Efficiency and Performance of Microfinance Institutions: A Systematic Literature Review

H.M.A.K Herath[1] , A.A. Azeez[2] and K.G. Priyashantha[3]

[1]Department of Banking & Finance, Faculty of Business Studies & Finance, Wayamba University of Sri Lanka, Sri Lanka
[2]Department of Finance, Faculty of Management & Finance, University of Colombo, Sri Lanka
[3]Department of Human Resource Management, Faculty of Management and Finance, University of Ruhuna, Sri Lanka
[1]asankah@wyb.ac.lk

Abstract

This study was conducted to find out common knowledge in the empirical literature pertaining to the performance and efficiency of microfinance institutions (MFIs), as well as the areas that require more attention for future research. The systematic literature review (SLR) technique was applied and the article selection and findings were reported according to the PRISMA guidelines. 69 empirical journal articles between 2013 and 2023 were included from Scopus database. (1) Efficiency of MFIs (Financial & Social efficiency) (2) performance of MFIs (Social & Financial Performance)**,** (3) sustainable performance of MFIs, were identified as the three most common knowledge clusters. The review established that efficiency and conventional performance analysis of MFIs differ in methodologies and perspectives. Further, it was found that performance assessment, efficiency measurement, productivity, sustainability, and outreach of MFIs are infrequently investigated areas. Financial efficiency, social efficiency, financial performance, and social performance of MFIs were also identified as averagely investigated, creating avenues for more future studies. Thus, the study emphasized the need for further research diversifying perspectives on overall MFI performance to ensure lasting success.

Correspondance : asankah@wyb.ac.lk

ORCID of authors: ⓘD https://orcid.org/0009-0001-5223-4007

Introduction

The role of microfinance institutions (MFIs) in financial systems is becoming increasingly important. Microfinance initiatives have become prevalent during the last decades by providing financial services to low-income families and micro-entrepreneurs(Louis et al., 2013; Mersland et al., 2013; Nogueira et al., 2020) with the ultimate objective of helping them to escape from poverty via financial and social inclusion (Milana & Ashta, 2020). According to Global Microfinance Market Trajectory Analysis (2022), the global microfinance market, estimated at US$157 Billion in the year 2020, is projected to reach an increased size of US$342 Billion by 2027, growing at an annual growth rate of 11.8% over the period 2020-2027. Thus the global microfinance market is forecasted to witness a robust growth rate in the upcoming years. The academic world has also shown increased interest in studies in microfinance (Hermes and Lensink; Miled & Rejeb, 2015; 2007; Nogueira, 2020). Microfinance has been studied in different aspects, inclusive of MFI sustainability, products and services, management practices, clientele targeting, regulation and policy, impact assessment, financial and social performance, self-sustainability, outreach, efficiency, and governance (Bardhan et al., 2021; Brau & Woller, 2004; Gutiérrez-Nieto & Serrano-Cinca, 2019a)

Microfinance institutions perform a vital role within the financial systems of developing countries (Mia et al., 2019) since the lack of access to traditional financial services is a significant obstacle to the prosperity of people with low incomes in developing countries (Akter et al., 2021; Hermes & Lensink, 2007; Iqbal et al., 2019). Further, the improvement of non-financial outcomes, including 'health, food security, nutrition, education, women's empowerment, housing, job creation, and social cohesion, has also been attributed to microfinance (Van Rooyen et al., 2012). With the introduction of Sustainable Development Goals (SDGs) in

2016, the microfinance industry also aims to uphold access not just to credit but also to agriculture, health, housing, education, energy, etc. However, microfinance institutions' success depends mainly on their performance in achieving double bottom-line objectives, namely, outreach and finances (Widiarto & Emrouznejad, 2015). Their substantial performance is, therefore, vital to the economy. Performance evaluation of microfinance institutions has long been a research interest yet remains unsolved in the available literature(Akter et al., 2021). In order to obtain the required performance from microfinancing, it is crucial to update the available knowledge on performance-related aspects of microfinance institutions, and such knowledge is required by the industry(Akter et al., 2021; Mia et al., 2019).

From our review of the literature, it appears that empirical studies have primarily focused on analyzing the performance of microfinance institutions from two perspectives: financial-social performance and efficiency. As discussed, numerous studies have separately analyzed the performance and efficiency of microfinancing. However, fewer studies have conducted literature reviews on the performance and efficiency of microfinancing, especially in bibliometric analysis or systematic literature review contexts (Akter et al., 2021). The review studies try to synthesize the available literature and identify the common focus of the evaluated articles. Further, they address the gaps & resrach directions that attracts the scientific community in near future(Andrlić et al., 2023; Priyashantha et al., 2021a; Priyashantha, Dahanayake, et al., 2022; Priyashantha, De Alwis, et al., 2022b; Priyashantha et al., 2023)

Although several recent bibliometric analyses and systematic literature reviews on different aspects relating to microfinance are available: (Akter et al., 2021; Roy & Goswami, 2013) –on microfinance performance, (Hassan et al., 2021) - on Islamic microfinance; (Liu et al., 2023) - on

ICT and microfinance, (Akter et al., 2021; Gutiérrez-Nieto & Serrano-Cinca, 2019b; Nogueira et al., 2020; Ribeiro et al., 2022; Zaby, 2019) on the general view of microfinance, our study substantially differs and contributes to the prevailing body of knowledge in different aspects. Firstly, our study specifically addresses the performance and efficiency-related literature in microfinance. Other studies focused on a more general overview of microfinance literature as mentioned above. However,Akter et al., (2021) conducted a review study on microfinance performancefor the period of 1995-2020, and they have performed a bibliometric review and thematic analysis. Further, Roy & Goswami (2013) conducted a comprehensive literature review of the body of literature on the performance assessment of microfinance institutions from 1995-2010. Thus, those studies' methodology, content, and context differ from our study. Secondly, we contribute to the existing knowledge by reviewing the most recent literature during 2013-2023, specifically focused on efficiency, performance, and microfinance institutions. We did not focus on studies before 2013, aiming to analyze the most recent knowledge structure in the selected context. Thirdly, we execute the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework for a more accurate systematic literature review and analysis incorporating RStudio and Vosviewer applications. Nevertheless, according to researchers' available knowledge, no study has conducted a systematic literature review addressing both performance and efficiency perspectives about microfinance institutions. These concerns directed the study toward its research problem. Accordingly, it is understood that, although several recent systematic literature reviews on different aspects relating to microfinance are available, there is a gap in recent analysis focused especially on the performance and efficiency of MFIs, both in knowledge and methodological perspectives. Thus, this paper bridges the gap through a systematic literature review from 2013 to 2023 and explores the recent knowledge structure in the mentioned area.

