

RESEARCH TRENDS IN ETHICAL INVESTMENT: A BIBLIOMETRIC ANALYSIS

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Abstract *The topic of ethical investment is gaining the attention of not only investors but also academicians and researchers. Ethical investment is a strategy where an investor considers ethical principles in addition to good returns while filtering the investment options. An increased demand for ethical investments will lead to changes in the way companies do business and will also tighten the hold of investors on business. Since this is an important aspect for investors, businesses, policymakers and academicians, there have been a large number of publications, seminars and conferences on the topic. Researchers have attempted to correlate ethical investment with individual products like gilts and pension funds; with individual disciplines like economics, ecology and law; with individual industries like drugs, oil and gas industry and many more. Also many publications have been registered with regard to 'whys', 'how's', 'ambiguities', 'negotiations', 'analytics', 'benefits' and the scope and success of ethical investments. To put this research in ethical investments at one place and present a concise and precise picture of research on ethical investment, the present study conducts a bibliometric analysis of the literature on ethical investment to reveal research trends in this regard. This study provides a comprehensive overview of the state, trends and potential areas of research in the field of ethical investment as a whole. The data for the study has been fetched from the Scopus database. Performance analysis has been conducted in order to gain insights into the research productivity and impact of publications. Performance analysis covers bibliometric indicators and metrics such as volume of publication, active countries, prolific authors, collaborative research patterns and citation counts to evaluate the research productivity and impact of individuals, research groups, or institutions. Findings reveal a rising trend in the volume of publications.*

Keywords *Bibliometric Analysis, Collaborative Research, Citation Analysis*

INTRODUCTION

The term 'investment' ever since its inception has been related to another term, 'profitable'. Investors, corporates, rating agencies, academicians and researchers have talked a lot about profitable investments. The interest in 'ethical investment' has grown over the last decade only. It is an approach whereby investors tend to invest in such companies which are aligned with ethical values, create products which don't harm the planet and are high on fulfilling their responsibility towards all stakeholders. Initially, investors used to identify such companies on their own, but slowly the finer methods were evolved, and nowadays rating companies are using positive or negative screening methods to identify ethical companies. With these changes, many research areas in this field have cropped up, and many research papers have been published.

To consolidate the research on ethical investment and present the topic as a scientific discipline, it is crucial to compile its historical development and recent contributions in this field. Therefore, a study of the literature on the topic becomes vital. Many such studies have been conducted, but most of them are limited to a particular aspect within ethical investment. For instance, Marzuki et al. (2023) conducted a bibliographic study on influential aspects of

ethical investing on portfolio and financial performance, analysing the environmental factors that influence their creation and development. Lemonakis et al. (2020) have published bibliometric study on the topic to identify the leading journal in the field. Rahman et al. (2020) explored the socially responsible investment in Sukuk literature. Chalissery et al. (2022) conducted a bibliometric research on socially responsible investment but limited their research to articles and reviews, excluding all other document types.

This study aims to provide an all-inclusive overview of the state, trends and probable areas of research in the field of ethical investment as a whole. What sets this study apart from others is its extended time coverage, spanning from 1989 to 2023, during which the majority of research on the topic has been conducted. Additionally, this study focuses exclusively on publications with the term "ethical investment" in their titles and abstracts, ensuring a focused and thorough analysis of the literature.

Besides the introduction in Section 1, the next Section 2 provides an overview of the database, search metrics and methods of analysis used in this study. Section 3 presents the study's findings, and Section 4 discusses the study's conclusions, limitations and potential research avenues in the field of ethical investment.

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METHODOLOGY

Database

The Scopus database has been used to retrieve the publications for the study. Scopus is a wide-ranging database and provides extensive search options, like searches on the basis of titles, abstracts, keywords, names of journals, author names, or affiliations. Therefore, it is easy for the researcher to use it and export data from it to other programs like MS Word or Excel.

