

# Malthusianism Reexamined: A Qualitative Approach to Historical Perspectives

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The world's population projection will increase to 9.8 billion in 2050. The increase in population growth has made experts begin to focus and associated his research with Malthusianism. This study aims to identify and develop research related to the development of Malthusianism through indexed Dimensions with an approach using the NVivo 12 Plus software. The data were analyzed from 123 publications published in the last 123 years (1899-2022). This study also found that behavioral changes and technological innovations are now intricately connected with us in a global society so that problems such as food scarcity which according to Malthus was caused by an explosion that was not illuminated by the amount of food in the world, therefore, Allah SWT bestowed nature and its contents. to meet human needs. Every human being has a share or benefit of each, so there is no shortage in terms of food related to the increase in population that occurs. Even so, Malthus' theory reminds us that population growth must still pay attention to environmental sustainability, meaning that it must be adjusted to carrying capacity.

**Keywords:** Malthusianism; Qualitative analysis; NVivo 12

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## INTRODUCTION

In a report by the Department of Population, the UN Social and Economic Affairs Division estimates that the world population will increase to 8.6 billion in 2030, 9.8 billion in 2050 and 11.2 billion in 2100. Bearing in mind that humans are becoming more and more, not fewer, but the more there are needs, it means that the need for goods and services is increasing. Talking about goods and services, of course it cannot be separated from the providers/resources themselves, both natural resources and human resources. So related to this, in conventional economics there is something called scarcity or scarcity where they think that resources are limited while human needs/desires are unlimited, which is the main problem in the economy (Muna & Qomar, 2020).

One of the capitalist economists who gave his thoughts regarding scarcity was Thomas Robert Malthus. The term scarcity is always associated with a crisis, namely an imbalance between supply (availability) and demand (needs), that is, when the demand figure is higher than availability, a crisis occurs. Concerns about the food crisis were first expressed by Thomas Robert Malthus (1766–1834), that the rate of population growth increased based on a geometric series, while food production was based on an arithmetic series. In Malthus's understanding, a geometric series is defined as an increase based on multiples, namely: 1, 2, 4, 8, and so on. Meanwhile, the arithmetic series explains that the increase occurs based on constant addition with variable numbers adding 1, namely 1, 2, 3, 4 and so on. It can be said that Malthus's theory reminds us that naturally future generations will have more complex problems related to food availability, compared to previous generations (Winsdel et al., 2015).

Furthermore, economic Malthusianism itself is a set of assumptions regarding the way in which population, technology and resource constraints interact. In its earliest form, it made assumptions about technological and resource constraints that implied that they were static and fixed, so that the aggregate production function was concave and static, as implied by the existence of necessary and fixed factors of production. In contrast, the assumption regarding population is that it is dynamic, and positively related to any growth in consumption. In this way, Malthus's Iron Law, as stated in Thomas Malthus's famous "Essay on the Principle of Population" published in 1798, is derived from the application of these simple population dynamics to the static nature of production systems. Surplus production available for consumption would be

squandered on increasing fertility, moving society inexorably towards an economic steady state (Aidt & Swanson, 2020).

Subsistence economies are often characterized by Malthusian population dynamics. In Malthusian economics, higher income leads to more births and fewer deaths. In short, it will increase population levels. But due to the diminishing returns to labor in production, more people gradually 'eat up' any increase in income, forcing it back to subsistence levels (Sharp et al., 2012).

The defining characteristic of the Malthusian phase of economic development was that there was no long-term growth trend in real wages. Increased productive potential is swallowed up by population growth. At the same time population growth is regulated by preventive checks on fertility and positive checks on mortality such that homeostatic balance is maintained (Crafts & Mills, 2009).

According to Malthus, because each member of society only owns a little land, the marginal contribution or food production will decrease. In agricultural societies, per capita income can be interpreted as per capita food production. Therefore, when food growth cannot keep up with rapid population growth, per capita income will decline. This decline in per capita income will be so low that it will reach slightly above the subsistence level (absolute poverty) (Junaidi & Hardiani, 2009).

