Islamic Business Resilience: A Bibliometrics Review of Circular Economy and Business

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Abstract. The pandemic resulting from COVID-19 disease has brought about an unprecedented crisis in business. Business recovery is a task that must be completed by both business people and the government as policymakers. The circular economy that aims to transform waste into resources and bridge production and consumption activities is an alternative to business recovery. This study aims to provide a bibliometric analysis and identify publication trends in the scope of "circular economy and business recovery." The data was analyzed from 179 research publications from 2010 to 2022 in Dimensions. The search terms were "circular economy" and "business recovery." A bibliometrics analysis was conducted by Biblioshiny to generate a bibliometric map. The number of articles discussing the theme of circular economy and business recovery was quite large with more than 100 articles published. The most popular keywords used were "circular," "economy," "business," "recovery," and "waste." Furthermore, there are many keywords that are related more specifically to the field of circular economy and business recovery, namely "sustainable," "supply," "chain," "green," "energy," "innovation," and "materials." The merging of the circular economy concept with Islamic economics and finance makes it possible to promote a stakeholder model to provide alternative solutions for the development of a resilient and environmentally friendly sharia business. This research helps researchers determine their research position, find potential themes for future research and provide recommendations to policymakers for the development of Islamic business.

Keywords: Circular economy, Business recovery, Bibliometrics analysis, Dimensions.ai, Biblioshiny

1 Introduction

Recovery

The pandemic resulting from COVID-19 disease has bought about an unprecedented crisis in business. The global COVID-19 crisis has led to a decline in productive and commercial activities, as well as the use of transportation, which has led to a marked reduction in pollution levels. The paralysis of economic activity requires the government's policy commitment to

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enact a law for economic recovery based on sustainability (Cifuentes-Faura, 2022). If the sustainability-based economic recovery is not carried out, then it is not impossible that the impact of the pandemic risks exacerbate major global environmental crises that are still occurring, such as climate change, environmental degradation, and sustainable resource depletion (Giurca, Befort, & Taylor, 2022).

Business recovery is a task that must be completed by both business people and the government as policymakers. The circular economy that aims to transform waste into resources and bridge production and consumption activities is an alternative to business recovery. Circular economic trends also emerged to alleviate economic problems, preserve the rights of others, and protect the environment coincided with Islamic economic theory (Khateeb, Jumat, & Khamis, 2021). The circular economy is rooted in the ideas of ecoefficiency, resource efficiency, renewable energy, low carbon emissions, and increasing natural capital. This has implications for the conceptualization, implementation, and evolution of a circular economy that strongly assimilates the ingredients of resource efficiency and segregation, sustainable and inclusive economic growth, environmental preservation, and promotion of sustainable consumption and production patterns. Islamic business models and financial products provide advantages for Islamic banks over conventional banks by providing financing at all stages to promote circular economy activities (Rashid & Siddique, 2021).

In mainstream economics, prior studies state that the circular economy resolves economic problems post-pandemic (Cifuentes-Faura, 2022; Giurca et al., 2022; Sharma et al., 2021). In another hand, economic recovery is carried out by utilizing Islamic social financial instruments. Islamic Social Financial Instruments, especially waqf, save business actors, especially micro and small businesses (UMK), through financial and business assistance (especially digital marketing) (Ascarya, 2022). Interestingly, Islamic finance can use compassionate contracting modes, such as equity, and risk sharing to support circular businesses motivated by Maqashid sharia before the pandemic (Ibrahim & Shirazi, 2020). Previous research has also developed an integrated institutional framework for venture waqf that aims to promote small businesses and change the business paradigm from a waste-oriented linear economy to an ideal zero-waste circular economy (Khan, 2019).

Prior research using bibliometric analysis in the domain of circular economy explains the important points that hinder the implementation of a circular economy, namely the lack of financial, organizational, and national indicators to assess the development of different circular businesses (Gonçalves, Carvalho, & Fiorini, 2022). This research is different from previous studies because it uses bibliometric analysis by using metadata obtained from dimensions. This study aims to provide a bibliometric analysis and identify publication trends in the scope of circular economy and business recovery.

2 Research Method

This study aims to provide a bibliometric analysis and identify publication trends in the scope of "circular economy and business recovery." The data was analyzed from 179 research publications from 2010 to 2022 in Dimensions. The search terms were "circular economy" and "business recovery." A bibliometrics analysis was conducted by Biblioshiny to generate a bibliometric map.