Search Metrics

The results of any bibliometric study depend upon the retrieval of relevant and sufficient data, which further depends upon decisions regarding the search metrics or search term. Selecting appropriate search terms is very crucial because it not only gives the right direction to the study being undertaken but also helps extract a sufficient and large number of publications from the database. Two options were considered 'socially responsible investment' or 'ethical investment' and out of both, 'ethical investment' was finalised. At first attempt, the term 'ethical investment' was searched in the title of the publication, and a total of 78 publications were retrieved, but a comprehensive bibliometric study cannot be carried out with this number. Hence, the search metrics were extended to the 'title', 'abstract' and 'keywords' of publications.

The data was retrieved on Jan 23, 2024, and a total 297 publications were retrieved over a period of 34 years, from 1989 to 2023. The data was then exported to a Microsoft Excel sheet. Upon sorting by author name and then by author affiliation, it was found that 07 publications had either 'No Author Name' or 'Author Affiliations Unavailable' and were subsequently removed from the dataset, resulting in a total count of 290 publications. Therefore, all bibliometric indicators were analysed based on these 290 publications.

Table 1: A Synopsis of Data Source and Sample Selection Methodology

Search Database	Scopus
Search Words	Ethical Investment
Search Places	Title or Abstract or Keywords of the Publication
Search Period	1989 to 2023 (31 st December)
Publications Found	297
Publications Deleted	07
Final Number of Publications Analysed	290

Methods

The most commonly used method of analysis, in bibliometric studies is performance analysis and the same has been used in the study to get a comprehensive overview of developments in the field of ethical investment. Analysis has been done from the perspectives of the number of publications, document types, most prolific authors, productive countries, popular journals exhibiting substantial publication output, highly cited papers and collaborative research. Descriptive and graphical presentations have been used for better reflection of findings.

FINDINGS

Descriptive Analysis

The analysis of data reveals that a total 290 of publications have been authored by 550 individuals. The average number of publications per author is 0.53, with a publication rate of 8.53 per year. Among the publications, 97 are single-authored, while 193 are multi-authored. The study encompasses research contributions from 47 different countries, and 54.48% of the publications are from European countries. The topic of study reflects the global perspective on research involving publications in 200 journals or books or conference papers. The analysed 290 publications received a total of 8883 citations, the average being 30.63 citations per publication, indicating the impact and influence of the research within the field.

Table 2: Descriptive Analysis

Criteria	Quantity
Total Publications	290
Authors	550
Average publications per author	0.53
Publication per year	8.53
Single-authored publications	97
Multi-authored publications	193
Countries involved	47
Journals/Books/Conference Papers involved	200
Total Citations	8883
Average citations per publication	30.63

Performance Analysis

Volume of Publications

Table 3 clearly reflects that there is an increase in the number of articles published per year, suggesting researchers are

publishing more in the field of ethical investment. The highest publication output has been reported in 2023, with 24 papers published, followed by 20 papers in 2022. The table reflects that more than 51.38% of the publications (149 publications) have been registered in the last 10 years (2014 to 2023) and the remaining 48.62% in the remaining 24 years. Fig. 1 presents a graphic glance at the rising trend of publications on the topic.

Table 3: Volume of Publications

Year	Number of Publications	Year	Number of Publications
1989	1	2007	4
1990	2	2008	9
1991	1	2009	10
1992	3	2010	15

Year	Number of Publications	Year	Number of Publications
1994	2	2011	15
1995	1	2012	4
1996	2	2013	15
1997	3	2014	16
1998	2	2015	13
1999	4	2016	13
2000	7	2017	11
2001	7	2018	8
2002	3	2019	10
2003	7	2020	18
2004	9	2021	16
2005	6	2022	20
2006	9	2023	24