Reviewing research studies on the discussed subject area is crucial because it enables policy formation, decision-making, and the identification of research gaps that should be addressed to understand better how microfinance institutions address performance and efficiency. Thus the findings of the review will update the existing microfinance performance and efficiency-related knowledge. Accordingly, the microfinance industry, policymakers, and other stakeholders will benefit from important facts: by identifying efficiency (financial and social), financial & social performances are different dimensions of performance assessment of MFIs; by identifying other aspects including Outreach, sustainability, productivity which are important in assessing performance of MFIs. Thus, the findings will contribute to the improved performance and efficiency of microfinance institutions, ensuring the expected role of microfinance institutions within the financial system.

Therefore, the objectives of this research are to find (1) the common knowledge and (2) the areas that should be considered for future research in performance and efficiency in microfinancing. Accordingly, this study was directed as a systematic literature review, which systematically and quantitatively evaluated the selected empirical studies on efficiency and performance in the last decade.

The remaining sections of this paper are structured as follows: Section 2 provides a wide overview of the study's methodology. The methodology outlines how the literature review was carried out and analyzed systematically. Section 3 explains the results of the study. In section 4, discussion practicality and research implications are outlined. Finally, the section 5 concludes the paper.

Methods

Study Selection Process and Methods

The study was conducted as a Systematic Literature Review. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, which are highly recommended for SLRs, was used to select the articles, execute the analysis, and report the findings. Following PRISMA guidelines would prevent bias in selecting articles and analyzing and reporting findings (Liberati et al., 2009; Priyashantha et al., 2021a). The PRISMA introduces an article selection process, called the PRISMA flow diagram, with three steps (Identification, Screening, and Included). The identification step comprises selecting databases, search items, and search criteria.

Scopus database was used to select the articles. The automatic screening was done through the default limiting options of the Scopus database. Accordingly, the limiting features included the year range 2013-2023, document type: articles, source type: journal, and language: English. Depending on the inclusion criteria The search terms were, "performance," "efficiency," and "microfinance institutions."

Using these search parameters, Scopus produced 98 articles. Only articles published between 2013 and 2023 were included in the review, while others were excluded. Since only the journals are to be included, other sources like Editors' comments, books, book chapters, book reviews, conference proceedings, and unpublished data were excluded. Other document types were excluded to include only the articles, such as book chapters, conference papers, and reviews. Non-English articles were also eliminated. These eliminations were executed using the default automatic limiting options in the database. Accordingly, 75 articles were selected for manual screening. The related list containing title, authors, journal, publication year, abstract, and received citations were downloaded into an MS Excel sheet. Then, the authors

independently reviewed each abstract against the inclusion criteria, finding 05 articles irrelevant. One article was excluded as its methodology was qualitative. Accordingly, 69 articles were included in the present study. Internal validity of articles is ensured by selecting publications that have used consistent methodology, and the reliability of articles is ensured by rigorously selecting peer-reviewed journal articles.

The researcher's bias in article selection and analysis will cause a reduction in the quality of a review (Kitchenham & Charters, 2007). However, the biases in selection can be minimized by incorporating a systematic review procedure and a systematic article selection process (Priyashantha et al., 2021a, 2023; Xiao & Watson, 2019). The present research has followed the PRISMA guidelines, which provide an objective article selection process. Further, the authors did the independent manual screening, and such an independent screening helps minimize the bias in article selection and analysis (Brereton et al., 2007). Accordingly, steps were taken to prevent selection and analysis bias. The process followed in selecting the articles is demonstrated in Figure 01.

Methods of Analysis

This study incorporated the Bibliometric analysis using Biblioshiny and Vosviewer. The analysis consists of an appraisal, performance, scientific performance analysis, and a collection of scientific maps (Cobo et al., 2012; Priyashantha, De Alwis, et al., 2022b). A scientific map study evaluates a research project's composition, development, and key players (Noyons et al., 1999; Priyashantha & Dilhani, 2022a). Various information, particularly for each article, is used to create maps called bibliometric networks (Callon et al., 1983). The keywords of an article are one example. There could be several connections between keywords due to the co-occurrence of keywords in an article (Aparicio et al., 2019). "The keyword co-occurrence network visualization" tool of VOSviewer, demonstrates such connections in map form.