A bibliometrics map explains publication trends in "circular economy and business recovery" in terms of author, publication source, country, and keywords/topics. Furthermore, based on the results of bibliometric analysis, this study compiles the relevance of the topic of "circular economy and business recovery" to Islamic business resilience.

3 Result and Discussion

3.1 Publication Trends in Circular Economy and Business Recovery

Based on data obtained from the Dimensions database, the trend of research publications on the topic of "circular economy and business recovery" tends to increase from 2010 to 2022. The publications collected in this study were 179 articles from 108 sources. The number of authors who wrote articles on the theme of "circular economy and business recovery" was 591. There were 23 single-author and 568 multi-authors.

Figure 1 describes the Three-Field Plot consists of 3 elements, namely the name of the journal, a list of authors, and the theme/topic. The three elements are connected by a grey line, to link the relationship with each other. Starting from the left which contains a list of journal names. Each journal is associated with an author who frequently contributes to the publication. The middle section contains a list of authors, where each author is associated with the most frequently used topics for research with the theme of "circular economy and business recovery". Next, each rectangular size represents the number of publications associated with each element.

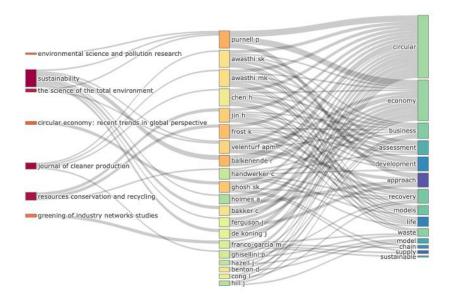


Figure 1. Three-Field Plot

The first element, the left side of the figure, explains the name of the journal that publishes articles on the theme of "circular economy and business recovery". There are 7 journals in the Three-Field Plot which publish articles with the theme of "circular economy and business recovery". The top journal that publishes the highest number of articles on the theme of "circular economy and business recovery" is "Sustainability", as evidenced by the image of the longest red rectangular box. The "Sustainability" journal is associated with several authors, namely Purnell P., Valenturf Apm., Balkenende R., Holmes A., Bakker C., Ferguson J., and De Koning J. Furthermore, the second-largest journal that publishes articles with the theme of "circular economy and business recovery" is "Recourses Conversation and Recycling". This journal is connected with several authors such as Handwerker C., Frost K., and Jin H. The third journal that publishes the most articles on the theme of "circular economy and business recovery" is the "Journal of Cleaner Production", which is connected to the authors Ghisellini P., Chen H., Awasthi MK., and Awasthi SK.

The second element, the middle part of the image shows a list of names of authors with the theme of "circular economy and business recovery." Several authors were linked to previous journals. In addition, the author will also be associated with topics that are often used in the image on the right. In this study, there were 20 top researchers registered in this plot. The size of the rectangular box indicates the respective number of research publications from each author. Most of the authors with the theme of "circular economy and business recovery" are Purnell P., who is associated with the topic "circular and economy." The second authors are Awasthi SK, Awasthi MK, and Chen H, who is associated with the topic/keyword circular, economy, and business.

Finally, the third element describes the research topic on the right side of the figure. Each topic is linked to the author who has written the most on the related topic. Based on the image, there are 14 topics listed. Of all the topics that appear, the words circular, economy, and business are the most used topics associated with the author in the middle picture. This illustrates that the words circular, economy and business are closely related to research with the theme of "circular economy and business recovery."

Figure. 2 is the production of top writers over time which describes the production of the top 20 writers from 2015 to 2022. From the figure, it can be seen that some authors are long-time writers on the "circular economy and business recovery" themes and some are new writers. The author's productivity is indicated by a red line, which is from the time the author publishes his research until the last year the author publishes his research. In addition, the blue circle in the red line shows the number of publications published by year of publication. The larger the circle, the more articles the author published that year. The darker the circle, the more citations received per year.

Top-Authors' Production over Time

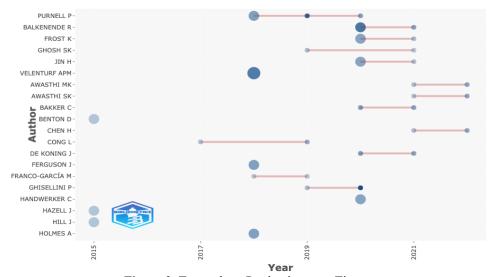


Figure 2. Top authors Production over Time

Based on Figure 2, there are 3 authors who have the longest track records in publishing articles with the theme of "circular economy and business recovery," namely Purnell P. (2018-2020), Ghosh SK. (2019-2021), and Cong L. (2017-2019). Authors who are pioneers in the literature discussing the circular economy and business recovery are Benton D. (2015), Hazell J. (2015), Hill J. (2015). Meanwhile, Awasthi MK, Awasthi SK, and Chen H (2021-2022) are writers who will only start publishing articles with this theme in 2021. The author with the highest number of publications and citations is Velenturf APH. In addition, Purnell

P., Balkenende R., Frost K., and Jin H. are also the top five prolific authors with the highest number of citations.

