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**Determinants of Financial Planning for Retirement:
A bibliometric analysis**

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Abstract

Many countries face the challenge of providing an adequate retirement income for their aging population. Therefore, personal retirement provision is becoming an important issue. The purpose of this study is to conduct a systematic review of existing research on the determinants of financial planning for retirement (FPR). Using bibliometric analysis, 107 studies were included to examine the most recent trend. The results suggest that concepts such as income and psychology are issues that require further investigation. The findings shed light for future studies so that more studies can be done in countries with different cultures to gain deeper insights.

Keywords: financial planning for retirement; bibliometric analysis; determinants

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1.0 Introduction

Retirement is an extended period of life when individuals permanently leave the workforce (Qin, 2021). When people retire, they spend the money they have saved or the money that they receive from the pension system. Having enough money to maintain one's desired standard of living after retirement, relative to the length of working life, is crucial to successful retirement (Hatcher, 2003). According to Topa et al. (2018), financial planning for retirement (FPR) refers to a set of activities undertaken to accumulate sufficient wealth to meet the financial needs of people in the post-retirement phase of life. Research shows that financial planning for retirement helps retirees make a smooth transition into their post-retirement life (Noone et al., 2009).

He et al. (2016) found that by 2050, 17% of the global population will be over 65 years old. Especially in developed countries, the aging population has increased government public welfare spending, while working-age taxpayers are constantly decreasing, which has put considerable pressure on the government (Ntalianis & Wise, 2011). More individuals are required to take on more responsibility for their retirement life. To sustain living standards after retirement, the relative significance of personal retirement savings will take on

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additional importance (Wu et al., 2017). However, people are not particularly good at saving for retirement as Demirgüç-Kunt et al. (2016) pointed out that only 24.8% of individuals (globally) save for their old age. If personal financial security for retirement does not improve, the stress of the pension fund system will become even more serious. Additionally, insufficient retirement savings will cause retirees to lose the quality of lifestyle in post-retirement life. Financial security after retirement, which means FPR, is becoming a serious issue in many developed and developing countries (Henkens, 2022; Yeung & Lee, 2022). As such, to promote retirement savings, one of the preconditions is to figure out what determinants make individuals less willing to financially plan for retirement and, in turn, save less for retirement.

A systematic review of the literature is essential to identifying research on the determinants of financial planning for retirement. The innovation of this study is therefore to systematically examine the determinants of financial planning for retirement using bibliometric analysis methods. Based on bibliometric analysis, this study aims to determine: (1) the current trend of literature publication (2) the most influential journals, countries, institutions, authors, and articles on the determinants of financial planning for retirement (3) the current topics and keywords in the research area to guide the future researchers who will conduct the analysis in the topic of financial planning for retirement.

This study is divided into six sections: Introduction, literature review, data and methods, analysis, discussion, and conclusion. In the introductory part, the research questions were proposed against the background of the study. Gaps that need to be filled are discussed in the literature review part. The Data and Methods section mainly presents the process of extracting data from the database in preparation for bibliometric analysis. Analysis and discussion were supported by publication year, country, publication and institution analysis, most cited articles, and keyword analysis. Finally, the research results, limitations, and recommendations for future researchers are summarized in the concluding section.

2.0 Literature Review

There are indeed some systematic literature reviews that have focused on retirement planning (Kerry, 2018; Ingale & Paluri, 2023; Pavia & Grima, 2019), but not specifically on the financial part. Some literature reviews on financial planning for retirement have mostly been limited to determinant scopes (Rameli & Marimuthu, 2018; Pfau, 2018). Further, except for the study by Tomar et al. (2021), there has been a lack of systematic summarization of comprehensive knowledge related to financial planning for retirement. Even in the study of Tomar et al. (2021), some personality traits and psychological constructs were not emphasized. The present study attempts to address this shortcoming by systematically analyzing the extant literature on the determinants of financial planning for retirement.

3.0 Data Collection and Method

Bibliometric analysis is a tool that can determine current trends and popular topics in literature (Castriotta et al., 2019) which can provide insights for researchers' in-depth research by analyzing citations, geographical distribution, and word frequency in specific research fields. Therefore, this study is suitable for bibliometric analysis.

Scopus is selected as the database of systematic review in this study. Since retirement financial planning includes retirement planning behavior and savings tendencies, to ensure coverage of all aspects of literature, article titles, abstracts, or keywords are set to "effect" OR "factors" OR "influence" OR "determinants" AND "savings" AND "retirement" AND "plan" OR "well-being" in the search. The obtained results are further screened based on various exclusion and limit criteria. Firstly, the results exclude conference papers, book chapters, and conferences. Further, the subject area is limited to economics, social science, management, and psychology. Accordingly, 107 related articles were selected from 1970 until 2023. These results are exported and stored in ". CSV" format for bibliometric analysis. The bibliometric analysis of this study was mainly conducted using VOS Viewer software (Van Eck & Waltman, 2010), which allowed us to visualize different networks generated by co-word analysis.