If two keywords are strongly connected, VOSviewer uses association strength normalization to create a" keyword co-occurrence network visualization" with nodes for each term placed close to one another in a cluster (Van Eck & Waltman, 2014). A cluster is a common theme (Priyashantha et al., 2021a; Priyashantha, De Alwis, et al., 2022a). When a researcher wishes to understand more about the topic of his or her research, redefining the connections between the keywords is critical. And the present study aims at common areas of studies on the selected area; thus, keyword co-occurrence analyses were executed.
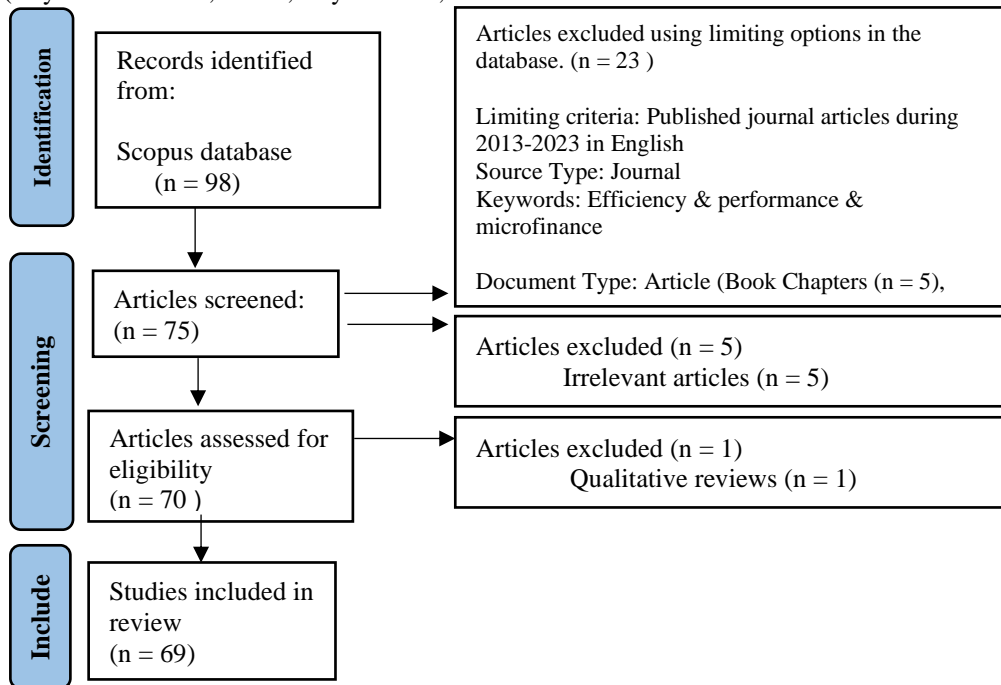

Figure 01: Article Selection Process

Note: Search Algorithm- efficiency AND performance AND microfinance institutions

A variant of the keyword co-occurrence network visualization is the keyword density visualization. Keyword co-occurrence networks and keyword density visualization are comparable. The VOS viewer handbook states that by default, color swatches ranging from blue, green, and red show the keywords' density at each point in the density display map. The more neighboring keywords a location has, the closer its color is red and the greater its weight. The closer a point's color is to green, the fewer nearby keywords there are, and the lower the weights. The color yellow indicates that a point's keywords are average. The keywords in the blue and green sections are therefore regarded to be more research-focused areas.

In addition to the above, the basic information of the article set, annual article production, the average number of citations per article, articles published from the most pertinent sources and mostly cited countries were produced using the R Biblioshiny program. The VOSviewer program produced "country-wise article publications." These were shown to present the profile of the article set chosen for the review.

Findings

Study characteristics

Table 01 shows the basic information of the articles included in the review. The Biblioshiny in R software was used to

generate the basic information for the article set. According to data, 69 articles were published from 2013 -2023 in 59 journals by 160 authors. The average citation per article is 14.45, and the total number of references considered for the review was 3584. The total number of authors' keywords included in the review was 200.

Table 01: Basic information about the article set

Description	Results
Timespan	2013:2023
Sources (Journals)	59
Articles	69
Average years from publication	4.49
Average citations per article	14.45
References	3584
Author's Keywords (DE)	200
Authors	160

Source: Review data, 202

The annual article on efficiency, performance, and microfinance institutions is shown in Figure 02 . There has been a gradual increase since 2013, with slight fluctuations between the years. It indicates that the interest of researchers in the subject area has been increasing. However, From 2019 onwards, the annual article production displays a negative turn. This indicates that the available knowledge on the relevant field should be updated. For the betterment of the industry, there is a need of more knowledge through increased scientific studies.
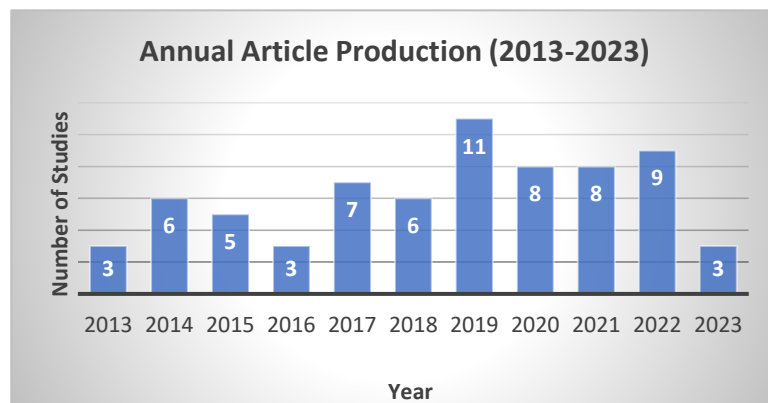

Figure 02: Annual article production

Source: Review data, 2023

However, the number of citations obtained by each article has a decreasing trend during the period, as depicted in Figure 03. It indicates a decrease in the popularity of the studies in the relevant field. Eventhough, there can see a decreasing popularity among the scholars, the microfinance as a financial industry is becoming more important in uplifting economic health of poor people all over the world. Therefore, academic community can play a big role by sharing more knowledge and attracting potential studies.
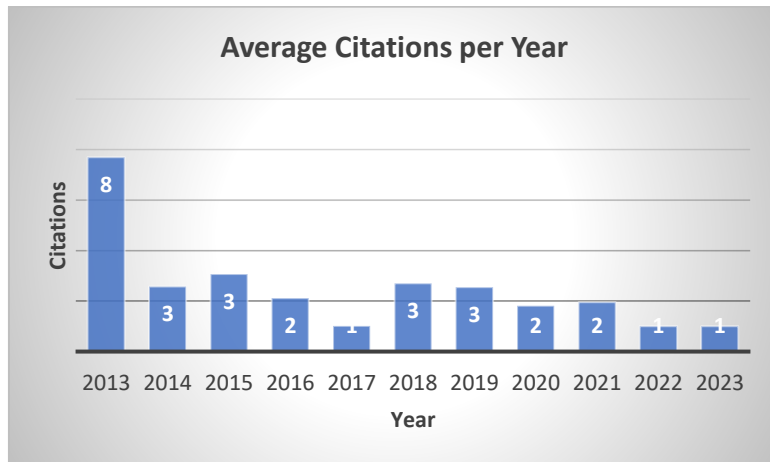
Figure 03: Average article citations received per year
Source: Review data, 2023

