Sentiment Analysis of Literature on Sharia Credit Card

Irni Nuraini
Tazkia Islamic Institute College

This study was carried out to examine the Islamic credit card within the context of Islamic economics in terms of scientific research produced in response to the introduction of Islamic credit cards. Descriptive bibliometric statistical analysis and sentiment analysis are applied to secondary data in the form of 134 papers published over the last nine years and then processed with VOSViewer and SentiStrength. The results demonstrated that bibliometric mapping is divided into two clusters, with cluster 1 containing 33 keywords and cluster 2 containing 26. The results of sentiment analysis of the literature indicate 34% positive sentiment, 25% negative sentiment, 41% neutral sentiment, and 0% high negative and high positive sentiment.

Keywords: Islamic Credit Card; Sentiment Analysis; Bibliometric
INTRODUCTION

Credit cards are recognized as one of the best marketing tools in the banking industry. Credit cards help people make monetary transactions without carrying cash because the credit card issuer pays the transaction’s proceeds on the buyer’s behalf (Jamshidi & Hussin, 2016). Credit cards offer many conveniences to their users as a means of installment and non-installment payments, including payment of goods, payment of insurance premiums, payment of zakat, or as a means of payment for remittances between countries (international) and others (Amine, 2015; Mohd Dali et al., 2015; Salleh et al., 2021).

According to Islamic economics, an unrestrained financial system will result in injustice. Islamic economics contend that for markets to deliver equitable outcomes, economic actors must adhere to Islamic rules of conduct. When financial transactions follow Islamic restrictions, ethically superior and ultimately more gratifying financial products will emerge. This master story was used to develop credit cards in the 1940s. Islamic banks have begun issuing credit cards that adhere to Islamic principles to compete in the banking business of the present day (Çokgezen & Kuran, 2015).

However, the participation of Islamic credit cards in the banking product, which more or less uses a mirroring system or refers to how conventional credit cards work, has raised several criticisms and studies from researchers or academics, especially regarding the suitability of Islamic credit cards with Islamic values (Shaharuddin, 2012). So that researchers continue to try to find solutions so that the existing contracts on Islamic credit cards avoid the element of usury. For example, Islamic credit cards in Malaysia rely on the concept of ba’i inah, which is debated by several madhhaba, so several Islamic banks in Malaysia offer a better alternative, namely by developing credit cards with the idea of urrah, which scholars less debate (Balarabe & Abdullah, 2020).

The presence of conventional credit cards is much earlier and, of course, with the development of more advanced strategies and systems. As one of the first countries to issue credit cards, Malaysia shows its resources in the Monthly Statistical Bulletin of Bank Negara: Monthly Highlights and Statistics in September 2020 that Islamic credit cards have a lower market share of 10.2% or RM3.7 billion of total credit card transactions (Çokgezen & Kuran, 2015). Since conventional credit cards are significantly more prevalent, it is intriguing to see why users utilize Islamic credit cards, whether seen from internal factors such as personal reasons or external factors attached to the quality of Islamic credit card services. Hence, based on the preceding explanation, it can be concluded that there are a wide range of views regarding the presence of Islamic credit cards as a form of payment instrument.

In light of this background, this research aims to examine the scientific literature’s perception of the growth of Islamic Credit Card. The following is the structure of this research. The second section provides a broad overview of the literature review. The procedure is explained in detail in the third part. Presented and reported in the fourth part are the findings of the descriptive study. The last portion of the paper is the concluding section, which offers a summary of the primary debate and the study’s conclusions.

LITERATURE REVIEW

Credit cards are a form of plastic money that give customers the option to make purchases now but defer payment until later. Similarly, an Islamic Credit Card (ICC) is a form of plastic money that allows its holders to buy now and pay for it later. On the other hand, its implementation follows Shariah’s ideals, goals, and principles (Jamshidi & Hussin, 2016).

There are primarily two drivers behind the demand for ICCs. First, Islamic credit cards (ICCs) were made available to fulfil customer demand for cards that could only be used for Islamic financial transactions. The prohibition of interest is the primary component of Islamic banking, and ICCs, in particular, comply with this requirement. This is an essential aspect of Islamic banking. Second, international credit centres are necessary for commercial banks because they assist them in diversifying their financial resources (Jamshidi & Hussin, 2013, 2016; Olson & Zoubi, 2008).