4.0 Data Analysis and Discussion

This section first conducted a descriptive analysis of 107 articles, including year, country, journal, contributing author, most cited article, and affiliated institutions, to determine the current trends in FPR determinants research.

4.1 Number of Publications

Analyzing the number of publications published year-on-year can help estimate research trends in specific research areas. Figure 1 indicates a year-on-year distribution of studies from 1970 to 2023. By comparing the number of publications per year, it can be found that after 2018, the number of research publications has significantly increased, indicating that the research scope of FPR drivers is constantly expanding. This trend is mainly attributed to the serious aging problem and the pressure on the pension supply system, which has made researchers very interested in studying the determinants for the less willingness of financial plan for retirement.

4.2 Authors Country and Institution

In recent years, the study of the determinants of retirement financial planning has attracted widespread research attention worldwide. These 107 articles come from research by scholars from 24 countries. Among them, researchers in the United States published the largest number of publications (60, accounting for 56.1% of the total number of articles). The UK and Germany are tied for second place, each publishing eight articles (7.5%).

In addition, this study identifies the institution with the highest contribution through the analysis of affiliated institutions. It is worth noting that most of the countries where the institutions in Table 1 are in the United States, which is consistent with the fact that more than half of the articles are published in the United States of America.

Further, the top 10 journals were identified in the field of research (Table 1). The themes in the financial planning for retirement field were not only accepted by journals in disciplines such as finance and economics but also by a wider range of journals.

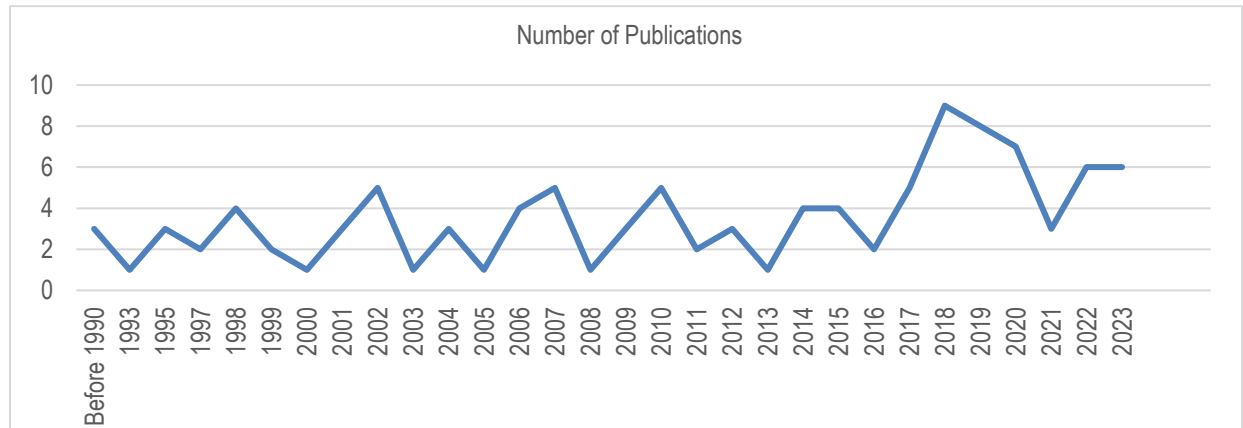


Fig. 1: The number of publications for FPR from 1970 to 2023
(Source:) Author

Table 1. Distribution of Articles by Top 10 Influential Countries, Journals, and Institutions

Countries				Journals				Institutions			
		N	%			N	%			N	%
1	United States	60	56.1%	Journal of Pension Economics and Finance		7	6.5%	National Bureau of Economic Research		10	9.3%
2	United Kingdom	8	7.5%	Journal of Public Economics		6	5.6%	University of Pennsylvania		8	7.5%
3	Germany	8	7.5%	National Tax Journal		4	3.7%	Wharton School of the University of Pennsylvania		8	7.5%
4	Australia	5	4.7%	Journal of Financial Counseling and Planning		4	3.7%	NC State University		6	5.6%
5	Canada	5	4.7%	Journal of Consumer Affairs		4	3.7%	Harvard University		6	5.6%
6	Spain	4	3.7%	Fiscal Studies		3	2.8%	Massachusetts Institute of Technology (MIT)		4	3.7%
7	Netherlands	3	2.8%	Studies in Economics and Finance		2	1.9%	Poole College of Management		4	3.7%
8	China	2	1.9%	Research on Aging		2	1.9%	The Brookings Institution		3	2.8%
9	France	2	1.9%	Public Finance Review		2	1.9%	Dartmouth College		3	2.8%
10	Israel	2	1.9%	Journal of Finance		2	1.9%	Monash University in Australia		3	2.8%