Concerning the source journal of publications, the information is given in Figure 04. Accordingly, the Advanced Science Letters Journal published the most articles.
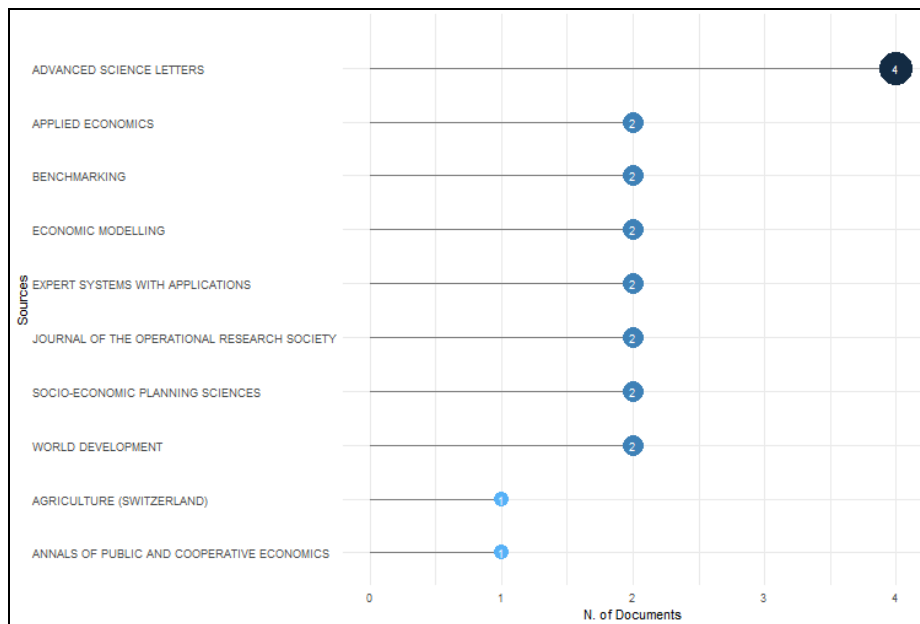

Figure 04: Most relevant sources articles published
Source: Review data, 2023

The mostly cited countries for the articles produced are presented in Figure 05. According to the analysis, Spain, Malaysia, United Kingdom, Norway, France, Netherlands and India are the top seven of mostly cited countries. This indicates that mostly cited studies are mainly from western countries (comperatively developed). This may be due to the selected keywords and the article database. However, microfinancing is highly important for developing or less developed countries and knowledge circulation among those countries is required.
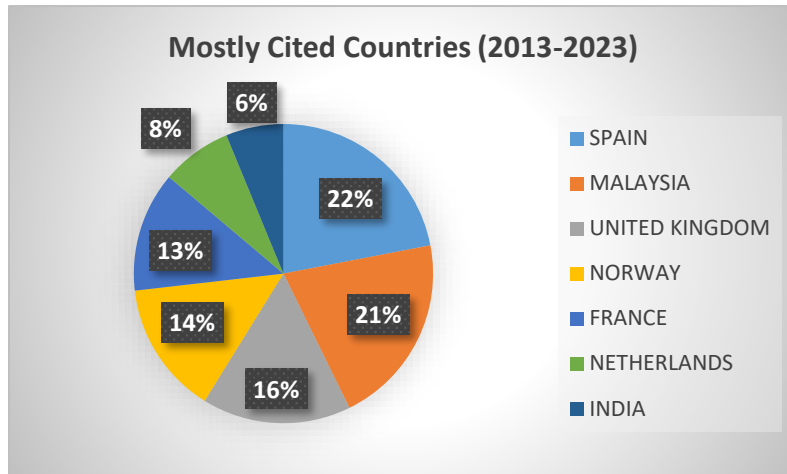

Figure 05: Mostly Cited Countries (2013-2023)

Source: Review data, 2023

The country-wise article publications are depicted in Figure 06. It indicates the cross-country relations in the relevant research area. The size of the colored nodes in the figure represents the number of publications in each country. As per the findings, India (13) and Malaysia (12) have produced a comparatively high number of articles. The countries which are not presented by the analysis, are not producing a considerable number of studies on selected study areas. This indicates country-wise potential.
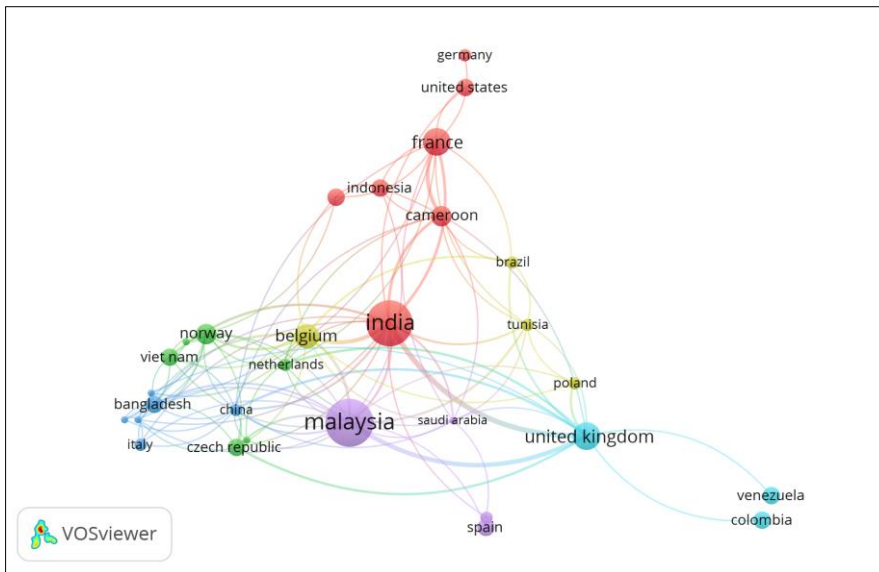
Figure 06: Country wise article production