Islamic credit cards were examined differently regarding objectives and statistical analysis in these studies. The following is a discussion of these studies. Amin (2013) discussed that attitude, subjective norms and perceived financial cost significantly influence the intention to choose an Islamic credit card. Of these, attitude ranked first as an influential factor in explaining a person’s intention to choose an Islamic credit card. A study by Jamshidi and Hussin (2016) explains that intention to use and attitude towards using ICC are primarily determined by relative advantage, suitability, social influence, and satisfaction. Empirical results from a sample of 762 bank customers show that the intention to use Islamic credit cards is primarily determined by relative advantage, compatibility, customer awareness, satisfaction, and attitude (Jamshidi & Kazemi, 2020).
The research model proposed in this study was empirically validated using data collected from 397 Kish Island, Iran, bank customers. Findings The results showed that relative advantage and the compatibility significantly affect ICC loyalty. A significant relationship between ICC loyalty by bank customers and their decision to conduct positive word of mouth was also confirmed (Jamshidi & Kuanova, 2020).

**METHODOLOGY**

This study uses data from scientific journals published on Islamic credit card perception in Islamic economic research. The methodology used in this study is a qualitative method approach with a descriptive statistical literature study from 134 publications in the last nine years (2014-2023) related to the Islamic credit card. In qualitative descriptive investigations, researchers stay close to their data and the surface of words and events. Typically, qualitative illustrative designs consist of a diverse yet reasonable blend of sampling, data collecting, analysis, and re-presentation approaches (Sandelowski, 2000).

Meanwhile, bibliometric methods are used to quantitatively assess the productivity of scientific output (Derviş, 2019). Bibliometrics includes some descriptive statistics of citation data, and network analysis of authors, journals, universities, countries, and keywords based on citation and frequency analysis techniques. It supports the identification of research clusters, provides insight into current research interests and reveals trends for emerging topics in a field. Here I will use several steps namely (1) data collection through a systematic literature search, a thorough evaluation of the field with (2) network analysis which aims to identify authors, as well as collaborations. The next step is (3) bibliographic merging to identify research clusters and (4) cluster analysis to map the sub-cluster system. The last step (5) synthesizes the findings and finds potential research directions (Munim et al., 2020).

The data is Islamic credit card-themed paper publication. The development trend of the Islamic credit card perception theme is analyzed using VOSViewer software to generate keywords and top authors, and then to measure the sentiment map on the paper’s publication and public opinions on the theme of Islamic credit card perception, SentiStrength software is used, which is widely used in sentiment analysis research. Sentiment analysis is concerned with the automatic extraction of sentiment-related information from text. Although sentiment analysis mostly addresses commercial tasks, such as extracting opinions from product reviews, there is an increasing interest in the affective dimension of the social web, and Twitter in particular, but it can also address scientific tasks with the aim of determining the sentiment of a statement in a scientific paper on a particular topic where there is generally considerable debate. This software will assess each opinion expressed by respondents on a scale of -5 (very negative) to 5 (very positive). Each paper publication gets a specific value which is then averaged to determine the tendency of the sentiments of the researchers in brief sentiment analysis. (Thelwall et al., 2011).

**RESULT**

Meta-Analysis

![Figure 1: Number of Papers Theme Islamic Credit Card](image)
This section lists the number of papers that have been published on the topic of Islamic credit cards. There are 134 papers published over approximately nine years, from 2014 to 2023. Figure 1 shows the distribution of articles per year over the last nine years, ranging from 4 to 20 documents per year. Most papers on Islamic credit cards were published in 2020, 2022, and 2018, with up to fifteen articles published yearly. The year 2023 has the least number of publications, but this year there is still an opportunity to increase the number of publications as 2023 has yet to end.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Papers</th>
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<tbody>
<tr>
<td>2014</td>
<td>11</td>
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<td>2015</td>
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<td>16</td>
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<td>2022</td>
<td>17</td>
</tr>
<tr>
<td>2023</td>
<td>4</td>
</tr>
</tbody>
</table>

Based on the table and graph above, there is a tendency for more articles to be published with the theme of an Islamic credit card. All years have Islamic credit card-related publications and no publication vacancies. Every year it increases until it reaches the highest number of publications in 2020 with 20 papers. There is a decrease in 2023. However, because 2023 has not been completed until December, this data is still temporary, and it is still possible to add to the collection of publications in this research.