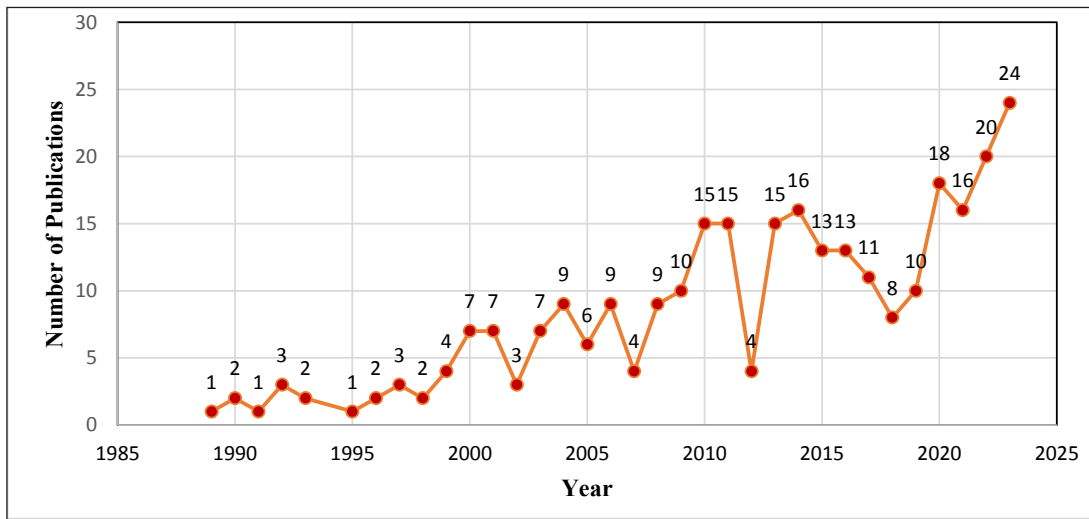


Fig. 1: Volume of Publications

Publication Type

Table 4 and Fig. 2 depict the type of documents published. It has been observed that the majority of the publications are in

the form of articles (74.48%). This indicates that researchers prefer to write the articles in this domain. Furthermore, a major percentage of the publications consists of book chapters (12.41%), followed by reviews (7.24%).

Table 4: Publication Type

Document Type	Number	Percentile
Article	216	74.48
Book chapter	36	12.41
Review	21	7.24
Conference paper	8	2.76
Book	5	1.72
Letter	2	0.68
Short Survey	1	0.34
Note	1	0.34
Total	290	100

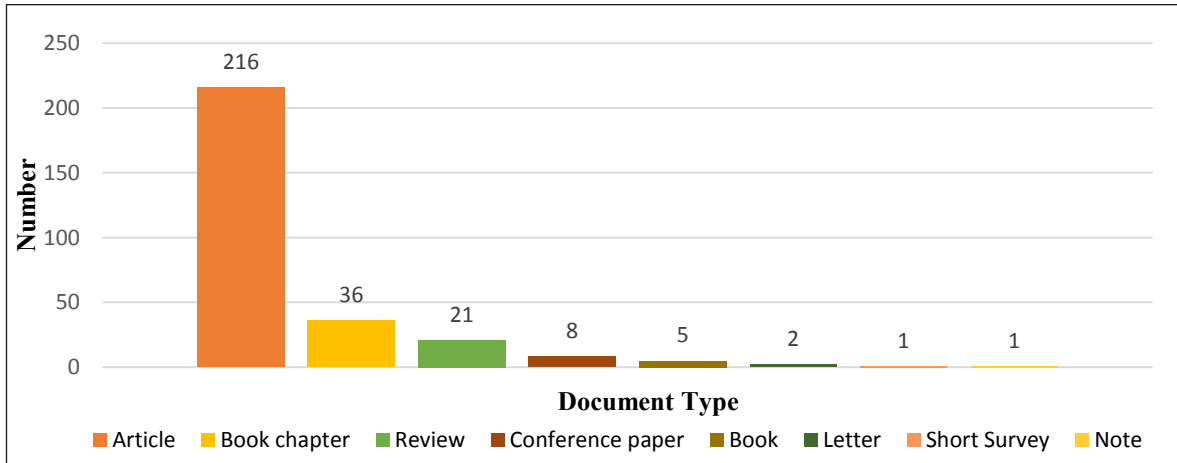


Fig. 2: Publication Type

Most Influential Journals

Numerous journals have published research on ethical investment. While selecting a journal for publication, authors consider two things: the relevance of the journal to the subject matter and the readership base of the journal. Analysis reveals that a total of 290 publications have been published in 200 journals, and 163 out of 200 have published only one article each, and 22 have published two articles each.