Source: Review data, 2023

Thematic Observations: Common Areas Investigated in Performance and Efficiency of MFIs

Section 3.3. addresses the first objective of the present study which i to find out common knowledge in the empirical literature on the performance and efficiency of MFIs from 2013 to 2023. Findings of the map of keyword co-occurance network analysis were used to categorize the theme into clusters (Figure 07).

Figure 07: The map of keyword co-occurrence network

Source: Review data, 2023

According to the analysis, three main clusters were found, representing different themes. These three themes are denoted by three differe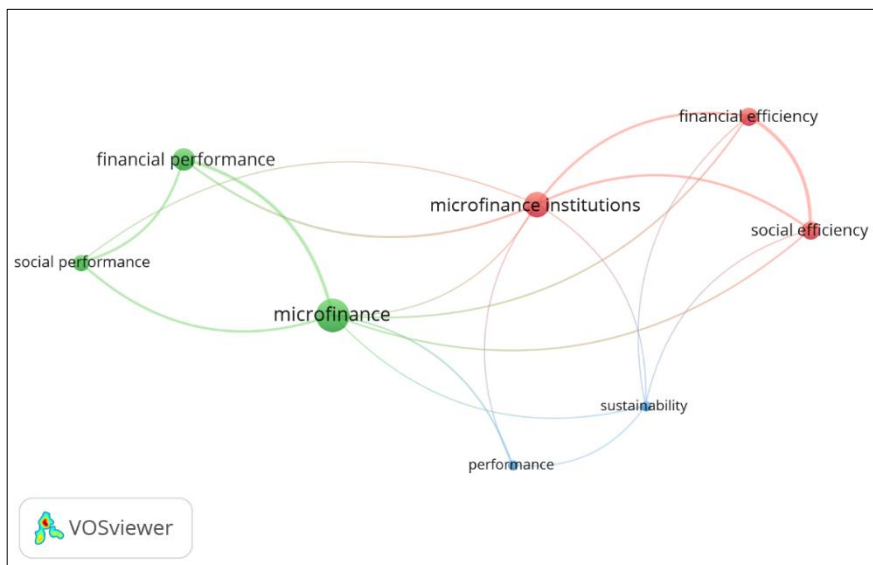nt colurs (red, green and blue). Thus,Efficiency, Performance and Sustainability of MFIs are identified as common themes of available studies. The results received for each cluster can be discussed as follows.

Table 02: Keyword clusters

Cluster	Keywords	Theme
Cluster 1	Financial efficiency, Social efficiency, Microfinance institutions	The efficiency of microfinance institutions
Cluster 2	Financial performance, Social performance, microfinance	Performance of microfinance institutions
Cluster 3	Performance, sustainability	Sustainable microfinancing

Source: Review data, 2023

Cluster 1: Financial efficiency, Social efficiency, Microfinance institutions (Efficiency of microfinance institutions)

MFIs are crucial to the fight against poverty. In order to ensure that their goals for social welfare and financial performance can be met, MFIs should be efficient at identifying the relevant drivers, specifically social globalization (Hussain et al., 2021). Efficiency in microfinance refers to the ability of MFIs to transform inputs into outputs by either maximizing outputs with given inputs or minimizing inputs with given outputs (Balkenhol, 2007). In other words, eficiency in microfinance institutions refers to how well microfinance institutions allocate the input resources such as assets, subsidies, and personnel to produce output measured in terms of the loan portfolio and poverty outreach (Bassem, 2008). Another new branch of literature addresses microfinance performance from an efficiency perspective (Adusei, 2019; Bibi et al., 2018; Khan & Shireen, 2020; Mia et al., 2019, 2023; Van Damme et al., 2016; Wijesiri et al., 2017; Zheng & Zhang, 2021) Studies thus recommend relative efficiency as a performance criterion that can be applied equally to measure overall, social, and financial aspects of MFI performance (Widiarto & Emrouznejad, 2015). Efficiency in Microfinance institutions can be separated into two components; financial efficiency and social efficiency. Empirical studies on the efficiency of Microfinance institutions have shown different results, with most indicating that Microfinance institutions are not yet efficient in using their input resources to produce output (Adusei, 2019; Bibi et al., 2018; Khan & Shireen, 2020; Kipesha, 2012; Mia et al., 2019; Van Damme et al., 2016; Wijesiri et al., 2017; Zheng & Zhang, 2021). With the increasing number of MFIs reaching people with low incomes globally, it becomes imperative to understand the dynamics of the efficiency of MFIs in providing financial services to people experiencing poverty. In terms of methods and approach, previous studies have employed ratio analysis and parametric and non-parametric techniques, the latter accounting for most existing literature. More specifically, most of the MFIs' efficiency studies utilized a parametric technique known as the Stochastic Frontier Analysis (SFA) and a non-parametric technique known as Data Envelopment Analysis (DEA). In contrast, the DEA was used extensively in the literature to measure the efficiency of MFIs (Gutierrez-Goiria et al., 2017; Kaur, 2016; Mia et al., 2019; Piot-Lepetit & Nzongang, 2014; Wijesiri et al., 2015, 2017; Wijesiri & Meoli, 2015). The DEA utilizes mathematical programming to estimate efficiency, which requires multiple inputs and outputs.

