

Poverty in Malaysia Region: A Bibliometric Analysis

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Abstract

This bibliometric study aims to analysis focus on the keywords "poverty" and "Malaysia" in the Scopus database from 2018 to 2023. In total, 395 documents were extracted for this study, which successfully identified all of the research questions and conducted numerous analyses on things like the yearly trend of publications, the most influential institution, the most cited author, the type of documents, the most popular journals for the same field of study, and many other things. There are four research questions in this study; (1) What is the publication trend in this research field?,(2) Which are the influential journals and research organizations dominating this research field?,(3) What is the top-cited research publications in this research field?, (4) What is the future research's direction in this research field?. This study shows the future direction for the poverty issues in Malaysia and enlightens the area of poverty dimensional for a greater contribution.

Keywords: Bibliometric, Malaysia, Poverty, Trend Publication, VOSviewer

Introduction

The subject of "poverty" was thoroughly elucidated in the publication entitled "Handbook on Poverty and Inequality," prepared by Hickel (2017) and published by the World Bank. According to Saribulan et al. (2023), individuals are deemed impoverished if the average monthly production per resident falls below the poverty threshold. If individuals within a group exhibit an average level of productivity or income that falls below the per capita threshold on a monthly basis, they are classified as belonging to the poor population (Mbugua et al., 1995). Poverty refers to the state experienced by individuals or communities who lack the means to satisfy their basic needs, in order to survive and develop a dignified life progress (Arifuzzaman et al., 2021).

According to Ravallion (2020), Malaysia is classified as a developing nation and has achieved notable success in poverty reduction, thus positioning Malaysia as one of the world's fastest countries to achieve such progress. According to Syukri et al. (2019), the poverty rates in Malaysia over the years 1970, 1980, 1990, 2002, 2004, and 2007 were recorded as 49.3 percent, 37.4 percent, 16.5 percent, 6.0 percent, 5.7 percent, and 3.6 percent, respectively. However, Rongen et al. (2023) in his study found otherwise, based on micro-level statistics, that Malaysia has not achieved significant achievement in reducing its poverty population between the years 2004 and 2016. A comparable discovery was made in 2009, wherein the poverty rate in Malaysia shown a rise to 3.8 percent (Che Mat et al., 2012).

The issue of poverty in Malaysia has consistently been a prominent topic of discussion and a key indicator for assessing the effectiveness of governmental governance. The issue of poverty in Malaysia has persisted as a significant challenge over the course of its history (Halik & Webley, 2011). Malaysia is actively engaged in combating poverty within its Islamic community through the implementation of the Zakat and Waqf system (Nawai and Ruzaiman, 2022; Al-Mamun et al., 2020; Razak, 2020). Poverty encompasses various dimensions, including but not limited to health, education, living standards, environmental sustainability, employment, social and political involvement, social connections and relationships, empowerment and agency, and energy poverty (Hlasny et al., 2022). Nonetheless, the discussion of these concerns and challenges is highly intriguing due to their universal prevalence throughout countries worldwide. The purpose of this bibliometric study is to provide an overview of prior studies on the subject of poverty in Malaysia from 2018 to 2023. There exist four research questions (RQs);

RQ I. What is the publication trend in this research field?

RQ II. Which are the influential journals and research organizations dominating this research field?

RQ III. What are the top-cited research publications in this research field?

RQ IV. What is the future research's direction in this research field?

This paper is organized as follows: (1) the introduction provides general information on poverty and poverty issues in Malaysia, as well as the objectives of this study; and (2) the literature review summarizes previous studies on related to bibliometric in term of poverty. Next (3) is the research methodology and research strategy, followed by (4) the results and (5) a discussion of the study's objectives. Lastly, (6) the study's conclusion and limitations.

Literature Review

Past Studies of The Bibliometric Analysis

	Journal tittle	Search Strategy	Data Source	Total Document extracted and period of years	Bibliometric Attributes Examined
Nilashi et al. (2023)	"COVID-19 and sustainable development goals: A bibliometric analysis and SWOT analysis in Malaysian context"	("Sustainable Development Goals" OR "SDGs" OR "SDG") AND ("COVID-19" OR "Coronavirus" OR "SARS-COV-2")	Scopus and WoS	378 Documents (2019 until 2021)	<ul style="list-style-type: none"> - Co-authorship network: countries and organizations - visualization of co-occurrence diagrams: (a) network visualization, (b) density visualization - Strengths, Weaknesses, Opportunities, and Threats (swot) analysis - A visualization of term- co-occurrence diagrams: (a) network visualization, (b) density visualization - distribution of papers per country. - Visualization of co-authorship analysis: (a) countries and (b) organization. - Swot analysis of sdgs in the current covid-19 crisis. - Number of citations and total link strength based on organization.
Wahyudi et al. (2022)	"Examining Trends, Themes and Social Structure of Zakat Literature: A Bibliometric Analysis"	("zakat" OR "zakah")	Scopus	405 documents (1969 until 2021)	<ul style="list-style-type: none"> - Overlay visualization map of author keywords with at least three occurrences - Most productive contributors in zakat studies - Most productive authors with a minimum of five publications - Most productive institutions - Top 10 institutions contributing to the publications of zakat literature - Most productive countries - Contributed to the zakat publications - Network visualization map of co-authorship among authors. - Network visualization map of co-authorship among countries. - Cluster of collaborations among countries - Top 20 highly cited documents
Hassan et al. (2021)	"Islamic microfinance: A bibliometric review"	("microfinance" OR "micro finance" OR "micro-finance" OR "micro credit" OR "microcredit" OR "small medium enterprise" OR "SME" OR "SMEs") combined with AND ("islam*" OR "sharia" OR "shari'ah" OR shari'ah")	Scopus	122 documents (2000 until 2020)	<ul style="list-style-type: none"> - Co-authorship - Bibliographic coupling - Islamic microfinance. - Authors' and journal impact. - Bibliographical coupling of sources. - Future research directions - Most frequently published authors in Islamic microfinance. - Author-affiliated institutions.
Misbah et al. (2022)	"Sustainable Development, Regional Planning, and Information Management as an Evolving Theme in Waqf Research: A	(TITLE ("waqf" OR "wakaf" OR "waqaf" OR "awqaf")).	Scopus	281 documents (2011 until 2020)	<ul style="list-style-type: none"> - Descriptive and trend analysis - Main information regarding selected articles - Annual publication trends - Most productive authors - Most cited papers - List of most cited papers - Most productive countries and affiliations - Most frequent journals and keywords - Highlights according to frequent words