Table 5 and Fig. 3 offer an overview of the top five influential journals publishing the metrics. ‘Journal of Business Ethics’ with 28 publications leads the line, followed by ‘Journal of Islamic Accounting and Business Research’ and ‘Sustainability (Switzerland)’ with 7 publications each. ‘Accounting, Auditing & Accountability Journal’ and ‘Research in International Business and Finance’ have

5 publications each on the topic. It is noteworthy that all five journals have collectively published 17.91% of total publications.

Table 5: Most Influential Journals

Name of the Journal/Conference	Number of Publications	Percentage
Journal of Business Ethics	28	9.65%
Journal of Islamic Accounting and Business Research	7	2.41%
Sustainability (Switzerland)	7	2.41%
Accounting, Auditing & Accountability Journal	5	1.72%
Research in International Business and Finance	5	1.72%
Total	52	17.91%

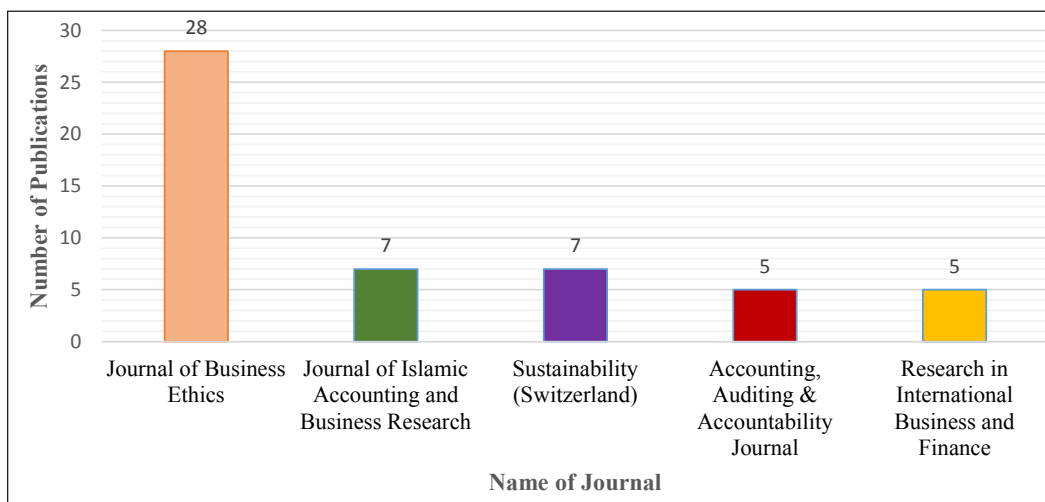


Fig. 3: Most Influential Journals

Most Productive Countries

Table 6 and Fig. 4 highlight the participation of authors from various countries in the publication on the topic. The data reveals contributions from a total of 47 countries. The United Kingdom leads with 51 publications, which represents 17.59% of the total. Australian authors have also made substantial contributions, amounting to 11.03% of the overall publications. The United States follows closely with 24 papers, contributing 8.28% to the total.

In addition to these countries, like France, Spain, Germany, Canada, India and Malaysia have also made significant contributions to the field of ethical investment literature.

Table 6: Most Productive Countries

Name of the Country	Number of Publications	Percentage of Publications*
United Kingdom	51	17.59%
Australia	32	11.03%
United States	24	8.28%
France	19	6.55%
Spain	19	6.55%
Germany	14	4.82%
Canada	12	4.14%
India	12	4.14%
Malaysia	10	3.45%

*Percentage of Publications have been calculated with reference to total number (290) of publications and country of publication has been considered keeping in view affiliation of first author.