Cluster 2: Social Performance, Financial Performance, Microfinance (performance of microfinance institutions)

Two extents measure microfinance institutions' performance: financial sustainability and poverty outreach. Performance on poverty outreach considers MFIs' social goal of helping the poorest people. Thus, unlike conventional financial institutions, MFIs have double – and social–bottom–lines, which work especially toward a financial bottom line (Piot-Lepetit & Nzongang, 2014). Measuring the performance of MFIs based on a single parameter was not acceptable to the stakeholders of the microfinance industry, as this did not appear to be a rational approach. That is why, later on, researchers and many developmental organizations tried to assess MFIs based on multiple dimensions (Roy & Goswami, 2013). The performance of MFIs can be evaluated from various measures. According to one segment of studies in related literature, MFIs performance has been popularly addressed and measured by financial performance and social/outreach performance (Ben Abdelkader & Mansouri, 2019; Gohar & Batool, 2015; Hartarska, 2005; Kyereboah-Coleman & Osei, 2008; Mersland & Øystein Strøm, 2009; Wijesiri et al., 2015). In general, social performance is related to the degree of client poverty, the emphasis on clientele who are women, the volume of clients, the kind of products offered, and the price of microfinance services. Financial performance considers institutional viability, profitability, effectiveness, productivity, and portfolio quality (Reichert, 2018). From the perspective of microfinance, the indicators normally used to calculate financial performance are: return on assets (ROA), return on net equity (ROE), operational self-sufficiency, and financial self-sufficiency (Strøm et al., 2014), profitability, the level of MFI debt (Louis et al., 2013), the ratio between expenses and financial revenues, and the MFI asset portfolio (Bartual Sanfeliu et al., 2013). Thus, Financial performance is assessed in terms of overall profitability

through such measures as return on assets (ROA), operational self-sufficiency (OSS), revenues (portfolio yield), and operational costs. Broadly, social performance relates to the poverty level of clients, the focus on women clients, the number of clients, the type of products delivered, and the cost of microfinance services (Ben Abdelkader & Mansouri, 2019; Hartarska, 2005; Reichert, 2018; Strøm et al., 2014).

Cluster 3: Performance, sustainability (sustainable performance of microfinance institutions)

The inquiry of 'sustainability' in microfinance is a subject of ongoing debate (Baumann, 2004).To continue providing financial services to people experiencing poverty on a sustaining basis, the MFIs themselves must be viable and sustainable. MFIs aim for long-term sustainability while seeking returns on their activities (Costa, 2017). Additionally, many MFIs define sustainability as the capacity to maintain long-term operations rather than a strictly financial definition. Some MFIs (for-profit MFIs like banks or rural banks) achieve sustainability by becoming profitable; however, there are other MFIs, such as non-governmental organization-based MFI (NGO-MFI), where profitability is not a major focus, thus achieving sustainability by contribution from donors or outside grants. The latter group comprises development NGOs offering microloans to underprivileged people in catastrophe and war-torn areas (Widiarto et al., 2017). Thus, it may be concluded that only financial and social performances are not the only criteria; other aspects of performance, e.g., outreach, sustainability, efficiency, productivity, institutional characteristics, and governance, are also very important while assessing the performance of MFIs. Thus, financial performance, social performance, outreach, sustainability, efficiency, productivity, institutional characteristics, and governance as the criteria to measure the overall performance of MFIs (Roy & Goswami, 2013). (Baumann, 2004) measured

sustainability by: Coverage of administrative costs, Loan loss, Cost of funds, Inflation, and Capitalization for growth from operating income.

Areas That Need More Focus for Research

The section 3.4 addresses the second objective of the preset study, which is to identify the areas that require more attention for future research. More research is possible on a specific area by labeling the keyword when that keyword is in the red background on the density visualization map (Chen et al., 2016). Therefore, it is considered sufficient knowledge of that specific area to locate the keyword (An & Wu, 2011).On the other hand, if the keyword is in the green background, it is presumed that there is comparatively limited research in that particular area locating it (Chen et al., 2016). By referring to these guidelines, all keywords were loaded to the VOSviewer and results are shown in Figure 08. The results revealed that institutions & efficiency had been frequently researched during 2013-2023. It was justified to have that funding as those represent the main keywords of the present study. Besides that, none of the remaining selected keywords are in the significant red background. This indicates that sufficient research studies that generate connected knowledge are unavailable in related areas of efficiency and performance of microfinance institutions. The rest of the keywords are in yellow and green areas. Financial efficiency, social efficiency, and financial performance & social performance have been investigated an average number of times. It can be concluded that knowledge created in those areas is insufficient for a strong knowledge in the research area of efficiency and performance of microfinance institutions. The rest of the research areas in Figure 08, including productivity, performance assessment, efficiency measurement, sustainability, financial sustainability, etc., are infrequently investigated since they are in green areas. Accordingly, the analysis provides information on areas that need further research. Therefore the findings suggest areas like; Financial efficiency, social efficiency, financial performance, social performance , productivity, performance assessment, efficiency measurement, sustainability, financial sustainability, profitability , and outreach of MFIs are need to be addressed by potential scientific investigations.
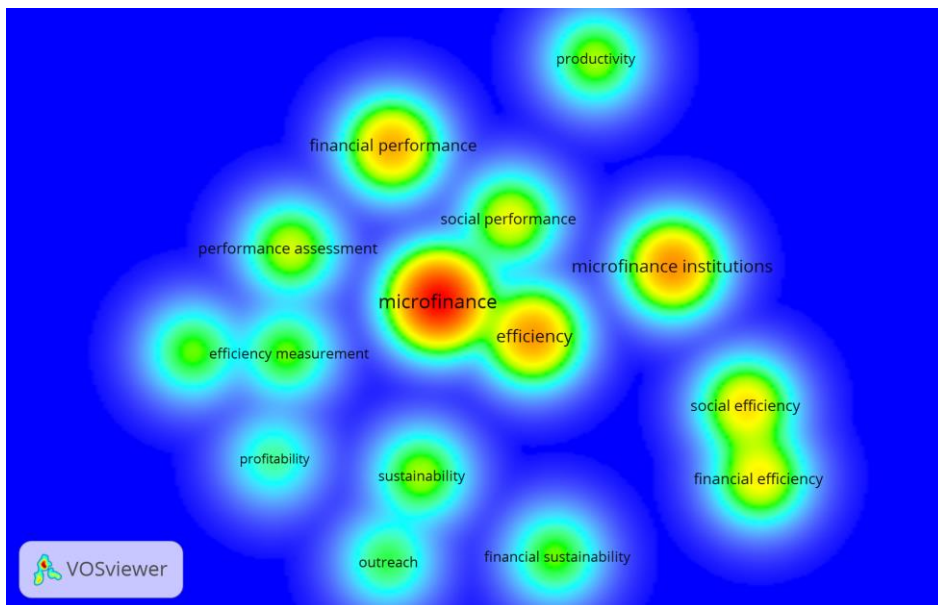