Figure 3 is Brandfors's Law which explains the classification of journals based on Bradford's law. Journals are classified based on their productivity level and are divided into several sections, namely the core journal group, intermediate journal group, and broad journal group. Core Journal groups are indicated by shaded sections and annotated core sources. Journals that are included in the depth of the shaded image section are journals with a high level of productivity on the theme of "circular economy and business recovery."

Bradford's Law

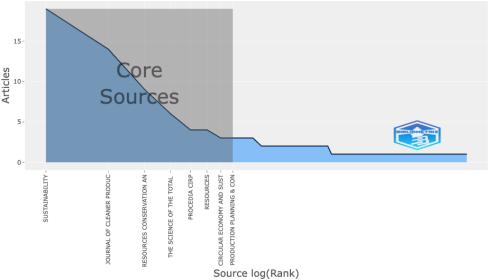


Figure 3. Bradford's Law

"Sustainability" is the journal with the highest number of publications with 15 articles on the theme of "circular economy and business recovery." The second position is the "Journal of Cleaner Production" with more than 10 publications. Furthermore, there are 6 other journals included in the core journal category that publish publications under 10 studies.

Figure 4 is country scientific production which explains the distribution of countries that publish articles with the theme of "circular economy and business recovery." In this study, there were as many as 20 countries that published articles on the theme of "circular economy and business recovery." The country that produces the most writings on the theme of country scientific production is Italy, which has 32 articles. Country number two is the UK with a total of 24 posts. The third country is India with 19 publications. Furthermore, there are China with 13 publications, Brazil with 12 publications, Belgium, Netherlands, and Sweden with 9 publications each. Australia, France, and Japan each have as many as 7 publications. Denmark, Finland, and Spain as many as 6 publications. Germany and Turkey have 5 publications. Meanwhile, Colombia, Greece, and Poland each have 4 publications.

Country Scientific Production

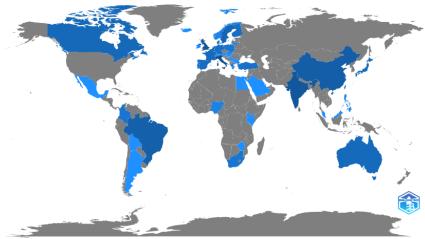


Figure 4. Country Scientific Production

Figure 5 is a TreeMap depicting words that appear frequently in publications on the "circular economy and business recovery." The words that often appear are depicted in the form of colored boxes. The more often the word appears and is used, the larger the area of the rectangle shown. Furthermore, the grouping and appearance of words in the form of colored groups because it considers the relationship between one word and another.

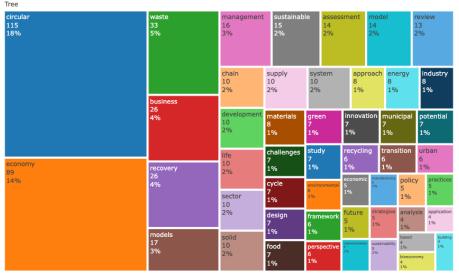


Figure 5. TreeMap

According to TreeMap, the most frequent words appearing in publications on the theme of "circular economy and business recovery" are "circular" at 18%, "economy" at 14% and "waste" at 5%, "business," and "recovery" at 4%. These five words are the most frequently used words. This is evidenced by the area of the square box which is wider than the other word boxes. In addition, there are several words such as sustainable (2%), supply (2%), chain (1%), green (1%), energy (1%), innovation (1%), and material (1%) still little used but relevant to the topic of "circular economy and business recovery."

3.2 Relevancies Circular Economy and Business Recovery to Islamic Business Resilience

Based on the bibliometric analysis carried out with the Biblioshiny application, the research domain of "circular economy and business recovery" has attracted the attention of many researchers in various countries. Even if you look at the list of countries that publish articles discussing this theme, countries with a Muslim majority population have not played much of a role. This is an irony because the circular economy concept itself is in accordance with Islamic teachings.