	Bibliometric Analysis”				<ul style="list-style-type: none"> - Overlay visualisation of the co-occurrence of all keywords - Item density visualisation of author keywords - cluster density visualisation of the co-occurrence of author keywords
Akter et al. (2021)	“Knowledge mapping of microfinance performance research: a bibliometric analysis”	<p>TITLE-ABS-KEY ((“microfinance” OR “micro-finance” OR “micro finance” OR “microcredit” OR “micro-credit” OR “micro credit” OR “microlending” OR “micro-lending” OR “micro lending” OR “microbank*” OR “micro-bank*” OR “micro bank*” OR “microsaving*” OR “micro saving*” OR “micro-saving*”) AND (performance* OR “outreach” OR “efficienc*” OR “productivity” OR “tradeoff*” OR “tradeoff*” OR “social performance*” OR “social- performance*” OR “financial performance*” OR “financial- performance*”)</p>	WoS and Scopus	1,252 documents (1995 until 2020)	<ul style="list-style-type: none"> - Summary of the search results - Authors’ contributions in research - Yearly publication trends - Trends in publications - Top 10 most publishing and prominent authors - Top authors’ publications over time - Top 10 most publishing and influential sources - Top cited publications - Most productive institutions, country affiliations and citations - Collaboration world map - Institutional collaboration network - Three-fields plot (top 10 publication sources, countries and institutional affiliations) - Most frequently used keywords by authors - Conceptual research structure based on author keywords - Trends of author keywords - Thematic map of research - Thematic evolution of research
Alshateer et al. (2021)	“What do we know about zakat literature? A bibliometric review”	“Zakat” and “Zakah,”	WoS and Scopus	430 documents (1969 to May 2020)	<ul style="list-style-type: none"> - General information and performance analysis - Query wording - General information - Distribution of zakah literature over time - Most relevant journals - Influential journals based on Bradford’s law - Number of articles per country - Most relevant institutions (affiliations) and authors - Most cited documents - Most local cited sources from the reference list - Most cited authors, countries, institution (affiliations) - Co-citation of countries, sources, Co-citation of authors - Keyword occurrence and connectivity - Tree map for top 50 keywords used by authors - Future research directions
Sawandi and Aziz, (2021)	“The Missing Link in Zakat Management: A Systematic Literature Review and Bibliometric Analysis”	(TITLE-ABS-KEY ((zakat management “OR” zakat AND management AND (zakat distribute* OR zakat collect*))	WoS	322 documents (1991 until 2021)	<ul style="list-style-type: none"> - Document by year - Documents by author - Top 25 keywords related to zakat management - VOSViewer visualisation on the clustering network themes - The VOSViewer visualisation for the category for islam - The VOSViewer visualisation for the return category - The VOSViewer visualisation for the zakat management category - The VOSViewer visualisation for the effect category

					- The VOSviewer visualisation for the framework category
Mushtaq et al. (2023)	“Women financial inclusion research: a bibliometric and network analysis”	TS= (“Financial Inclusion” AND “Women”)	Scopus	235 documents (2009 until 2022)	- Publication performance - Publications by year - Tabular information on searched literature - Publications by year - Most contributing stakeholders - Country wise co-authorship analysis

Methods

According to Huang et al. (2022) and Mohamad et al. (2024), bibliometric review is a statistical method that allows one to do a quantitative analysis of academic literature on a particular subject. This method presents a summary of the existing body of literature and identifies the most significant contributions made by authors, nations, and research institutes. In addition to this, the keyword analysis provides a synopsis of the most important study themes as well as potential future research directions.

Visualization software

For the purpose of this study, we utilized the program known as the visualization of similarity viewer, or VOSviewer, to construct, visualize, and conduct research on bibliometric networks (Li et al., 2022; Huang et al., 2022). VOSviewer makes it possible to connect with renowned writers, journals, institutions, and publications through its many networks. In addition to this, it enables visualization at scales that would otherwise be impossible to achieve when employing manual methods or legacy software tools (Kuzior and Sira, 2022). The text mining analytic technique builds network maps of co-occurrence keywords using VOSviewer as its primary tool. These network maps are derived from the abstracts and bodies of particular research papers. VOSviewer is a piece of software that, in comparison to other computer applications, places a greater emphasis on the graphical display of bibliometric maps (Tamala et al., 2022). In addition, massive bibliometric maps can be displayed and interpreted with relative simplicity using VOSviewer.