(Source:) Author

4.3 Author Influence

Table 2 shows the author ranking of over three articles published on FPR determinants research. From the list of countries with productive authors, almost all the top five researchers are from the United States of America. Combined with the above analysis, it can be concluded that research in the United States of America accounts for a large proportion of FPR determinants research, which requires cross-countries or cross-cultural collaborative research to enrich research insight and provide more empirical evidence in the future.

Table 2. Top Authors Who Published More Than Three Documents

Rank	Author	Countries	Documents	Citations
1	Mitchell, O.S.	United States	7	137
2	Clark, R.L.	United Kingdom	4	44
3	Wise, D.A.	United States	3	70
4	Gale, W.G.	United States	3	63
5	Choi, J.J.	United States	3	99

(Source:) Author

4.4 Most Cited Articles

Table 3 shows the papers with the highest number of citations ordered by citations. It can be inferred from Table 3 that the document of Duflo and Saez (2002) has the highest number of citations (315 citations), followed by Beshears et al. (2015) (145 citations). Interestingly, among the most cited articles, in addition to studying the motivation of objective variables on financial planning for retirement, there have also been some articles specifically studying the impact of psychological factors on financial planning for retirement. The highest citation publication related to the psychological aspects of retirement readiness was published by Hershey et al. (2007) in the Journal of Adult Development.

Table 3. Top 10 Most Cited Papers in Determinants of Financial Planning for Retirement

Rank	Title	Authors	Year	Journal	Citation
1	Participation and investment decisions in a retirement plan: The influence of colleagues' choices	Duflo E. & Saez E.	2002	Journal of Public Economics	315
2	The Effect of Providing Peer Information on Retirement Savings Decisions	Beshears J., Choi J.J., Laibson D., Madrian B.C. & Milkman K.L.	2015	Journal of Finance	145
3	Do 401(k) contributions crowd out other personal savings?	Poterba J.M., Venti S.F. & Wise D.A.	1995	Journal of Public Economics	108
4	Psychological foundations of financial planning for retirement	Hershey D.A., Jacobs-Lawson J.M., McArdle J.J. & Hamagami F.	2007	Journal of Adult Development	107
5	The effects of financial education in the workplace: Evidence from a survey of employers	Bayer P.J., Bernheim B.D. & Scholz J.K.	2009	Economic Inquiry	95
6	Chapter 32 Social security	Feldstein M. & Liebman J.B.	2002	Handbook of Public Economics	80
7	Effect of saving motives and horizon on saving behaviors	Fisher P.J. & Montalto C.P.	2010	Journal of Economic Psychology	74
8	How does the Internet affect trading? Evidence from investor behavior in 401(k) plans	Choi J.J., Laibson D. & Metrick A.	2002	Journal of Financial Economics	72
9	Aging and financial planning for retirement: Interdisciplinary influences viewed through a cross-cultural lens	Hershey D., Henkens K. & Van Dalen H.	2010	International Journal of Aging and Human Development	63
10	Regret, portfolio choice, and guarantees in defined contribution schemes	Muermann A., Mitchell O.S. & Volkman J.M.	2006	Insurance: Mathematics and Economics	62

(Source:) Author

5.0 Discussion

This study explores the prevailing themes of determining factors in retirement financial planning through keywords and subsequently analyzed using VOSViewer software. In total, the 107 papers have a total of 393 keywords, and after setting a threshold of at least three keyword occurrences, 23 keywords were ultimately obtained. Figure 2 displays the four clusters of keywords.