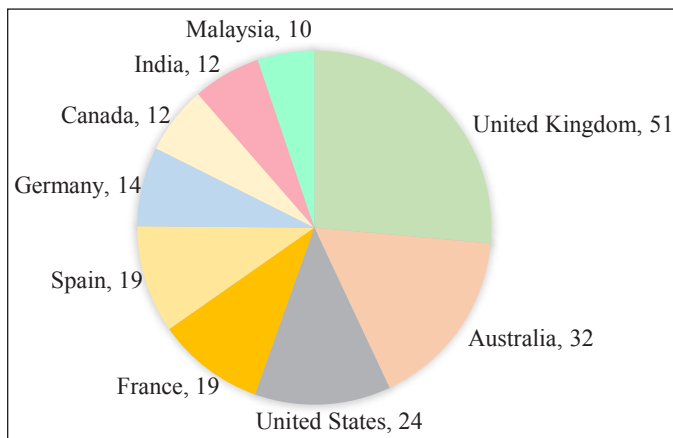


Fig. 4: Most Productive Countries

Most Prolific Authors

The results presented in Table 7 reveal that the total of 550 authors have contributed to the ethical investment literature. The most prolific author is Lewis A. from the United Kingdom, with 7 publications and 442 citations against those publications. Jawadi F. and Jawadi N. from France have authored 5 publications, followed by Mackenzie C. from United Kingdom and Sandberg J. from Sweden, who have 4 publications each. Data analysis reflects 111 out of 550 authors are from the United Kingdom, and 483 authors have contributed by just a single publication each, reflecting that research in the field of ethical investment is still at a nascent stage.

Table 7: Most Prolific Authors

Sr. No.	Name of Author	Author Affiliation	Number of Publications
1	Lewis A.	United Kingdom	7
2	Jawadi F.	France	5
3	Jawadi N.	France	5
4	Mackenzie C.	United Kingdom	4
5	Sandberg J.	Sweden	4

Collaborative Contribution

Table 8 highlights the collaborative contribution in terms of the number of authors involved in each publication. Out of a total of 200 publications, 97 have been authored by a single author, indicating individual contributions. However, the majority of the publications reflect collaborative research efforts. Specifically, 85 publications involve two authors, 70 involve three authors and 22 involve four authors. Collaborative studies not only enhance the learning experience but also receive more citations and funding. Data analysis reflects that in cases of collaborative research, authors tend to collaborate with other authors in the same country. Out of 193 co-authored papers, 134 papers have authors from the same countries. In the current study, 8 out of the 10 highly cited papers are the result of collaborative efforts, further supporting this claim. It has also been observed that as the number of authors in each publication increases, the collaboration goes beyond boundaries. In the present study, in 2-author publications, 70 out of 85 (82.35%) are same country collaborations, whereas in 3-author publications, 46 are same country and 24 are different country collaborative research. Further in

percentage of same country collaborative research declines to 50% (out of 22 publications, 11 are same country and 11 are different countries) and in 5-author cases, the percentage has further reduced to 42.85%.

Table 8: Collaborative Contributions

No of Authors Per Publication	Number of Publications	Same Country Author Collaboration	Different Country Collaboration	% of same Country Author Collaboration	% of Different Country Collaboration
1	97		-	-	-
2	85	70	15	82.35%	17.65%
3	70	46	24	65.71%	34.29%
4	22	11	11	50%	50%
5	14	6	8	42.85%	57.15%
6	2	1	1	50%	50%

Citation Analysis

Citation analysis provides insights into the impact of a publication by measuring the number of times it has been referenced by other authors in their publications. Out of a total of 290 papers, 229 papers have received citations, amounting to a cumulative count of 8883 citations.

Table 9 reveals that a small fraction, specifically 2 papers (0.68%), have a total citation count of 1156 (13.01%). Each paper has being cited by more than 500 times. Out of the total,

3 paper publications have received 1063 (11.97%) citations, but there are 99 papers (34.14%) which have been cited less than 10 times. These papers collectively contribute to a total of 465 citations (5.23%), highlighting the varying degrees of impact and recognition in the field of ethical investment. The study also reflects that collaborative research receives more citations, which are evident from the fact that out of the top 21 highly cited papers (with more than 100 citations per publication), 16 are co-authored. Also, out of 62 papers not receiving any citation, 30 are single authored, which further supports the claim.