Search Strategy

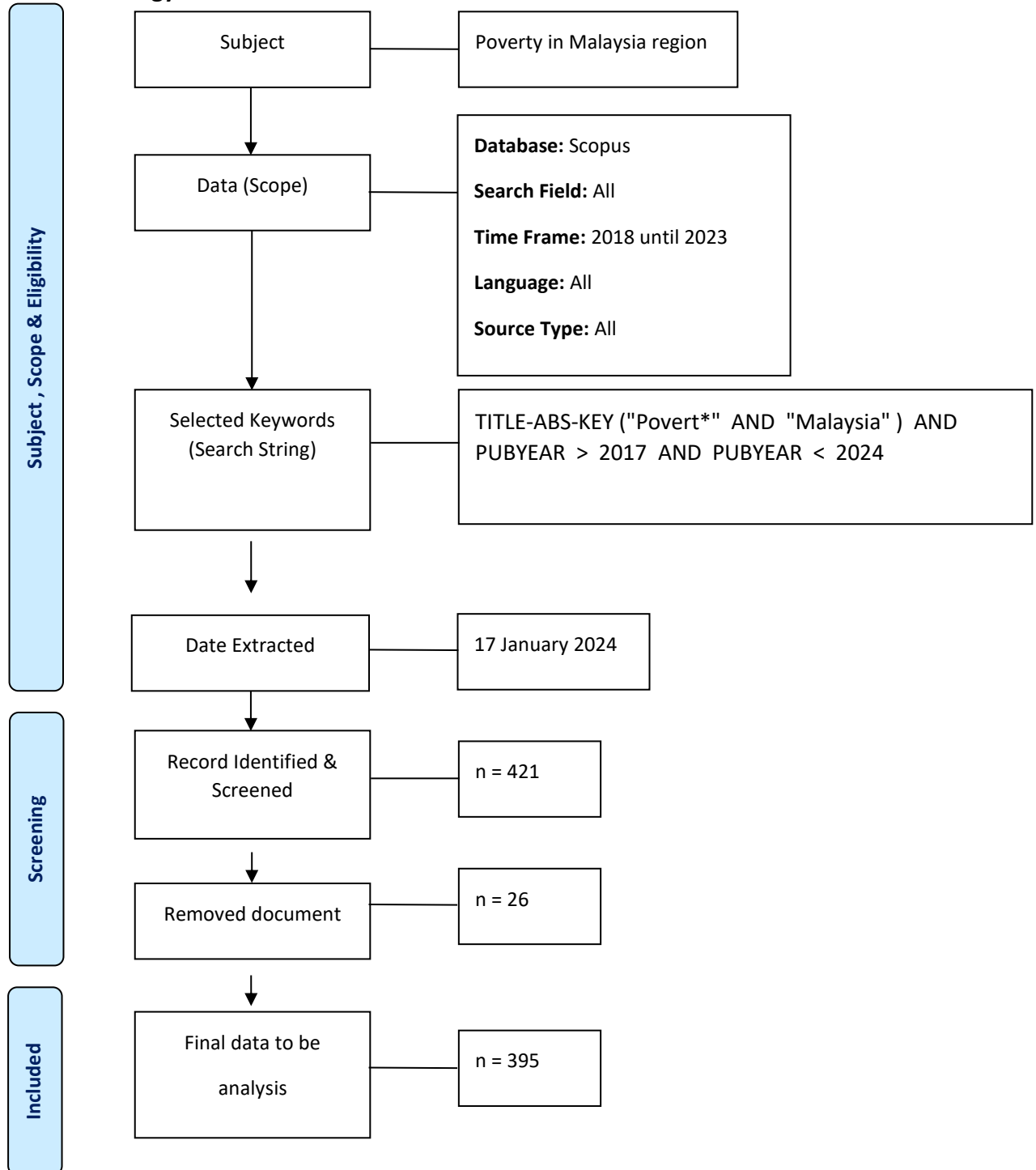


Figure 1. Searching Diagram.

Results

Documents

This section examined the article distribution according to document type. From a total of 294 articles, this study identified eight different types of documents. The overview of the results is presented in Table 2 and Figure 2. The majority of documents published are articles with 294 publications mean about 74.43% per overall document. Followed by 43 publications (10.89%) book chapters, 33 publications from conference papers, 13 review journal, and 6 books. Three most small document record are the conference review with three publications (0.76%), letter with two publications (0.51%) and only one publication document is editorial.

Table 2

Document Type

Document Type	Total Publications (TP)	Percentage (%)
Article	294	74.43
Book Chapter	43	10.89
Conference Paper	33	8.35
Review	13	3.29
Book	6	1.52
Conference Review	3	0.76
Letter	2	0.51
Editorial	1	0.25
Total	395	100.00

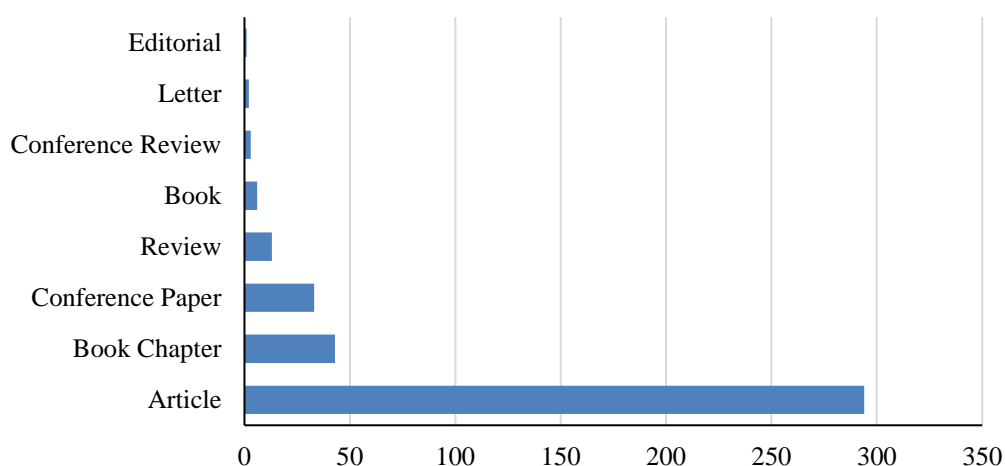


Figure 2. Total Publication for Document Type.

By analysing the data by source document type in Table 3 and Figure 3, this study also aims to pinpoint the locations where monetary policy documents are released. Table 3

demonstrates that with 312 publications from the journal (78.99%), followed by 40 books (10.13%), 26 conference proceeding publications (6.58%), and 17 book series (4.30%).

Table 3
Source Type

Source Type	Total Publications (TP)	Percentage (%)
Journal	312	78.99
Book	40	10.13
Conference Proceeding	26	6.58
Book Series	17	4.30
Total	395	100.00

■ Journal ■ Book ■ Conference Proceeding ■ Book Series

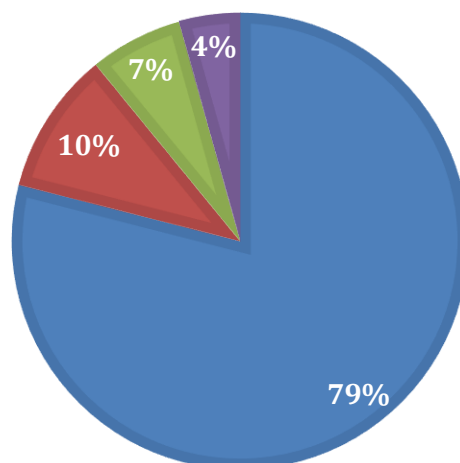


Figure 3. Total Publication for Source Type.

According to Table 4, the majority of the articles in this research field are written in English with 391 total publications covering 98.49% from all the documents. There are 3 other languages spoken include Malays with 1.01%, Persian and Russian are 0.25% equally. Thus, total found was 197 documents because of there are two of the publication's documents found within dual languages.