Figure 08: Map of keyword Co-occurrence density visualization

Source: Review data, 2023

Reporting Bias Assessment

The PRISMA mandates reporting the bias assessment in results synthesis due to the absence of pertinent results. (Andrlić et al., 2023; Priyashantha, 2022; Priyashantha, Dahanayake, et al., 2022; Priyashantha, De Alwis, et al., 2022b; Priyashantha et al., 2021a, 2021b; Priyashantha & Dilhani, 2022b) Thus, the systematic assessment was not used for this task; however, systematic and objective software utensils were followed to avoid bias in reporting the findings. Additionally, after doing a co-occurrence analysis of the keywords, the authors independently cross-checked the corresponding findings of each keyword. If there was any difference of opinion, it was settled through the "authors" consensus.

Discussion

Microfinance experienced a considerable growth during the last decades, throughout the world (Louis et al., 2013). A common segment of studies in the field of microfinance has focused on assessing the efficiency of microfinance institutions, exploring the factors that influence this efficiency, and examining the impact of internal and external organizational factors on the efficiency of microfinance. As mentioned, the segment of empirical scholars investigated the capacity of MFIs to maximize their outreach while following cost-saving policies, and the objective was to analyse the efficiency of MFIs (Mia et al., 2019). Those studies proposed relative efficiency as a performance criterion that can be useful to measure overall, social and financial aspects of MFI performance (Widiarto & Emrouznejad, 2015). These studies have typically categorized efficiency into two subcategories: financial efficiency and social/outreach efficiency, both considered critical for achieving microfinance institutions' ultimate financial and social goals. Those studies have defined the performance of microfinance institutions in terms of efficiency. The higher the efficiency, the higher the performance of microfinance institutions. To provide further

detail, a large portion of the studies analyzing the efficiency of microfinance institutions have employed two primary techniques: Stochastic Frontier Analysis (SFA), which is a parametric technique, and Data Envelopment Analysis (DEA), which is a non-parametric technique. Studies focus on efficiency as the ratio of outputs to inputs; considering financial and social targets, input-output variables were selected subjectively. (Examples for inputs; Assets, operating expenses, portfolio at risk 30 days, the total number of employees, number of credit officers, cost per borrower . Examples for output: Financial revenue, average loan balance per borrower, gross loan portfolio, number of active female borrowers and number of borrowers (Roy & Goswami, 2013; Soldátková & Černý, 2022; Tahir & Che Tahrim, 2013; Van Damme et al., 2016; Wijesiri et al., 2017; Zheng & Zhang, 2021). Efficiency approaches are commonly used to measure microfinance institutions' relative efficiency, effectively identify the factors that contribute to efficiency, and evaluate the impact of organizational and external factors on efficiency. From efficiency perspective, a MFI must endeavor for efficiency in its social and financial purposes. DEA facilitates different specifications to measure overall efficiency, social efficiency and financial efficiency (Widiarto & Emrouznejad, 2015). Accordingly, in these studies, efficiency is suggested as a suitable criterion for measuring microfinance institutions' overall performance. This choice is based on its ability to encompass various dimensions of microfinance and its applicability to both commercial and not-for-profit MFIs.

Another prominent area of research in microfinance is assessing the performance of microfinance institutions, by evaluating microfinance institutions' financial and social performance, often using quantitative and qualitative measures. Financial performance is evaluated normally based on conventional profitability measures such as ROA, OSS, (portfolio yield), and operational costs . Overall, social/outreach performance measures such as average number of clients,

number of wemen borrowers, average loan size, number of branches, are used to evaluate microfinance institutions in achieving their social mission and goals (Bardhan et al., 2021; Gohar & Batool, 2015; Mersland & Øystein Strøm, 2009). In addition, these studies also explore the impact of various internal and external factors on the performance of microfinance institutions, including governance structures, management practices, funding sources, and regulatory environments (Gohar & Batool, 2015). Overall, performance assessments aim to provide insights to help microfinance institutions improve their operations and better serve their clients.

The methodologies used to assess "efficiency" and "performance" are distinct. Efficiency analysis typically measures the degree to which microfinance institutions can produce a given output level with the minimum amount of input using techniques such as Stochastic Frontier Analysis (SFA) and Data Envelopment Analysis (DEA). The ultimate output of efficiency analysis is typically a measure of relative efficiency, which indicates how well a microfinance institution can use its resources to achieve its goals. In contrast, performance analysis typically aims to assess microfinance institutions' overall financial and social performance, using a range of indicators such as return on assets (ROA), operational self-sufficiency (OSS),portfolio yield and poverty outreach. The ultimate output of performance analysis is typically a comprehensive evaluation of the effectiveness of microfinance institutions in achieving their financial and social objectives. Therefore, while the terms" efficiency" and "performance" are often used interchangeably, the outputs of efficiency analysis and performance analysis are distinct and reflect different aspects of microfinance " institutions' operations and impact.