Malthus also stated that like plants and animals, humans as creatures have a very strong instinct to increase their population. Therefore, if population growth is not controlled, the number of people will multiply indefinitely. Malthus also stated that efforts to slow down the rate of population growth could be done in two ways. First, is through a positive check. Positive checks are all things that contribute to the decline in human life, which has an impact on reducing the population. Examples include poverty, disease, war, famine and others. Second, is through preventive checks. In theory, preventive checks cover all possible means of birth control, including abstinence, contraception and abortion. However, Malthus only accepted birth prevention methods through moral restraint, in the form of postponing marriage, until the time when the person was sure that the family he formed would not be trapped in poverty which had an impact on reducing the quality of life of the community. Other birth prevention methods, including contraception (either before or during marriage), abortion, infanticide or other inappropriate methods, are seen as evil acts that

can reduce human dignity. According to Malthus, moral restraint is the most important thing, because he believes that allowing the prevention of birth through inappropriate means (prostitution, contraception, abortion or sterilization), will waste energy in ways that are not economically productive (Junaidi & Hardiani, 2009). In contrast to Malthus, the basic Marxist theory actually starts from the experience that humans throughout history will be able to adapt to developments over time. In Marxist theory it is explained that: (a) Destitution does not occur because of rapid population growth, but because capitalists take away some of the workers' rights; (b) Human population does not put pressure on food, but it does affect job opportunities; (c) The higher the level of human population, the higher the productivity, if technology does not replace human labor so there is no need to reduce the number of births.

Apart from that, Tukiran (2000) said that experts also criticized Malthus's theory at that time in four ways: (1) Malthus did not consider advances in transportation and communication that connect one region to another in terms of sending food from surplus areas to minus areas; (2) Lack of attention to technological advances that can double food supplies quickly; (3) Malthus did not pay attention to birth control efforts which many countries responded to intensively; (4) Birth rates will decrease if there is an improvement in living standards and health.

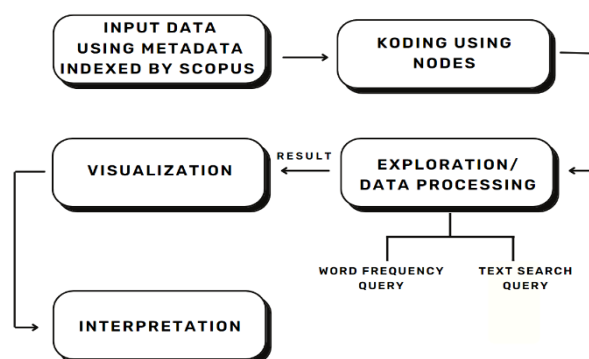
Apart from that, several previous studies have discussed many issues related to Malthusianism, including Malthus's fear of overpopulation not being based on strong economic arguments and Malthus's approach being unrealistic and contrary to the economic realities of the last two centuries (Mursa, 2012), Malthus' paradigm for justification for family planning (Pethe, 1982), the role of technology in sustainable population growth which rejects the Malthusian scenario (Montano & García-López, 2020). However, no research has been found that maps and examines the overall theme of Malthusianism in the world of research. Seeing this research gap, the researcher tried to develop research aimed at identifying and mapping research related to the development of Malthusianism research through accredited and reputable journals indexed by Dimensions with a qualitative approach using NVivo 12 Plus software. In addition, researchers also present sentiment analysis to see how experts perceive this theme. The data analyzed consists of 112 journals published in the last 123 years (1899-2022).

Furthermore, this paper is structured as follows. First, this paper presents the background and a review

of related literature. Then, the second section presents the research methods used and research findings. Finally, the contributions, practical implications, and limitations of the research are explained.

## RESEARCH METHOD

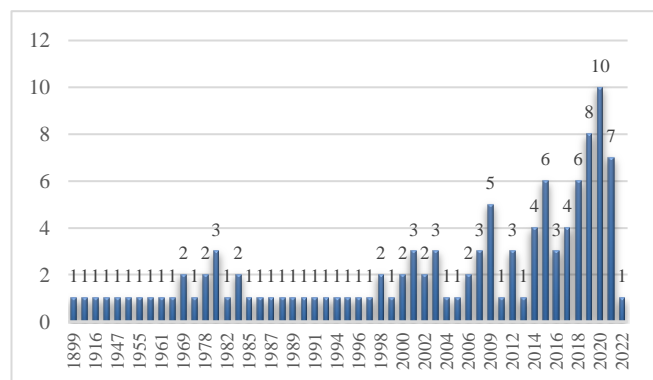
This research uses secondary data in the form of Dimension metadata to analyze data from research journals and other scientific articles published on the theme of Malthusianism over the last 123 years from 1899 to 2022. A qualitative approach combined with descriptive statistics on 112 articles on the theme of Malthusianism is the methodology used in this research. According to Yusuf (2017: 328), qualitative deepening is an investigation scheme that is concerned with exploring the meaning, characteristics, symptoms, understanding, concepts, symbols and descriptions of a phenomenon; uses several methods, and is presented narratively. On the other hand, in short, qualitative immersion is the process of seeking, collecting, analyzing, and interpreting extensive visual and narrative data to better understand a phenomenon or topic of interest. Qualitative research is descriptive; specifically, meaning in the field of statistics investigating methods of collecting, compiling and presenting research data in summary form. Data must be summarized in a consistent and acceptable manner, whether in tables, graphs, or graphical presentations, to serve as a basis for various judgments. Next, the author developed a framework for this study, as illustrated in Figure 1, which details the approach used to conduct a qualitative approach using NVivo 12 Plus software. NVivo 12 Plus is qualitative data analysis software that allows collecting, categorizing, mapping, analyzing and visualizing qualitative data obtained from documents (metadata) (Izza et al., 2021).