Table 4
Languages

Language	Total Publications (TP)*	Percentage (%)
English	391	98.49
Malay	4	1.01
Persian	1	0.25
Russian	1	0.25
Total	397	100

*There are few documents has been prepared in dual languages

The published documents in this study are then categorised depending on their topic matter, as shown in Figure 4. The majority of the research on poverty and Malaysia comes from the social sciences with 168 total publications (42.53%), 81 economics, econometrics and finance (20.51%), and environmental science and medicine has the same number of publications with 74 (18.73%). The business, management and accounting with 67 publications, and the computer science and arts and humanities has 46 and 40 publications, respectively. However, as shown in figure 4, there are other research subjects, such as agricultural and biological sciences, energy, engineering, earth and planetary sciences, mathematics, decision sciences and others that have also produced publications on the poverty issues. There three least publications documents were materials science with two publications (0.25%) then, chemistry and health professions with only one publication (0.25%).

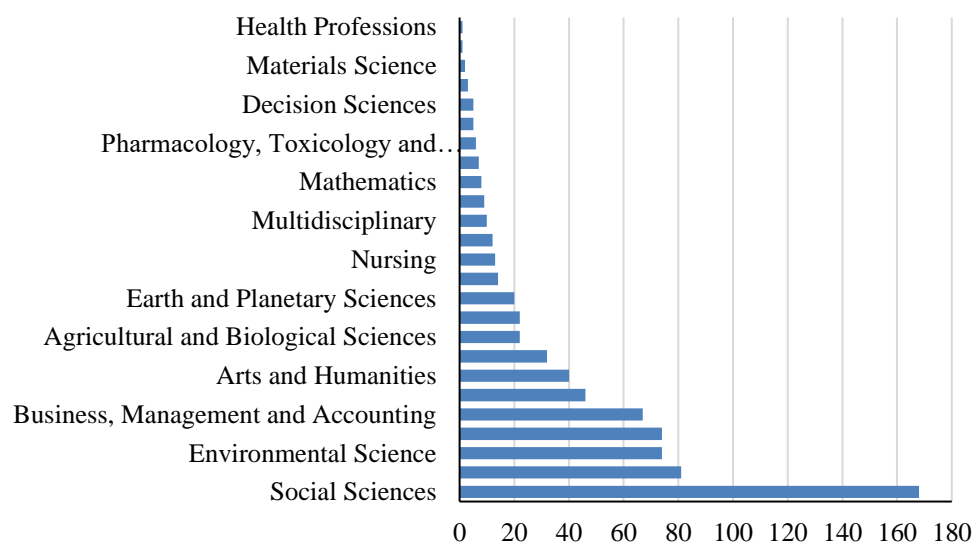


Figure 4. Total Publication for Subject Area.

Publication Trends

The distribution of the papers according to year of publication was examined in this study, as shown in Table 5 and Figure 5. This study only collected the data from Scopus database within six years from year 2018 until 2023. In recent years, there has been a gradual increase in the quantity of articles written. The most poverty and Malaysia related papers were published in 2019 which accounting for 77 total publications, and Table 6 also indicates that in the same year has the most total citation with 851, highest citation per year is 11.05, and the most average citations per cited publication is 16.06. On the other hand, the lowest publication years are 2021 and 2023 with 59 total publication (14.94%), however the impact of the publication between these years are difference. As year 2023 is the latest year, thus it is the lowest citation with only 27 citations, and also has the lowest h-index and g-index which is 3 for both of index.

Table 5

Year of Publication

Year	TP	Percentage (%)	NCP	TC	C/P	C/CP	h	g
2018	63	15.95	49	549	8.71	11.20	14	21
2019	77	19.49	53	851	11.05	16.06	14	28
2020	64	16.20	51	469	7.33	9.20	12	19
2021	59	14.94	40	336	5.69	8.40	9	17
2022	73	18.48	41	156	2.14	3.80	6	10
2023	59	14.94	15	27	0.46	1.80	3	3
Total	395	100.00	249	2388	-	-	-	-

“Notes: TP=total number of publications; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; and g=g-index”.

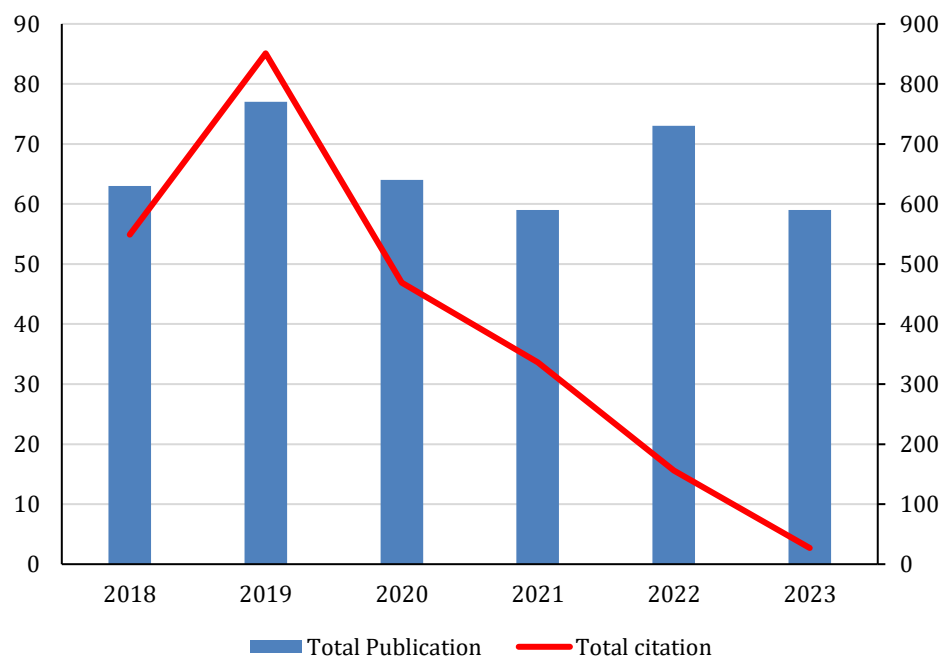


Figure 5. Total Publications and Citations by Year

Publications by Authors

In Table 6 reports that Al Mamun, A is the most productive author, followed by Siwar, C., with seven total citations and six citations respectively. Sulaiman, N and Ismail, R. is the third and fourth most productive author with the same numbers of total citations with Siwar, C., which is six citations.