The concept of sustainability has been a subject of ongoing debate in microfinance (Costa, 2017). In recent years, there has been increasing recognition of the need to ensure the long-term sustainability of microfinance institutions, particularly in light of the rapid growth of the industry and concerns about over-indebtedness and client protection(Bhayana & Sharma, 2022). A research segment has focused specifically on the sustainable performance of microfinance institutions, using indicators such as financial self-sufficiency, outreach to low-income people, and client retention rates. However, there is still much debate and disagreement about what constitutes sustainable microfinance and how best to measure and evaluate sustainability in the context of microfinance.

In section 3.4 of the study, it was found that areas such as performance assessment, efficiency measurement, productivity, sustainability, financial sustainability, outreach, and others were infrequently investigated. Additionally, the study found that research areas of financial performance and social performance, financial efficiency, and social efficiency were also researched only an average number of times, creating gaps in the efficiency and performance of MFIs. These findings are supported by the bibliometric analysis conducted in 2020, which concluded that, the evaluation of microfinance institutions (MFIs) has consistently been a subject of significant research attention, yet still present unresolved questions in the existing literature (Akter et al., 2021) This suggests that the common themes identified in section 3.3 are not extensively researched, and more knowledge is needed in the context of microfinance institutions' efficiency and performance.

Limitations

The present study is focused on empirical research on the efficiency and performance of microfinance institutions. The search was limited to these two areas, and as a result, the study focuses solely on the underlying segments of efficiency and performance within microfinance institutions. Furthermore, it should be noted that the '''

'study's search for relevant articles was limited to a single database. Furthermore, we looked at only empirical studies, ignoring other types. This omission leaves out a significant amount of relevant literature. A more comprehensive search across multiple databases may have identified additional articles related to the research topic, thereby enhancing the study's findings. Future research in this area may consider searching across multiple databases to maximize the scope of their findings.

Implications and Future Research Agenda

Efficiency, performance and sustainability of MFIs were identified as the commonly investigated areas of related literature. Further, the findings of the study suggest avenues for future research agendas. Accordingly, recommends more research on areas such as performance assessment, efficiency measurement, productivity, sustainability, financial sustainability, outreach, etc., to identify and examine diverse factors and dimensions that impact overall performance of MFIs. When the practicality of the findings of this study is concerned, although the concept of "efficiency" has been used as an approach to measure the "performance" of MFIs, the outcomes and methodologies of efficiency analysis (social and financial efficiency) and performance analysis (social and financial performance) are different, and reflect diverse aspects of microfinance institutions' activities and effects. The review of articles also justifies that performance and efficiency are two different research areas of microfinance, where efficiency can be identified as a dimension of overall microfinance performance. Thus, researchers, policymakers, microfinance practitioners, investors, donors, and other stakeholders can utilize this idea when making decisions on the performance and efficiency of MFIs. This indicate that decision-makers and advisors must employ diverse strategies and methodologies.

The microfinance movement originated in the mid-1970s in Bangladesh and underwent several structural transformations over time. The transformations in the microfinance landscape prompt inquiries into their impact on the activities and performance of MFIs over time. The rapid expansion of the microfinance industry has led to studies examining MFI performance, utilizing different approaches and techniques (Li et al., 2019). Conventional financial metrics are inadequate for evaluating microfinance performance because the sustainability of an MFI, owing to its social objectives, extends beyond mere profitability. Instead, MFI sustainability entails the capacity to operate over the long term without facing the risk of bankruptcy. The issue of partiality can create confusion for stakeholders of microfinance institutions (MFIs) when attempting to benchmark the overall performance of one MFI against others. This benchmarking process is crucial for fostering improvements in MFI performance (Widiarto & Emrouznejad, 2015). The industry requires the sustainability of microfinance institutions, and good performance is a vital factor in achieving sustainability Therefore more future researches are needed by focusing different approaches of microfinance institutions' overall performance.

Conclusion

This study employed a systematic literature review (SLR) methodology guided by the PRISMA guidelines to find out common knowledge in the empirical literature on the performance and efficiency of MFIs, as well as the areas that require more attention for future research. The inclusion criteria were established in advance, and 69 articles were selected for review from the Scopus database over the period from 2013 to 2023, to investigate the academic research on efficiency and performance of microfinance institutions. The study used VOS viewer software to analyze literature. Several bibliometric indicators facilitate the tracking of knowledge including the identification of annual article production, average citations per article, prominent publication sources

and countries, map of keywords, and keyword co-occurance density visualization. The first objective was accomplished by identifying significant research themes; (1)Efficiency of microfinance institutions (2)performance of microfinance institutions and (3)Sustainability of microfinance institutions, as main clusters alongside foundational research centered on "microfinance" and "microfinance institutions".

The second objective was accomplished by finding areas for future research. They include all research areas found in objective one and several other areas relating to microfinancing, such as performance assessment, efficiency measurement, sustainability, financial sustainability, outreach, and productivity. All these are the underlying contributors to microfinance institutions' efficiency and performance. Therefore, future research may consider the areas highlighted to fulfil the existing knowledge gaps revealed by this study. Further, Since the analysis has not reported Sri Lanka as a country which produces good number of artcles in the area of microfinance performance and efficiency, it can be observed that there is a knowledge gap to be filled in Sri Lankan context. These findings justify that the assessment of MFIs' performance in different aspects, remains a relatively uncertain domain of research due to their distinctive business characteristics, underscoring the need for further scientific investigation (Akter et al., 2021). Microfinance sector viability rests on robust MFI performance, emphasizing the need for further research diversifying perspectives on overall MFI performance to ensure lasting success.

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