In terms of publication sources, the journals that publish articles in the "circular economy and business recovery" domain are "Sustainability" and "Journal of Cleaner Production." Of the top eight journals that produce articles on this theme, none of them cover economics and business. This means that this theme has been discussed a lot by scientists but has not become a hot topic for economics scholars. In line with that, the most productive author, Velenturf APM., writes articles that promote economic integration with social and environmental values, measures, and models (Velenturf, Purnell, Tregent, Ferguson, & Holmes, 2018). Velenturf also proposes an interesting discussion about the resources recovery (Velenturf & Jopson, 2019) and how to build integrated resources from a system perspective (Velenturf et al., 2019). Finally, Velenturf also developed a value framework, namely the ten principles of a sustainable circular economy for the design, implementation, and evaluation (Velenturf & Purnell, 2021).

According to bibliometric analysis, the most popular keywords used were "circular," "economy," "business," "recovery," and "waste." In addition, there are several other relevant words such as "sustainable, supply, chain, green, energy, innovation, and materials" that are still rarely used in the discussion of this domain. This opens an opportunity to discuss the circular economy and business recovery themes with these keywords.

The discussion on the relevance of the circular economy and business recovery to Islamic business resilience is carried out by identifying previous studies related to this topic. As far as researchers search, there are no articles that exactly accommodate this discussion, but we try to identify relevant studies. Table 1 describes the relevance of circular economy and business recovery to Islamic business resilience.

Table 1. Relevancies of Circular Economy and Business Recovery to Islamic Business Resilience

Reference	Journal	Relevance
Cifuentes-	Circular	This article discusses themes related to the circular
Faura	Economy and	economy and business recovery after the COVID-19
(2022)	Sustainability	pandemic. In addition, it proposes solutions for solving
		pollution, climate change, loss of biodiversity, or unfair
		distribution of wealth by applying a circular economy
		and sustainability.
Gigauri	International	This article discusses themes related to the circular
(2021)	Journal of	economy and business recovery after the COVID-19
	Innovative	pandemic. These articles stated that the low-touch
	Technologies in	economy along with the digital economy can be a
	Economy	solution for post-pandemic business recovery.
Ibrahim &	Journal of	This article discusses themes related to the circular
Shirazi	Economic	economy and Islamic business. The article proposes
(2020)	Cooperation	implementation maqashid sharia in Islamic Finance to
	and	support circular business using compassionate contracts.
	Development	

Akintan et al. (2021)	International Research Journal of Shariah, Muamalat and Islam	This article discusses themes related to the circular economy and Islamic business. The article states that <i>ijarah</i> , <i>sukuk</i> , <i>qard hassan</i> , <i>istisna</i> , <i>musharakah</i> , <i>mudarabah</i> , <i>wakalah</i> , <i>kafalah</i> , and <i>ju'ala</i> financing suitable for business model based circular economy.
Fauzi & Rahadi (2021)	European Journal of Business and Management Research	This article discusses themes related to business recovery and Islamic business resilience during Covid 19 pandemic. The article proposes Islamic property business resilience model during and after the COVID-19 pandemic.

A circular economy, with all its limitations, does present a decision-making model that makes decisions that are made not only based on the narrow personal interests of individuals. The circular economy provides an opportunity to further strengthen the alignment in the current discourse on the development of Islamic Banking and Islamic social finance. Merging the concept of a circular economy with Islamic economics and finance makes it possible to promote a stakeholder model in which decisions made by individual agents must include concern for others, including the environment (Haneef & Jamaludin, 2021). This is expected to provide alternative solutions for the development of a resilient and environmentally friendly Islamic business.

4 Conclusion

This study aims to provide a bibliometric analysis and identify publication trends in the scope of "circular economy and business recovery." The data was analyzed from 179 research publications from 2010 to 2022 in Dimensions. The search terms were "circular economy" and "business recovery." A bibliometrics analysis was conducted by Biblioshiny to generate a bibliometric map. The most popular keywords used were "circular," "economy," "business," "recovery," and "waste." Furthermore, there are many keywords that are related more specifically to the field of circular economy and business recovery, namely "sustainable," "supply," "chain," "green," "energy," "innovation," and "materials." The merging of the circular economy concept with Islamic economics and finance makes it possible to promote a stakeholder model to provide alternative solutions for the development of a resilient and environmentally friendly sharia business. This research helps researchers determine their research position, find potential themes for future research and provide recommendations to policymakers for the development of Islamic business.

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