Table 6

Most Productive Authors

Author's Name	Affiliation	Country	TP	Percentage (%)	NCP	TC	C/P	C/CP	h	g
Al Mamun, A.	UKM-Graduate School of Business	Malaysia	7	1.77	6	168	24.00	28.00	5	6
Siwar, C.	Universiti Kebangsaan Malaysia	Malaysia	6	1.52	6	35	5.83	5.83	3	5
Sulaiman, N.	Faculty of Medicine and Health Sciences	Malaysia	6	1.52	6	72	12.00	12.00	4	6
Ismail, R.	Universiti Kebangsaan Malaysia	Malaysia	5	1.27	1	4	0.80	4.00	1	2
Masud, M. M.	Universiti Malaya	Malaysia	5	1.27	5	52	10.40	10.40	3	5
Othman, A.	Universiti Malaya	Malaysia	5	1.27	3	33	6.60	11.00	3	5
Shahar, S.	Universiti Kebangsaan Malaysia	Malaysia	5	1.27	5	84	16.80	16.80	4	5
Solaymani, S.	SCION	New Zealand	5	1.27	5	25	5.00	5.00	3	5
Alam, M. M.	Universiti Utara Malaysia	Malaysia	4	1.01	2	7	1.75	3.50	2	2
Bakar, A. A.	Universiti Kebangsaan Malaysia	Malaysia	4	1.01	4	77	19.25	19.25	4	4

"Notes: TP=total number of publications; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; and g=g-index"

Publications by Institutions

Table 7 and Figure 6 indicate the institutions that have published the most documents relating to poverty in Malaysia, with a minimum of ten publications each. These institutions are among the most active. Every single country that was represented as an affiliation came from

Malaysia, and University Malaysia was the most prolific publisher out of all the other schools with 76 total publications (19.24%).

Table 7

Most Productive Institutions with Minimum of Ten Publications

Affiliation	Country	TP	Percentage (%)
Universiti Malaya	Malaysia	76	19.24
Universiti Kebangsaan Malaysia	Malaysia	49	12.41
Universiti Sains Malaysia	Malaysia	37	9.37
Universiti Teknologi MARA	Malaysia	36	9.11
Universiti Utara Malaysia	Malaysia	28	7.09
Universiti Putra Malaysia	Malaysia	28	7.09
Universiti Malaysia Terengganu	Malaysia	20	5.06
Kementerian Kesihatan Malaysia	Malaysia	19	4.81
Universiti Malaysia Kelantan	Malaysia	18	4.56
Universiti Sultan Zainal Abidin	Malaysia	10	2.53

Notes: TP=total number of publications

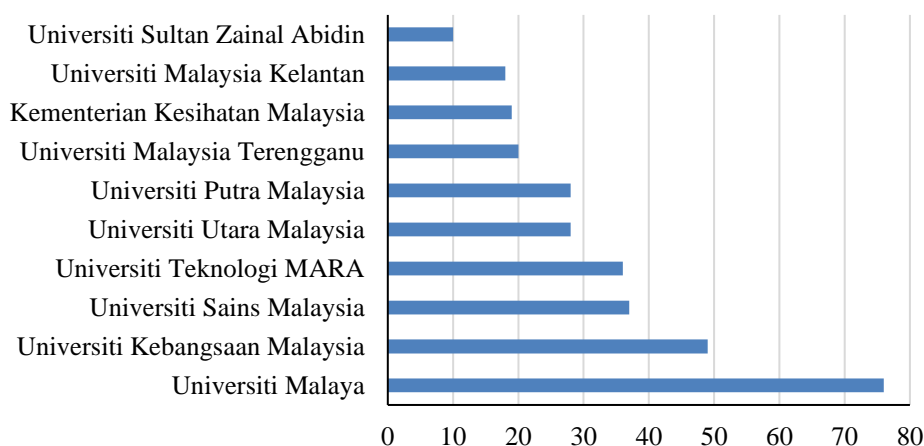


Figure 6. Total publication for productive Institutions

Publications by Countries

Table 8, the most contributed countries were Malaysia with 325 total publications (82.28%), followed by 31 publications by Indonesia (7.85), 27 publications by United States, and 23 United Kingdom (5.83%). These four countries have the numbers of total publication more than 20 compare to the others. The lowest total publication is four with 1.01% overall percentage and was contributed by Belgium, China, Japan and Taiwan.

Table 8

Top 20 Countries Contributed to the Publications

Country	TP	Percentage (%)
Malaysia	325	82.28
Indonesia	31	7.85
United States	27	6.84
United Kingdom	23	5.82
Bangladesh	15	3.80
Australia	14	3.54
Canada	9	2.28
India	9	2.28
Pakistan	9	2.28
Iran	7	1.77
Netherlands	7	1.77
Singapore	7	1.77
Nigeria	5	1.27
Saudi Arabia	5	1.27
South Africa	5	1.27
Thailand	5	1.27
Belgium	4	1.01
China	4	1.01
Japan	4	1.01
Taiwan	4	1.01

Notes: TP=total number of publications

Publications by Source Titles

Table 9 is the lists of top source names that produced four or more papers on the poverty and Malaysia. The IOP Conference Series Earth and Environmental Science, with a total of 13, contributed the most publications, then followed by BMC Public Health and Plos One.

Table 9

Most Active Source Titles

Source Title	TP	TC	Publisher	Cite Score	SJR 2022	SNIP 2022	h	g
IOP Conference Series Earth and Environmental Science	13	19	IOP Publishing	0.8	0.197	0.255	2	4
BMC Public Health	9	9	Springer Nature	6.1	1.307	1.661	8	9
Plos One	7	37	Public Library of Science	6.0	0.885	1.253	4	6
International Journal of Environmental Research and Public Health	6	13	Multidisciplinary Digital Publishing Institute (MDPI)	5.4	0.828	1.280	2	3
Lecture Notes in Networks and Systems	6	1	Springer Nature	0.7	0.151	0.190	1	1
Planning Malaysia	6	22	Malaysian Institute of Planners	1.3	0.249	0.757	3	4
Aip Conference Proceedings	5	2	American Institute of Physics	0.7	0.164	0.247	1	1
International Journal of Recent Technology and Engineering	5	NA	Blue Eyes Intelligence Engineering and Sciences Publication	NA	NA	NA	NA	NA
Sustainability Switzerland	5	36	Multidisciplinary Digital Publishing Institute (MDPI)	5.8	0.664	1.198	3	5
Dynamics Of Asian Development	4	1	Springer Nature	0.1	NA	NA	1	1

“Notes: TP=total number of publications; TC=total citations; Cite Score = average citations received per document published in the source title; SJR = SCImago Journal Rank measures weighted citations received by the source title; SNIP = source normalised impact per paper measures actual citations received relative to citations expected for the source title’s subject field; h=h-index; and g=g-index”.