Bibliometrics Analysis

This section will show a graphical visual mapping of papers on the theme of Islamic Credit Cards using bibliometrics, a research technique used to provide network structures that illustrate the relationship of topics in a particular field of science and how these topics have developed over the years. In addition to presenting the issues, it also discusses the authors who produced papers on these topics.

The author's bibliometric mapping can also be acquired using the VOSViewer program, as demonstrated in Figure 2 below. The more articles the author published in Islamic Credit Card-themed papers in their study collection, the larger and brighter the circle of light indicated by the author’s name. The item (label) designated the same as the visible item is the cluster density view. Depending on the item’s density at the time, each item dot has a different colour. This figure shows that the colour of the dots on the map is determined by the number of objects linked to each other. This section is precious for understanding the bibliometric map's overall structure by focusing on which areas of the item are relevant to the analysis. The result interprets the writers who have written the most publications using this worksheet.
Based on these findings, a density map is produced, which results from an analysis of all published Islamic credit card articles, both related and unrelated. When sorted by author, there are many clusters. The authors who have published the most publications about Islamic Credit cards are Dariyoush Jamshidi, Hussin Nazimah, and Zaimy Johana Johan.

Figure 3 above illustrates the findings of the network visualisation of the co-word map for Islamic Credit Card-themed publications. This mapping shows several keywords that often appear in Islamic credit card-themed papers in the data collection studied and their relationship to other keywords in two clusters, namely:
Cluster 1 in red consists of 33 keywords: accordance, application, article, card, client, condition, contract, difference, existence, fee, financing, form, interest, islamic law, keywords, payment, person, perspective, practice, principle, problem, provision, riba, rule, security, sharia, sharia credit card, system, time, transaction, type, world.

Cluster 2 in green consists of 26 keywords: acceptance, adoption, area, attitude, consumer, conventional credit card, data, design methodology approach, effect, factor, isic, impact, importance, intention, Islamic banking product, knowledge, Malaysia, model, muslims, originality value, practical implication, questionnaire, research limitation implication, respondent, theory, user.

Each cluster has a relationship between one keyword and another so that each group can describe the theme of the topic that is always discussed in the article on Islamic Credit Card. Based on the keywords above, Cluster one discusses the view of sharia compliance aspects of the use of Islamic credit cards, and cluster two explains the motivation or factors that influence customers in using Islamic credit card service products.

The coloured circles are used to classify keywords into two different groups. The following mapping results will be obtained by grouping by publication year using red and green colour intervals. Darker colours indicate longer publication years, while lighter colours indicate shorter years. This information can be used to identify keyword trends. From 1970 to 2023, the bibliometric study revealed most card, transaction, and data keywords. However, Islamic credit card, bill, and client were the most commonly used keywords recently or in 2020. The large circles that appear most frequently emphasize the terms using the same data as the previous two figures. In contrast, the line relationship between terms illustrates how closely they are related.

So from the explanation of the data above, it can be concluded that the direction of research that can be further explored is related to motivation or factors that influence customers in using Islamic credit card service products because the number of keyword usage in the cluster is less than the first cluster, besides that the keywords that began to appear frequently in the last year were a credit card, fee, and client, this can also indicate that research related to the effect of fees charged from Islamic credit cards on demand for Islamic credit cards from customers can be the direction of future research.

Sentiment Analysis

The author attempts to estimate the sentiment toward Islamic credit cards in research journals. Sentiment analysis is a study widely used to measure public opinion. The analysis used 134 research journals on the Islamic credit card from 2014 to 2023 as a secondary data source. SentiStrength, a tool for analyzing data acquired from journal publications, was employed in this study.
The opinion findings were classified into five types of ratings based on journal papers connected to Islamic credit card, including those with high ratings with scores of 5, positive (very good), positive (good) the score between 1-4, neutral (neutral) with a score of 0, negative (bad) reaches score -1 until -4, and negative high (very bad) with a total score of -5. The following figure shows the findings of sentiment analysis on Islamic credit card, which are classified into five categories.

**Sentiment Analysis Category Percentage**

![Sentiment Analysis Category Percentage](image)

**Figure 5: Sentiment Analysis Category Percentage**

We can see from the figure above that the presence of Islamic credit cards has a very positive (high positive) and very negative (high negative) of 0%, followed by a good (positive) sentiment of 34%, a negative (negative) sentiment of 33%, and a very bad (high negative) and very good (high positive) sentiment of 0%. The remaining 50% have a neutral (neutral) sentiment.