**Figure 1.** NVivo 12 Plus Qualitative Approach Methodology

## RESULTS AND DISCUSSION

### Main Information



Graph 1. Number of Publications Per Year

The table and graph above shows the number of papers on the theme of Malthusianism published by accredited and reputable journals indexed by Dimensions. There were 112 papers published within an observation period of 123 years, namely from 1899 to 2022 with a range of 0 to 10 papers. The most papers on the theme of Malthusianism were published in 2020, with 10 papers. Meanwhile, there is only 1 publication for 2022 because data collection has not been carried out in its entirety considering that collection was carried out in June 2022.

Next, this section explains the publication of Malthusianism papers based on journals that include reputations indexed by Dimensions. Of the 112 studies, research with the theme Malthusianism is included in the journals below:

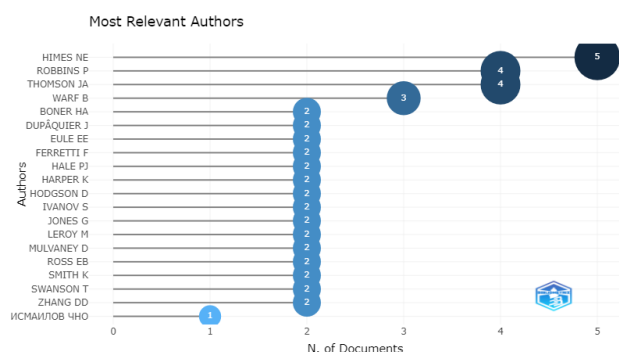


Figure 2. Most Relevant Authors According to Number of Publications

Table 3 above lists the 20 most prolific article authors with publications on Malthusianism published in the last 123 years. Himes N.E. became a productive writer with the most 5 publications, followed by Robbin P. with 4 publications, and followed by Thomson J.A. with 4 publications.

One of the studies written by Himes (1929) was entitled "McCulloch's Relation to the Neo-Malthusian Propaganda of His Time: An Episode in the History of English Neo-Malthusianism". This study examines certain phases of the origins of the neo-Malthusian movement in England in the 820s already known to Professor Graham Wallas, and more particularly to the thorough research of the late Professor James A. Field. The issue has been puzzling as to whether certain nineteenth-century political economists taught a clear and simple doctrine of Malthusianism by recommending "moral restraint" as a way out of population difficulties or whether, perhaps, some of them endorsed artificial methods of limiting, or at least controlling, population growth; whether, in other words, they approve of what is now widely known as "birth control."

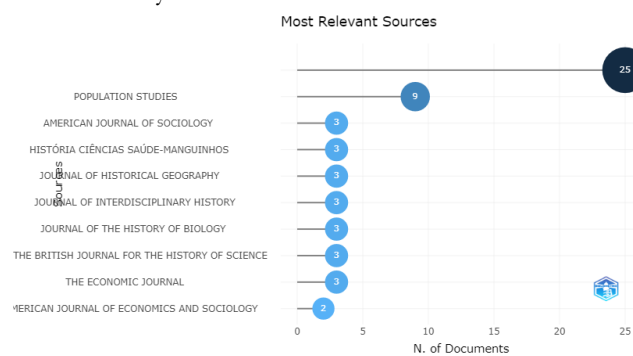


Figure 3. Classification of Journals

Based on the table above, there is a tendency for disparity in journal contributions in articles discussing the theme of Malthusianism. Multidisciplinary topics such as population, sociology, history of biology, economics, are some of the research fields interested in discussing Malthusianism. Thus, a variety of journals from various disciplines are represented in the author's data set, such as Population Studies, American Journal of Sociology, Journal of Historical Geography, and so on. However, it is possible that the number of articles will increase along with the development of science and the increasing trend of Malthusianism in the world of research.