Highly Cited Documents

According to the Scopus database, Table 12 is the lists of top 9 articles that have been mentioned the most times. Al Mamun et al. (2018) analyses the green consumption behaviors

among low-income households, accruing 116 citations, averaging 23.2 citations per year. This high citation rate underscores the growing academic and societal interest in understanding how economic constraints intersect with environmental decision-making. Filho et al. (2019) focus on urban climate change adaptation, receiving 102 citations at a rate of 25.5 per year, highlighting the urgency and relevance of research in urban resilience and poverty reduction in the face of climate change. Ayompe et al. (2021) offer insights into sustainable palm oil production, achieving an impressive 86 citations in a short span, with an annual citation rate of 43. This statistic reflects the critical importance of balancing agricultural practices with ecosystem and human well-being. Miyamoto (2020) links poverty reduction to sustainable forest conservation, with 47 citations and an annual rate of 15.67. This article's influence signals the significance of integrating socioeconomic strategies in environmental conservation efforts. Shahar et al. (2019) delve into the socioeconomic disparities faced by Malaysian older adults, receiving 41 citations at a rate of 10.25 per year, indicating a sustained interest in understanding the socio-economic dimensions of aging, particularly in different urban and rural contexts.

Table 10
Top 9 Highly Cited Articles

No.	Authors	Title	Cites	Cites per Year
1	Al Mamun et al. (2018)	"Intention and behavior towards green consumption among low-income households"	116	23.2
2	Filho et al. (2019)	"Assessing the impacts of climate change in cities and their adaptive capacity: Towards transformative approaches to climate change adaptation and poverty reduction in urban areas in a set of developing countries"	102	25.5
3	Ayompe et al. (2021)	"Towards sustainable palm oil production: The positive and negative impacts on ecosystem services and human wellbeing"	86	43
4	Miyamoto (2020)	"Poverty reduction saves forests sustainably: Lessons for deforestation policies"	47	15.67
5	Shahar et al. (2019)	"Factors associated with poor socioeconomic status among Malaysian older adults: An analysis according to urban and rural settings"	41	10.25
6	Jeyacheya and Hampton (2020)	"Wishful thinking or wise policy? Theorising tourism-led inclusive growth: Supply chains and host communities"	33	11
7	Sulaiman et al. (2021)	"A food insecurity systematic review: Experience from Malaysia"	31	15.5
8	Poh et al. (2019)	"Low socioeconomic status and severe obesity are linked to poor cognitive performance in Malaysian children"	30	7.5
9	Sani et al. (2018)	"Machine learning approach for Bottom 40 Percent Households (B40) poverty classification"	30	6

Note: some of the titles are multidimensional poverty

Top Keywords

The top two favoured terms accurately reflect the focus of the study. According to Table 13, Malaysia is the most popular term among authors, with 169 total publications, or 42.78% of the total. The next most popular term is "poverty," which has been used in 143 publications (36.20%) after "human," which has been mentioned in 86 publications (21.77%). There are

more keywords such as female, article, male, adult, and cross-sectional research that each have more than 30 total articles to their credit.

Table 13

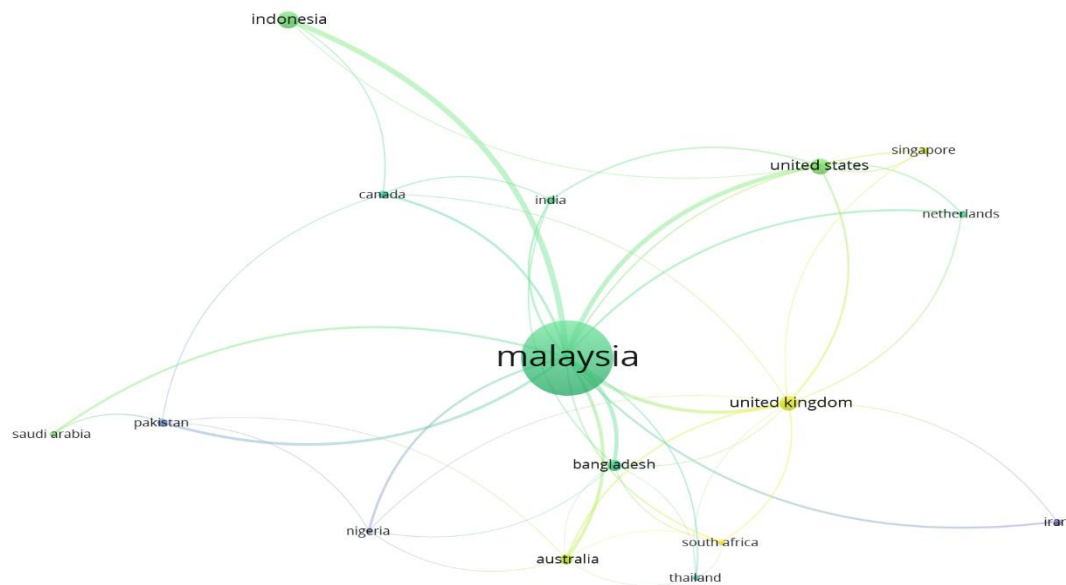
Top 10 Author's Keywords

Author Keywords	Total Publications (TP)	Percentage (%)
Malaysia	169	42.78
Poverty	143	36.20
Human	86	21.77
Female	61	15.44
Article	55	13.92
Male	53	13.42
Adult	47	11.90
Cross-sectional Study	35	8.86
Prevalence	26	6.58
Adolescent	24	6.08

Co-Authorship By Countries

Figure 7 illustrates the VOSviewer co-authorship analysis using the fractional counting, with a minimum of five documents per nation, and shows that out of the 69 countries associated with co-authorship to this poverty and Malaysia issue, 16 thresholds were discovered. Malaysia occurs in the middle of the six clusters and has the most variation, indicating that the majority of the authors are from Malaysia. Additionally, figure 7 makes it possible to reflect the time frames for 2019 (blue), 2020 (green), and 2021 (yellow). Therefore, this figure identified that Pakistan, Nigeria and Iran countries that the authors published within 2019. Green countries include Indonesia, Saudi Arabia, India, Canada, Bangladesh, Thailand, the United States, and the Netherlands. The latest publication by the authors from yellow colour, such as United Kingdom, Australia, South Africa, and Singapore.