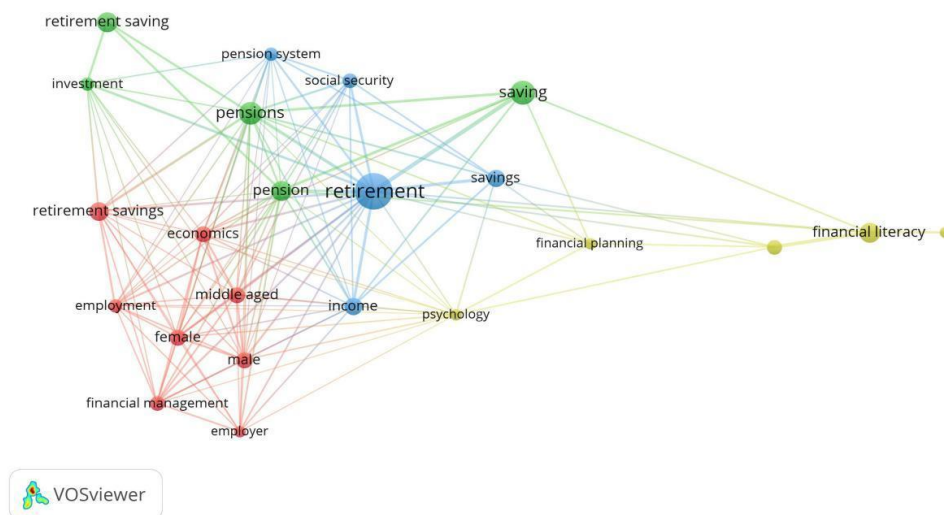


Fig. 2: Co-occurrence Analysis using VOSViewer Software
(Source:) Author

The first one represented in the red cluster, gathers the demographic determinants of financial planning for retirement. Therefore, “female”, “male”, “economics” and “middle-aged” are deeply related to “financial management”, “employer” and “retirement savings”. The results of the first cluster indicate that research on the demographic factors driving FPR is still the main trend. An example of a study that talks about this cluster is the research conducted by Dietz et al. (2003) in the United States of America. These studies can provide empirical evidence to other research because demographic determinants are more inclined to objective variables.

A second group of keywords, the green one, includes the influence of financial resources on financial planning for retirement. It is worth noting that the keywords in this cluster such as “pension” and “investment” are not only closely related to each other but also related to other keywords related to financial planning for retirement such as “saving” and “retirement saving”. An example of a study that talks about this cluster is the research conducted by Lehrer et al. (2023) in Canada.

In the blue cluster, “income” has thicker lines with “retirement” and “saving”. This keyword is also associated with “pension system” and “social security”. Thus “Income” can represent the core word in this cluster. An example of this cluster is the research conducted by Chen et al. (2018) in China. In addition, “income” is closely related to words in the red cluster such as “age”, “male”, and “female”. This means that income is a hot topic in determinants of FPR research, and future research can delve deeper into how income affects individuals’ FPR.

The yellow cluster can be associated with the field of research dealing with the psychological determinants of financial planning for retirement. Words like “psychology”, and “financial literacy” are prominent and deeply related to “financial planning” and “retirement planning”. An example of this cluster is the research conducted by Tamborini and Kim (2020) in the United States of America. There are two points worth noting about this cluster. Firstly, psychology is the only one that is simultaneously related to the words “financial planning” and “retirement saving”. Financial planning for retirement includes both retirement saving and financial planning, thus “psychology” will be the core word for future research on FPR. Moreover, like the word “income”, “psychology” is closely related to the keywords in the red cluster, which also requires further study by future researchers.

The clusters shown here are related to each other. For instance, in the study of FPR drivers, keywords in the green cluster are often studied together with keywords in the red cluster. Dietz (2003) explored that “females” were less likely to use “pension” plans to save for retirement.

6.0 Conclusion

The purpose of this study is to review the literature on the determinants of financial planning for retirement and to provide a systematic review in this area. Descriptive and keyword analyses of 107 articles were carried out with the software VOSViewer. The results help to identify the existing knowledge gaps: First, studies from developed countries, particularly the United States of America, which account for 60% of studies in this area, predominate. In addition, the authors’ collaboration remains within a country and not between countries or cultures. In addition, research is still focused on demographic determinants, but current issues such as “income” and “psychology” should be examined more closely in the future.

This study is important for prospective researchers because bibliometric analysis provides current trends in research on the determinants of financial planning for retirement. The cluster classification yields a platform for future researchers to fill knowledge gaps, efficiently identifying research problems and narrowing their research scope. The limitation of this study is the database used. Although Scopus is one of the largest databases, manuscripts that have not yet been indexed may not be discovered, future studies recommended combining Scopus and Web of Science (WoS) to get better results from the literature. In future research, more studies should be conducted in different countries and cultures. Especially, international cooperation among authors needs to be deepened. In addition, more studies need to combine systematic literature review (SLR) with Bibliometric to produce a better paper in the future.

Paper Contribution to Related Field of Study

This study has contributed to prospective researchers who need to conduct an analysis of financial planning for retirement. Using bibliometric analysis provides current trends and a platform for future researchers to fill knowledge gaps, efficiently identifying research problems and narrowing their research scope.

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