One of the articles published in the Population Studies journal is research written by Glass (2016) with the title 'Population Investigation Committee Family Planning Programs and Action in Western Europe'. This research discusses Neo-Malthusian organizations to spread birth control propaganda formed in many Western European countries in the 1870s and 80s. But the birth control movement proper, with the provision of clinics and other means to provide advice on contraception, began much later—generally after World War I and largely on welfare grounds, divorced from

Malthusianism. Legal and other difficulties hinder progress and condition the nature of the movement. However, since World War II, the relevance of birth control has been increasingly recognized and the movement has grown rapidly. In some countries - especially in France, West Germany and Italy - legal obstacles still exist, although ways have been found to circumvent them. But even in other countries the direct impact of family planning clinics is much smaller than expected and married couples still obtain information about contraception from other sources. In recent years various national movements have shown greater interest in the evaluation of their activities. As a result, the near future may see substantial changes in their structure and in their approach towards their potential clients.

**Table 1.** Most Cited Publications

Citation	Authors	Title	Year
310	Zhang, David D.; Brecke, Peter; Lee, Harry F.; He, Yuan-Qing; Zhang, Jane	Global climate change, war, and population decline in recent human history	2007
45	May, John F.	World Population Policies, Their Origin, Evolution, and Impact	2012
40	Claeys, Gregory	Qu'est-ce que la political ecology?	2009
24	Ojeda, Diana; Sasser, Jade S.; Lunstrum, Elizabeth	Malthus's specter and the anthropocene	2019
18	Muhoza, Dieudonné Ndaruhuye; Broekhuis, Annelet; Hooimeijer, Pieter	Variations in Desired Family Size and Excess Fertility in East Africa	2014
16	Ross, Eric B.	Malthusianism, Capitalist Agriculture, and the Fate of Peasants in the Making of the Modern World Food System	2003
16	Harkins, Steven; Lugo-Ocando, Jairo	How Malthusian ideology crept into the newsroom: British tabloids and the coverage of the 'underclass'	2015
15	Gómez-Baggethun, Erik	More is more: Scaling political ecology within limits to growth	2020

Table 1 shows the publications with the highest citations from each journal obtained from Dimensions indexed metadata. One of the articles with the most citations is research written by [Zhang et al \(2007\)](#) with the title "Global climate change, war, and population decline in recent human history". This research discusses high-resolution paleo-climatic data that has been used to explore at a macro level the impact of climate change on the outbreak of war and population decline in the pre-industrial era. The findings of this study suggest that worldwide war and peace-synchrony, population, and price cycles in recent centuries have been driven primarily by long-term climate change. These findings also imply that social mechanisms that might mitigate the impacts of climate change were not significantly effective during the study period. Thus, climate change may have played a more important role and had broader effects on human civilization than has been estimated so far. The findings of this research may provide an additional dimension to the classic concepts of Malthusianism and Darwinism.

## Wordcloud



**Figure 4.** Wordcloud of Malthusianism

Analysis using word frequency tools aims to find research problems with the highest repetition in terms of the material being searched for. Words and terms frequently used in the text are shown in figure 2 based on automatic coding. The word size in the word frequency results shows a higher frequency of occurrence than the others.

Based on word frequency results from 112 Malthusianism themed publications obtained from mapping and percentages calculated automatically by Nvivo 12 Plus Wizard. The word 'population' is the word with the highest frequency in published journals with a percentage of 3.42%, followed by the word



'growth' with a total percentage of 1.29% and followed by the third highest word, namely 'malthusianism' with a percentage of 1.13%. Apart from that, the automatic coding results also show several other interesting terms such as political, control, development, family, neo, economic, etc.

### Treemap

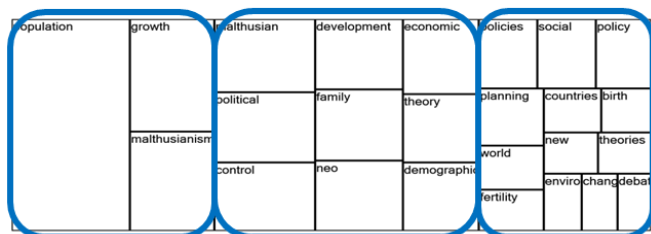


Figure 5. Treemap analysis

The next tool presented from Word Frequency analysis is treemap. A treemap is a diagram that shows data in a hierarchical order, as a collection of nested rectangles with different dimensions, sizes, and shapes. The measure shows the amount based on frequency and percentage. The treemap is scaled to fit the space offered. The size of the rectangles should be considered in relation to each other resulting in the appearance of a larger area at the top left of the chart, compared to, the appearance of a smaller rectangle at the bottom right (Help NVivo, 2020). From the Word frequency analysis in the form of a treemap resulting from this analysis, it has shown three different aspects of Malthusianism:

- Concerns: Population, Growth, and Malthusianism.
- Focus: Malthusian, Political, Economics, Control, Family, Theory, and Demographics.
- Anecdotes: Policies, Planning, Fertility, Social, Birth, Environment, and so on.