Figure 7. Network visualisation map of the co-authorship by countries



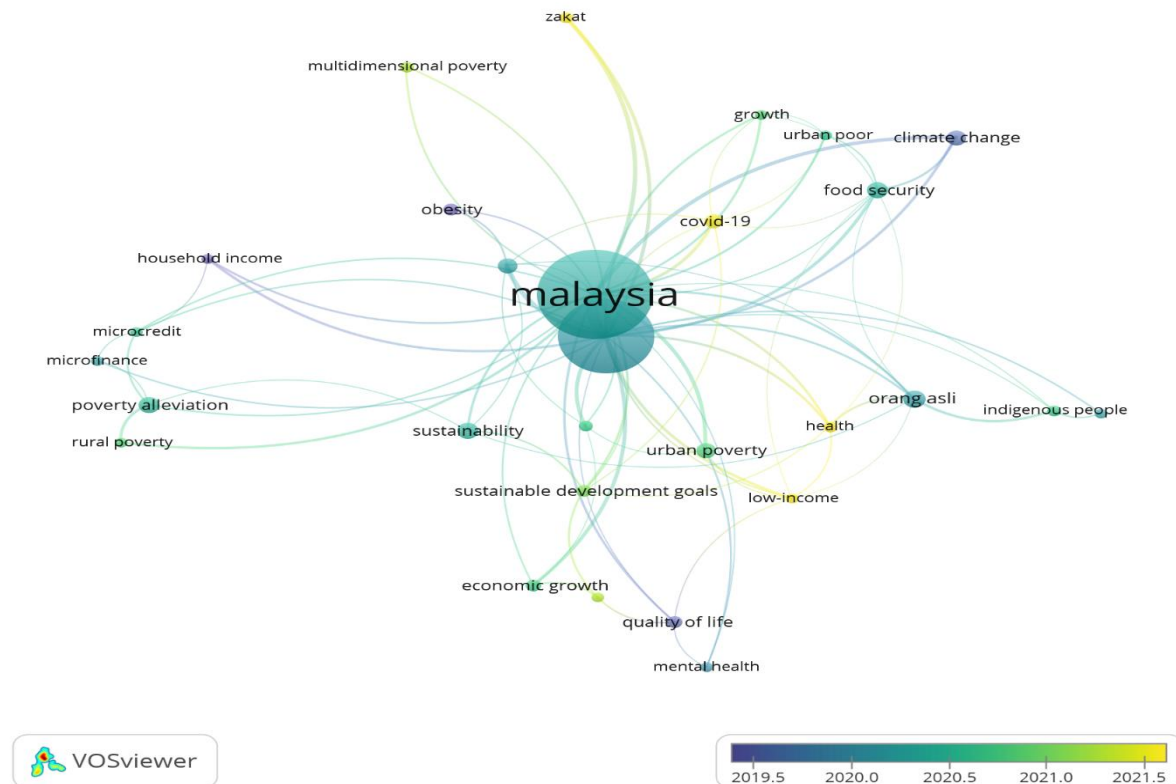
Co-Occurrence Analysis of Author's Keywords

The Figure 8, is the analysis of co-occurrence using the author's keywords using the fractional counting and five minimum keyword occurrences. There are 29 of keywords meet the threshold out of the 1169 keywords and there are eight clusters. The first cluster keyword; economic growth, entrepreneurial intentional, mental health, quality of life, sustainability, and sustainable development. The cluster 2 keywords; Climate change, Covid-19, Food security, growth, Malaysia and Urban Poor. The keywords from cluster 3; household income, microcredit, microfinance, poverty alleviation, and rural poverty. The cluster 4 keywords; development, health, indigenous people and "orang asli". The cluster 5 keywords; income inequality, low-income and urban poverty. Cluster 6 and 7 has only 2 keyword equality; multidimensional poverty and poverty, then for cluster 7 keywords are income and obesity. Lastly, the cluster 8 only involving zakat.

The cluster can be classified to different type of poverty. The cluster 6 is basic term of this research, which is the poverty and extract from the poverty has multidimensional poverty. The economy(wealth) type of poverty is shows in cluster 3, 5, 7, and 8. The mixture of poverty was the first cluster involving cluster of economy(wealth), health, quality of life and sustainable. The poverty in term of the environment and food security is define in the cluster 2, and the cluster 4 classified as the poverty from the views of health and social connections and relationships.

For figure 8 also shows that, household income, climate change, obesity and quality of life is the keyword been used in publication within 2019. On the other hand, the keywords such as multidimensional poverty, health, covid-19, economic growth, low-income and zakat is the latest keywords and published within middle of 2021.

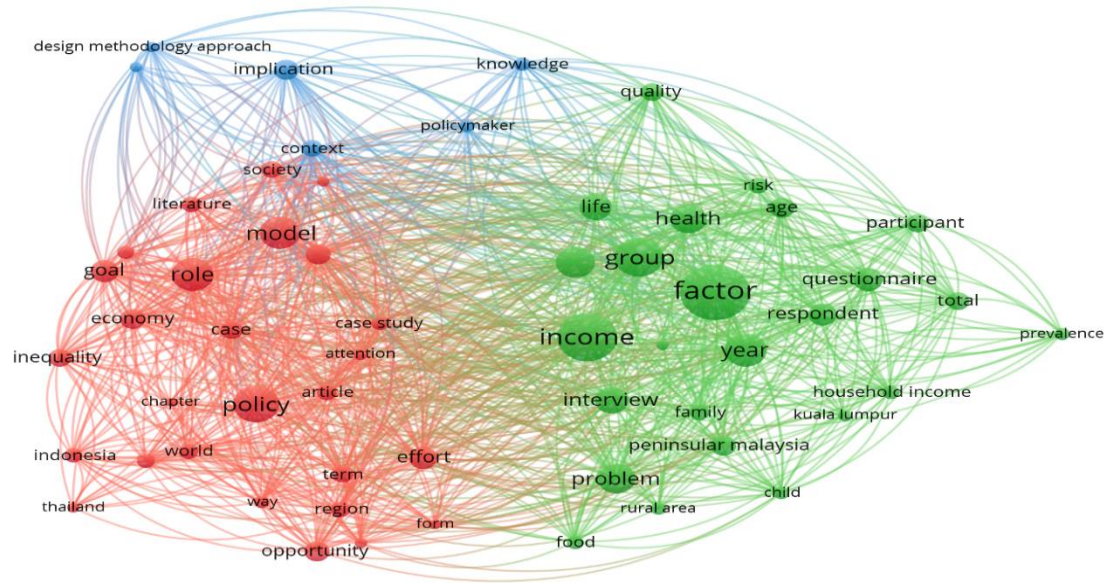
Figure 8. Network visualisation of the author's keywords