Table 9: Citation Analysis

Number of Times a Paper Cited	Number of Papers	Percentage of Papers	Total Citations	Percentage of Citations
>500	2	0.69	1156	13.01
>200 ≤ 500	3	1.03	1063	11.97
>100 ≤ 200	16	5.52	2067	23.27
>50 ≤ 100	30	10.34	2173	24.46
>10 ≤ 50	79	27.24	1959	22.05
≤ 10	99	34.14	465	5.23
0	61	21.03	-	-
Total	290	100	8883	100

Table 10: Highly Cited Papers in Ethical Investment Literature

Sr. No.	Title	Authors	Citation Count
1	‘International evidence on ethical mutual fund performance and investment style’	‘Bauer R.; Koedijk K.; Otten R.’	590
2	‘The ethical, social and environmental reporting-performance portrayal gap’	‘Adams C.A.’	566
3	‘Corporate social responsibility in the banking industry: Motives and financial performance’	‘Wu M.-W.; Shen C.-H.’	436
4	‘The maturing of socially responsible investment: A review of the developing link with corporate social responsibility’	‘Sparkes R.; Cowton C.J.’	416
5	‘The heterogeneity of socially responsible investment’	‘Sandberg J.; Juravle C.; Hedesström T.M.; Hamilton I.’	211

Sr. No.	Title	Authors	Citation Count
6	'Ethical investing in Australia: Is there a financial penalty?'	'Bauer R.; Otten R.; Rad A.T.'	163
7	'The Financial Performance of Ethical Investment Funds'	'Mallin C.A.; Briston R.J.'	159
8	'Financial markets: A tool for social responsibility?'	'Haigh M.; Hazelton J.'	153
9	'Keeping ethical investment ethical: Regulatory issues for investing for sustainability'	'Richardson B.J.'	151
10	'Morals, money, ethical investing and economic psychology'	'Lewis A.; Mackenzie C.'	141

Table 10 reveals highly cited papers in ethical investment literature. Paper titled "International evidence on ethical mutual fund performance and investment style" has received 590 citations and another noteworthy paper titled "The ethical, social, and environmental reporting-performance portrayal gap" has obtained 566 citations.

DISCUSSION

The study discusses in detail about the rise in volume of research publications over the years. It has also explored the popular journals in the field and the most active countries and authors. It has thrown light on citations of publications. But the real success arises when the findings of the research publications are appropriately utilised for the benefit of all the stakeholders. Ethical investment advisors should help investors in identifying suitable ethical investment options and also guide them about the complexities of ethical investing. The corporate sector should do reasonable trade-offs between ethics and returns, and regulators should also create regulations for the same. The field of ethical investment is at a nascent stage, and there are many issues like limited availability of ethical investment options, transparency issues, and varied views with regard to the meaning of ethical investments. But under the panorama of advanced technology and global collaborations, the issues seem to be addressed in coming years. Researchers have already written on these topics, and the findings and conclusions of these will be helpful to a great extent.

CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

Research on ethical investment has witnessed a significant increase worldwide, reflecting the importance of the topic. The present study uncovers the research trends in the topic by conducting the bibliometric analysis of the available literature. The findings indicate that over a span of 34 years, there have been 290 documents authored by 550 individuals, which have been published across 200 journals. The volume of publications has shown a rising trend, with the highest number of publications (24) recorded in the year 2023. The majority of publications (78.48%) are in the form of articles.

The journal named Journal of Business Ethics has the highest number (28) of publications.

The authors from the United States have contributed the maximum number of publications (17.59%) on the subject, followed by Australia with 11.03% publications. The top active authors in terms of publications are Lewis A. from the UK and Jawadi F. and Jawadi N. from France. Out of the 550 authors involved in all the publications, 483 authors have authored only one publication each. While 97 out of the 290 publications have been published by a single author, the majority of publications reflect collaborative research work.

Out of the 290 papers, 229 have received citations, amounting to a total count of 8883 citations. A paper titled "International evidence on ethical mutual fund performance and investment style" authored by Bauer R., Koedijk K., and Otten R. published in the Journal of Banking and Finance has received the highest citations, amounting to 590. Although the present study will contribute significantly to the literature, the study contributes yet has a few limitations. First limitation is that it uses only published literature and overlooks unpublished ones, which may introduce publication bias. Secondly, the study focuses on quantitative data, such as publication and citation counts. Future research could adopt a mixed-methods approach, combining bibliometric analysis with content analysis to gain a deeper understanding of the subject. The third limitation is that the study considers only those publications which have the words 'ethical investment' in the title, abstract and keywords, restricting the scope of the study to fewer publications. Future researchers can expand the search metrics to text also and explore more publications. Overall, future research on the topic of bibliometric should strive for a comprehensive and inclusive approach.

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