### Cluster Analysis

#### Items clustered by word similarity

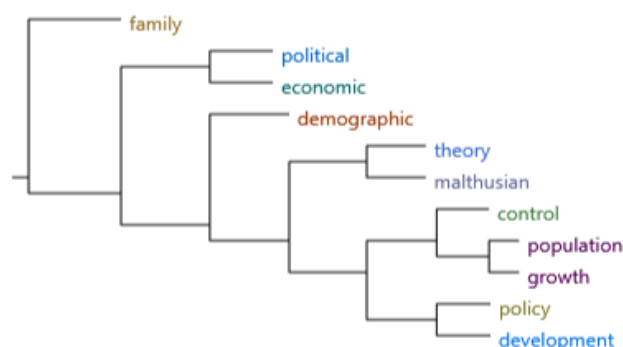


Figure 6. Malthusianism Cluster Analysis

Next, Figure 6 shows cluster analysis, namely the technique used to explore and visualize patterns in the Malthusianism theme by grouping sources or words that are similar or related. There are 2 main clusters in general that group words and their relationships.

Cluster 1 discusses the Malthusian paradigm and family planning. Among the studies that discuss the 'family' theme in this cluster are entitled Malthus, Malthusianism, family planning and ONAPO (Niyibizi, 1991), Malthusian Paradigm and the Issue of Compulsion in Family Planning (Pethe, 1982), Family planning programs and action in Western Europe (Glass, 2016), P14 Neo-malthusianism in the conception of the family planning frame: the role of the ford foundation in population control in China and India (Longkumer, 2021), Variations in Desired Family Size and Excess Fertility in East Africa (Muhoza et al., 2014).

Cluster 2 discusses Malthusian theory which is directly related to Malthusianism. Among the general themes discussed in this cluster are political (Gómez-Baggethun, 2020), economic (Aidt & Swanson, 2020), malthusian (Boner, 1955), control (Takeuchi-Demirci, 2021), population (Carter, 2018), growth (Markantonatou, 2016), and others.

### Sentiment Analysis

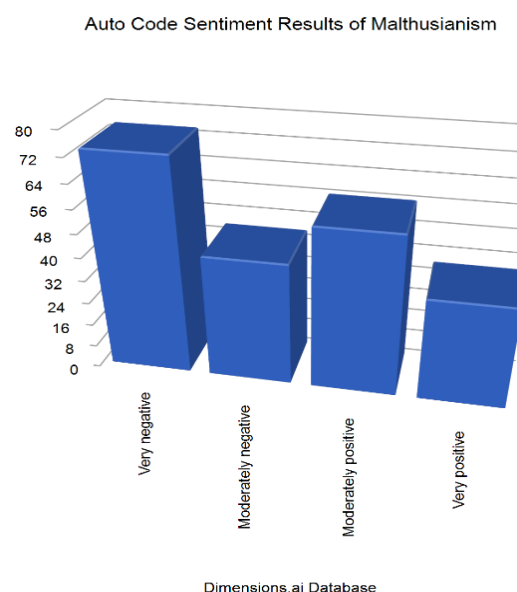


Figure 7. Bar Chart of Sentiments of Malthusianism

Next, the author carried out sentiment analysis on the Malthusianism theme using automatic sentiment coding from NVivo 12 Plus. In NVivo, sentiment expression to find out whether it is positive, negative or neutral (the intersection of positive and negative), text

analysis is applied. This process uses a scoring system. Each word that contains feelings has a predetermined score. The content is coded into a set of sentiments, ranging from very positive to very negative (Pazmiño et al., 2020). Then, from these results, it was carried out to determine the experts' perceptions of the Malthusianism theme. The research results revealed that the majority had a very negative attitude towards the Malthusianism theme. This figure explains that 74 references were coded with very negative sentiment, followed by 43 references coded with moderately negative sentiment, 56 references coded with moderately positive sentiment, while 36 references were coded with very positive sentiment.

