enterprises because it reflects good governance [79]. The effectiveness of VF fraud prevention depends on the village community’s courage to whistleblow for good village governance [80]. The allocation...
of VF focuses on the principles of accountability, transparency, participation and responsiveness for the realization of village governance [81, 82].

Figure 5. A network visualization of co-occurrence diagrams

The second concept is “village fund” focusing on studies related to SDGs (keywords: SDGs, economic growth, poverty, village development, pandemic COVID-19, assistance). VF allocation is a policy that aligns with the needs of the village community. Income inequality, poverty rate, and unemployment rate inequality affect economic growth [38, 83, 84]. VF and SDGs [12, 14, 20, 21]. Three dimensions influence changes in farmer household income as the main source. First, basic services and supporting infrastructure, particularly in education and health. Second, basic infrastructure to facilitate improving marketing and financing services, energy supply, electrification, communication, and information. Third, infrastructure that facilitates increased access and transit [85].

Figure 6. A density visualization of co-occurrence diagrams

The results of the discussion in Figures 2, 5, 6 can answer RQ.4 regarding the contribution of this research in terms of theoretical and practical implications and directions for future research. The bibliometric review shows that there still needs to be more VF research related to other sub-fields, such as Environmental Science, Earth and Planetary Sciences, Energy, Agricultural and Biological Sciences, decision sciences, or research categories included in sustainability studies, including the SDGs.

3.2.2 The VF program and the 18th SDG as local wisdom initiative from Indonesia

The rationale for the emergence of the 18th SDGs Desa Agenda is that the Indonesian nation has diversity in religion, culture, language, and customs [86]. Its existence must be preserved; we must respect this diversity as citizens. The village is the smallest unit in the government system and has a village head as its leader. The village has a role in managing the community’s customs, culture, local wisdom, and productive village institutions so that they can survive and even develop into one of the centers of social and cultural activities in the community [4]. Deliberation for consensus in decision-making is one of the local pearls of wisdom of the Indonesian people [87]. Village-Owned Enterprises are typical institutions that have emerged in villages in Indonesia [40].

The discussion of the contents of this study uses six priority principles of targeting the use of VF following the copy of the Minister of Villages, Development of Lagging Areas and Transmigration Regulation Number 8 of 2022 concerning Priority Use of Village Funds in 2023, namely for Humanity, Justice, diversity, natural balance and national interests, and by village objective conditions [7].

This study did not use VF in 2018; at that time, the priority for using VF was to focus on developing and providing infrastructure that provides services for various fields. This infrastructure development can provide services for rural communities and contribute to the achievement of SDGs. VF has increased the allocation of greater resources in infrastructure development, increased the local economy’s potential, increased the population’s welfare, and reduced disparities between regions [14].

Figure 7. A network visualization of co-occurrence diagrams using the keyword “Indonesia”

Figure 7 shows the results of A Network Visualization of a Co-Occurrence Diagram using the keyword “Indonesia”. What is presented in the picture will be used to answer RQ5. Do village funds create a culturally responsive village according to the 18th Village SDGs target? The author analyzes
the contents of articles related to Indonesia, sustainable and sustainabiity. Furthermore, the author reviews these articles and maps them according to the priority principle of using VF, which is related to implementing the goals of the 18th Village SDGs, namely “Dynamic Village Institutions and Adaptive Village Culture”.

Six priority principles for targeting the use of VF according to a copy of the Regulation of the Villages, Development of Lagging Areas and Transmigration Number 8 of 2022 concerning Priority Use of Village Funds for 2023.

**Humanity.** Prioritizing human rights, basic rights, dignity and human dignity so that discrimination does not occur in alleviating poverty in all its dimensions.

VF is allocated to poor and vulnerable groups [88, 89]. The higher the VF in districts and cities, the lower the number of poor people in the region [37]. VF is a budget decentralization scheme that supports local government programs in poverty alleviation [10, 38]. VF has implications for reducing the poverty rate even though it only has an effect of 12.7% [1]; it plays an important role in enabling poor households to escape poverty [90]. Rural economic resilience related to resilience, adaptation, and ability in poverty alleviation increases rural economic resilience due to government efforts to increase production factors, optimize economic structure and expand rural areas [91].

Using the VF in times of financial difficulties or emergencies [91]. VF can significantly reduce the prevalence of stunting in Indonesia [92].

**Justice.** Prioritizing the fulfillment of the rights and interests of all villagers without discrimination by establishing productive economic programs aimed at improving the economy and welfare of rural communities.

VF supports the existence of Village-Owned Enterprises (BUMDes) as business entities owned by village communities that will create long-term village independence and increase village assets [8]. The community manages it independently to improve the economy and welfare of the village community [2]. Social capital, local village assets, community participation and human resources determine the development of BUMDes in Indonesia [40, 93].