Co-occurrence analysis of terms based on title and abstract

The figure 9 is used the binary counting, with the 20 minimum numbers of occurrences has found that there are 96 meet the threshold within 10377 terms, then the final numbers of terms to be selected is 58. There are three main colours (clusters) in Figure 9, such as red, green and blue. The red cluster is the dominant co-occurrence between the analysis of author's keywords using the title and abstract. There are 27 words extraction; article, attention, case, case study, Chapter, economic growth, economy, effort, employment, evidence, form, goal, Indonesia, inequality, literature, model, opportunity, policy, poverty alleviation, region, research, role, society, term, Thailand, way, and world. The green cluster word extractions; age, child, factor, family, food, group, health, household income, income, interview, Kuala Lumpur, life, majority, participant, peninsular Malaysia, population, prevalence, problem, quality, questionnaire, respondent, risk, rural area, and total. The last cluster is blue with only six words excreted; context, design methodology approach, implication, knowledge originality value and policy marker.

Figure 9. Network visualisation of Co-occurrence analysis of terms based on title and abstract



Discussion

The discussion part is where all research objectives of this study will be extracted from the results.

RQ I. What is the Publication Trend in this Research Field?

Based on Table 5 and Figure 5, the trend of poverty and Malaysia for the last six was not consistent and the number of publications is in between 59 to 77 publications. The record shows the most publications year is in 2019 with the percentage of 19.49% from the overall publications. Followed by 73 publications in 2022, then 64 publications in 2020. The least publications years was in 2021 and 2023 with only 59 documents published. The impact of total publication can be identify using h-index and g-index. It is shows that h-index was 13 is the highest in year 2018 and 2019, however as in 2019 has more total publications and the highest total citation, reflex the g-index is the highest at 28 in 2019. Furthermore, in Figure 5 shows the inconsistent trend of total publication and did not have huge gap of numbers between the years, however the trend for citation shows downward after 2019 until 2023.

RQ II. Which Are The Influential Journals And Research Organizations Dominating This Research Field?

The most influential journal is referred to Table 9. The most publication was IOP Conference Series Earth and Environmental Science under IOP publishing with 13 publications, and 19 total citations. However, the cite score for this journal was not very impressive with only 0.8. there are others journals that has higher cite score such as BMC Public Health with 6.1, Plos One (6.0), sustainability Switzerland (5.8) and more. The most total citation among the journal is Plos One with 37 citations, followed by the sustainability Switzerland and Planning Malaysia. The most active institutions to published document related to poverty and Malaysia with minimum of ten publications is shows in Table 7. All the affiliation countries were from

Malaysia, and University Malaysia shows the dominant among all the institutions with 76 total publication (19.24%), followed by Universiti Kebangsaan Malaysia with 49 publications (12.41), and third is the Universiti Kebangsaan Malaysia with 37 publications. The bottom three institutes were Kementerian Kesihatan Malaysia (19 publications), Universiti Malaysia Kelantan (18 publications) and Universiti Sultan Zainal Abidin (10 publications).

RQ III. What is the Top-Cited Research Publications in this Research Field?

Based on the table 10, the most cited article for poverty in Malaysia is published by Al Mamum et al. (2018) with the title; "Intention and behavior towards green consumption among low-income households" has so far gotten the most citations with 116 citations or an average 23.2 citations per year. The study by Al Mamum et al. (2018) addresses the issues of climate change through wise management of resources and environmental conservation. This study also poverty in term multidimensional poverty specially in area of the sustainability, environment area and economy. This study was focus in Malaysia (Peninsular Malaysia) with involved the cross-sectional that relied on 380 respondents of the low-income household. Finding reflex the eco-literacy and self-efficacy had a favourable effect on attitude towards green products among respondents, which also investigated low-income households' intentions and behaviours with regard to green consumption.

RQ IV. What is the future research's direction in this research field?

Referred to the figure 8, the keywords such as multidimensional poverty, health, covid-19, economic growth, low-income and zakat is the latest keywords and published within middle of 2021. Then, in Table 10 indicate the most cited journal was "Intention and behavior towards green consumption among low-income households" by Al Mamun et al. (2018) is in the area of multidimensional poverty specially in area of the sustainability, environment area and economy. Therefore, this is the keywords that most like to be the research direction in future research especially the multidimension poverty in health after COVID-19 issues, poverty in term of sustainable and economical area.

Conclusion

This bibliometric study focuses on the "poverty" and "Malaysia" keywords in the Scopus database within the period of 2018 until 2023. There are 395 total documents extracted in this study and has accomplished to identify all the research questions, and managed to conduct many analyses such as the yearly trend of publications, the most influence institution, the most cited author, type of documents, the most cited journals within the same research subject and many more. The most published journal with the keywords "poverty" and "Malaysia" was IOP Conference Series Earth. This research concludes most of the documents published were in English languages, and most type of documents is an article journal. The paper by Al Mamum et al. (2018) titled "Intention and Behaviour towards green consumption among low-income households" has received 116 citations and an average of 23.2 citations per year. As the others studies, this study also having a limitation. The focus of this research subject are "poverty" and "Malaysia" and only less than a decade of years. Moreover, there are still a lot of development countries that has more crucial poverty issues in multidimensional type of poverty. Thus, there is a gap for further study involving a lot of development countries.

Conflicts of Interest

The authors declare no conflict of interest.

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