## FINDINGS

This research found that the theme of Malthusianism is still a debated topic discussed in various published papers. It is noted that in this era of globalization, this theory has begun to be forgotten. As written in this theory, in its earliest form, it made assumptions regarding technological and resource constraints that implied that they were static and fixed, so that the aggregate production function was concave and static, as implied by the existence of necessary and fixed factors of production. In contrast, the assumption regarding population is that it is dynamic, and positively related to any consumption growth (Aidt & Swanson, 2020).

In fact, Malthusian fears of overpopulation were not based on sound economic arguments. On a pessimistic vision of the economic future of humanity is based a methodological error, namely analyzing the population - resource relationship from a static perspective, which takes into account the volume of known reserves and ignores much of the impact of knowledge generated by science and entrepreneurship. Therefore, the Malthusian approach is unrealistic and contrary to the economic realities of the last two centuries (Mursa, 2012).

It is also supported that continued population growth and future forecasts show that technology has a responsibility to continue to be a key part of economic growth. If technology is unable to maintain production growth rates higher than population growth rates, we will return to the scenario described by Malthus (Montano & García-López, 2020). Moreover, behavioral changes and technological innovations over the last century now intricately connect us in one global society. In the context of our current highly globalized society,

an important question is how to exploit the enormous potential that exists (Nekola et al., 2013).

It needs to be emphasized again that the population theory explained by Malthus is no longer relevant today because of advances in information technology and people's mindset, especially women who have higher education, tend to have fewer children than women who do not have higher education. Apart from that, technological advances and the occurrence of natural disasters are caused by climate change so that the theory is abandoned (AlFauziah, 2021). The economic changes currently occurring involve changes in culture, technology and habits. When the pace of human innovation and transfer is not fast enough to keep pace with rapid ecological change, famine and disease become difficult to avoid. Trade and redistribution under conditions of shrinking resources will not be of much help because ecological pressures are on a very large global or regional scale (Zhang et al., 2007).

In the end, considering the Islamic economic perspective, if we return to the problem of food scarcity which according to Malthus was caused by a population explosion that was not explained by the amount of food in the world, then in essence, Allah SWT has given nature and its contents to fulfill human needs. Every human being has their own share or benefits, so there is no shortage of food related to the increasing population. However, Malthus's theory reminds us that population growth must still pay attention to environmental sustainability, meaning it must be adjusted to the carrying capacity and capacity of the environment (Muna & Qomar, 2020).

## CONCLUSION

This research examines the extent to which the theme of Malthusianism has developed in scientific literature. The results show that there have been a number of paper publications on the theme of Malthusianism in the last 123 years from 1899 to 2022 with 112 studies equipped with a Digital-Object-Identifier (DOI) indexed by Dimensions.

Additionally, this review includes a word frequency analysis of a comprehensive evaluation of interdisciplinary research related to Malthusianism. From the frequency of words that often appear, there are the words population (3.42%), growth (1.29%), and malthusianism (1.13%). Apart from that, it was also found that the majority of experts' perceptions of the Malthusianism theme had a 'very negative' attitude towards the Malthusianism theme. This research also finds that behavioral changes and technological

innovations over the last century have now intricately connected us in one global society so that problems such as food scarcity which according to Malthus were caused by a population explosion that is not explained by the amount of food in the world, so in essence, Allah SWT has gifting nature and its contents to meet human needs. Every human being has their own share or benefits, so there is no shortage of food related to the increasing population. However, Malthus's theory reminds us that population growth must still pay attention to environmental sustainability, meaning it must be adjusted to the carrying capacity and capacity of the environment.

It should be stated that although the aim of this research is to provide a qualitative approach to the trend of Malthusianism in the world of research, the time period covered is limited and the results offered are still dynamic and may change over time, with new trends emerging or variables increasing in the future. will come. Finally, it should be noted that this research has limitations, namely that the time frame is limited and the results offered are still dynamic and can change over time, with new trends or variables emerging. Apart from that, the database used is Dimensions. Suggestions for further research could be to use better databases such as WoS, Scopus, and others for more comprehensive results. In the future, studies can also use bibliometric analysis (Niswah, 2020; Riani & Fatoni, 2022; Sari, 2022, As-Salafiyah, 2022; Uula & Maziyyah, 2022) or scientometric approaches (Riani, 2021; Puspita, 2022; Nuraini, 2023; Gunawan & Herman, 2022; As-Salafiyah & Rusydiana, 2022) to map Malthusian economic thought.

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