Distribution of VF impacts increasing asset changes; the highest is Physical assets, and the lowest is Financial/Financial assets. Physical assets are highly valued, namely the construction of public facilities such as concreting roads and village office buildings, which support the operational activities of village officials and communities who need them [3, 4]. Changes in Financial/Financial assets are still relatively low [5], so VF provides financial access to capital for farmers [6].

**Social Assets:** in a harmonious society, women’s empowerment communities are formed to strengthen social bonds and be a place for self-potential development in various skills [7, 8]. Human resource assets: increasing capacity to add knowledge and skills through various training [9]. VF has implications for literacy rates, with an effect of 70.6% [10]. Borrowing Joseph A. Schumpeter’s term, an entrepreneur is a person who is willing and able to develop new ideas or inventions into successful innovations while creating new products and business models that contribute to industrial and economic growth [11]. Natural Assets: this less significant increase in natural assets is natural, but the use of available land still needs more attention.

**Diversity.** (“Kebhinekaan” in Indonesia concept). The recognition and respect for cultural diversity and local wisdom as a form of social piety based on universal human values.

There are mutual help activities and cooperation in every action. Indonesian society has a culture of cooperation that is closely intertwined [21]. Gotong royong (which means ‘helping each other’ in English) is a form of collectivism. Together they will provide positive benefits to their lives. The concept that underlies social capital emphasized by philosophers is the relationship between the lives of a pluralistic society. The formation of groups or organizations to complete shared responsibility is a concrete manifestation of the implementation of cooperation as social capital [12]. VF’s support is adequate for community development through social capital and social welfare toward the SDGs [34, 94]. Preserved culture, such as customary institutions, functions as a solution to social problems through a cultural approach. Local culture and community characteristics play a role in implementing a VF management system to promote accountability, transparency and participation [13].

**Natural balance.** The prioritizing sustainable care of the earth for the continuation of human life. VF is essential in achieving SDGs regarding environmental sustainability and green area conservation [14]. VF is a fiscal decentralization in Indonesia that gives provincial and district governments the greater authority to solve ecological problems, including deforestation and forest degradation. Communities still prefer VF for activities that provide direct economic benefits to individual households rather than green activities such as agroforestry or planting timber trees [5]. Local wisdom of indigenous peoples plays an important role in nature conservation, protecting biodiversity and the ecosystem. However, at the same time, indigenous peoples face major threats through modernization and globalization [15, 95].

**National interest.** The development priority, which requires planning policy at the national level and the provincial and district/city levels. The SDGs at the national level are in line with the 2015-2019 National Medium-Term Development Plan (RPJMN) in the form of measurable programs, activities and indicators, as well as indications of support for realizing people’s welfare.

The process of empowering the community has not gone well; there are still development projects from VF that are implemented not by established regulations and priorities, and monitoring and evaluation have yet to run optimally. Thus, direction and assistance are still needed from the District Inspectorate, District Government, Village Government, Community Leaders and Religious Leaders [8, 9, 96].

The organizational structure of the village administration (SOTK) follows the applicable laws and regulations, namely the explanation of point 5 [86, 97], there are three village institutions, namely: Village Government Institutions consisting of the Government Village and Village Consultative Body; Village Community Institutions consist of RT, RW, PKK, Karang Taruna, Posyandu, and Community Empowerment Institutions (LPM); and Village Customary Institutions are organizational instruments that grow and develop together with the history of a customary law community to regulate, manage and resolve various problems of village community life related to customs.

Competence of VF managers, commitment of village officials/PPKD, and community participation can minimize fraud by improving the internal control system through implementing SOPs, good management, developing the ‘village partner’ application, and not justifying any form of fraud [73, 98]. Fraud in managing village funds is generally
caused by the dysfunctional role of village assistants in managing village funds [74, 99-101]. Accountability for managing village funds has become a demand for the village government [78, 102]. Management and utilization of Village Fund Allocation (ADD) is used to finance Village Government programs in carrying out government activities and community empowerment. The management and utilization of Village Fund Allocations focus on the principles of accountability, transparency, participation and responsiveness so that good governance will be realized at the village government level [82].

RPJMDes, RKPDes, and APBDes documents are available for each region. These documents are used to promote rural development and other activities. VF allocations must be adjusted to the Village Development Activity Plan (RKPDes/Village Development Activity Plan) program, a short-term village activity plan. The Mid-term Development Plan Village (RPJMDes/Rencana Pembangunan Jangka Menengah Desa) is a Village mid-term development plan that is conducted after each new village head is elected (every five years) and is usually issued in their first year of office [5].

By the objective conditions of the Village, it is an actual situation based on factual data and information, without being influenced by personal opinions or views and regardless of emotional perception or imagination. Villages can plan and manage their needs based on local objective conditions [104]. Based on the Village’s objective conditions, many villages with geographical conditions, natural resources, and human resources still need funds for infrastructure development. This is what makes the implementation of VF not optimal because its orientation focuses on infrastructure development [104, 105], so it does not provide a multiplier effect for improving the village economy [89]. Villages must disclose achievements related to what infrastructure has been built, roads, and buildings, as well as what training has been conducted for the community [81].

3.2.3 VF program strategy to support SDGs in Indonesia

Using the Supply Side and Demand Side approaches, we will explain the sub-discussion of the VF follow-up program strategy in support of the SDGs. In the context of VF, the concept of the supply side can refer to efforts to increase the resources or financing available to villages through various policies or programs that encourage economic growth and investment in the region. It can involve providing incentives or support for small and medium financial enterprises in villages [96], including support for the development of cooperatives [35], small industry and the agricultural sector [21]. Increasing the availability of funds from outside the village can also be part of the strategic supply side of village funds. These efforts may include programs to promote economic potential and investment in villages or collaboration with development organisations and financial institutions to support investment in villages [5]. On the other hand, the resources available for VF are limited, so appropriate policies and management are needed to ensure that VF is used effectively and efficiently [20]. The village government needs to develop a plan for using funds that is comprehensive and transparent and ensures that these funds are used for projects that are of good quality and benefit the village community [81]. The Indonesian government implemented a strategic policy by allocating VF to advance rural areas. The distinctive feature of this strategy lies in community participation in setting priorities for the use of funds. Therefore, this program is implemented based on the needs of the community. Rural areas generally have lower productivity than urban areas, so they need assistance to achieve inclusive growth [38].

Meanwhile, the Demand Side approach focuses on meeting the needs of rural communities by providing appropriate support to improve community welfare [16, 17]. This approach emphasises using VF to meet community needs and ensure community participation in decision-making processes [35]. Village communities must be involved in preparing village development plans and village fund budgeting processes so that they can choose programs that suit their needs. In addition, the demand-side approach also involves the development of development programs that are more oriented to the needs of the community to reach access to public services [14], such as health and education services [21, 105]. The use of village funds received is still prioritised for road and drainage infrastructure [3, 18, 19]. This program has shown changes in revitalising public infrastructure in rural areas since 2015 but has not shown significant economic performance [10]. Using a demand-side approach, VF can be more targeted and significantly benefit village communities. However, the village government must also ensure that participatory decision-making processes work well and that resources are used effectively and efficiently. VF is not only for infrastructure development but also for empowering economic communities, namely training in agricultural skills, training and fisheries according to village potential so that it can support sustainable development in rural areas [20].

The two approaches have different advantages and disadvantages, depending on economic conditions and the socio-political environment. For example, a Supply Side approach may be practical in conditions with much potential for economic growth but less effective in conditions where consumer demand is low or skills and labour need to be improved. A Demand-Side Approach may be more effective in low consumption and investment conditions but less effective at addressing underlying structural problems, such as employment problems or reduced long-term investment in the business sector. The value of VF distributed is relatively large for each village in Indonesia. The priority of using VF for village development programs and activities has different impacts. In essence, not all villages have the same level of development, so village resource management cannot be uniform [20].

4. CONCLUSION

The study results have identified nine research clusters that can be used as critical areas for deepening and expanding future VF research. The distribution of VF has mainly been proven to have contributed to the 18th Village SDGs, especially in expanding employment opportunities and household income sources in rural areas. The research results are expected to provide detailed knowledge insights about VF and new directions to fill gaps in further research in the field of VF related to the SDGs. This study will be helpful for policymakers to identify the main factors that influence effectiveness in the distribution of VF. Future policy recommendations suggest that VF allocations should not only focus on developing supporting infrastructure in rural areas but also pay more balanced attention to productive economic development in rural areas through increasing human resource
capacity, strengthening local institutions and empowering communities. Productive economic development programs in rural areas are suggested to produce products based on market demand and local resource raw materials. This program will be successful if it is supported by good-quality human resources in mastering technical skills, business management and entrepreneurship. The VF program can be integrated with product downstream programs to increase added value, expand employment opportunities and improve the welfare of rural communities.

The first limitation is that this research only uses articles from Scopus. Scopus only publishes research results that meet certain requirements and criteria. As a result, publications that do not meet the criteria cannot be represented on Scopus. Scopus may require a subscription fee or institutional access. Bibliometric metrics such as the Hirsch index (h-index) or journal impact factors have limitations in providing a complete picture of research quality or impact. Bibliometric analysis provides only a quantitative view of the scientific literature. For this reason, we suggest that future research agendas can use articles downloaded from the Publish or Perish software program which retrieves and analyzes academic citations that have a wider scope. Second, several studies from Indonesia are still limited to management, recording and reporting related to the VF program. In addition, it also focuses on aspects of human resource competence, morals and village governance. The main areas of future research can focus on how VF is utilized by the village government and local institutions in the village, what is the role and level of participation of local institutions in the utilization and empowerment of village communities, what is the role of gender in the use of VF, and how does the VF program impact on employment opportunities and income of people in rural areas. It is recommended that future studies use quantitative causality analysis to prove that the distribution of VF has a significant effect on Village SDGs.

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