The sentiment results above are obtained from journal publications about Islamic credit cards. Then the abstract part of the written text is sorted from negative (-5) to positive (5) intervals, with a value of 0 being neutral. The opinion score of the sentences submitted by the researcher in his journal is calculated by adding the sentiment scores of each word listed in SentiStrength. The sentiment of published journals about the Islamic credit card that is positive and tends to be optimistic in dealing with the presence of Islamic credit cards and encouraging the growth of Islamic credit cards is referred to as good sentiment (positive). Meanwhile, negative (bad) sentiment refers to published journals’ unfavourable views on the Islamic credit card, which are pessimistic about the future of Islamic credit cards and claim that they cannot be used extensively for various reasons. In addition, the results show that most of the related literature is more neutral in addressing the existence of Islamic credit card. The number of positive responses was found to be more significant than negative.

**DISCUSSION**

Based on the findings of the bibliometric study, it can be concluded that Islamic credit card research continues to increase each year, with keyword patterns that are constantly changing and that writers are prolific in their research on Islamic credit card. The bibliometric mapping gives an overview of the trend conditions of these issues to show how far scientific study in the Islamic credit card area has progressed as an example for future researchers who will write on this theme.

Table 2 summarizes the research findings, which cover the main characteristics that influence public sentiment, favorably, neutrally, or negatively, based on 134 data articles published on the topic of Islamic credit card over the past nine years.
The existence of a fatwa foundation regarding Islamic credit cards. Neutral sentiment dominates with a percentage result of 41%. This data shows that there is still a knowledge gap regarding Islamic credit cards. It is a challenge for the various elements involved in the field to explain better what is still biased about Islamic credit card laws and practices.

Many studies on Islamic credit cards have been conducted based on literature review. Sentiment analysis provides an overview of the responses and opinions regarding Islamic credit cards. Islamic credit cards, in terms of their use, are allowed in several countries with sharia provisions and state regulations, which is one of the reasons behind the positive sentiment towards Islamic credit cards. The issuance of fatwa No.54/DSN-MUI/X/2006 concerning Islamic credit cards is the basis for the permissibility of using Islamic credit cards in Indonesia, in the substance of the fatwa states that the opinion of leading scholars state that credit card transactions can be categorised in kafalah, wakalah, hawalah, qardh, and ijara contracts. These contracts are legally permissible, and their use is tailored to the transaction (Harahap et al., 2019). In addition, the positive sentiment toward Islamic credit cards is also borne out of its role as a response to the ever-growing competitive challenges of the banking industry, and this is demonstrated by how responsive Islamic banks in Turkey have been to market pressures related to deposit security, they pointed out that, if only they wanted to remain competitive with their conventional rivals, they would seek to incorporate credit cards into their operations. İhlas Finans became the first Islamic bank in Turkey to issue credit cards in January 1998 (Çokgezen & Kuran, 2015; Zaman, 1998).

Positive sentiment is also born from the enthusiasm of people who do not want to use conventional cards and want to implement sharia values in banking as a whole, including the performance of Islamic credit cards. This is shown by a study that examines the intention of Muslims and non-Muslims to have an Islamic credit card (SCCC), and the results are For Muslims, attitudes, subjective norms, sharia compliance, knowledge, and religiosity have a significant positive effect. Meanwhile, for non-Muslims, only attitudes and subjective norms are significantly positive towards the intention to have SCCC (Johan et al., 2021). In addition, a study involving 102 respondents in Selangor, Malaysia, showed that benefits and religious motivations also significantly influence the use of Islamic credit cards (Abdul Razak et al., 2019).

However, researchers still have many criticisms regarding the application of Islamic credit cards. The sentiment analysis results show that the negative sentiment is at 25%. This data shows negative perceptions of Islamic credit cards are still quite a lot. Dr. Daud Bakar, a professor at IIUM Malaysia, doubts the Islamicity of credit cards because it is based on the analogy that credit cards are the same as encouraging people to go into debt. In Islam, going into debt is one of the things that is not recommended. Therefore, the Prophet always prayed that he was not in debt. Whatever contract is contained in a sharia credit card does not make the law permissible because the credit card itself is a tool that facilitates a person to get into debt (Fatoni, 2022).

The existence and use of Islamic credit cards as one of the Islamic bank service products intended for consumer financing activities also greatly influence the consumption transaction activities of the community, especially the Muslim community. Because in Islamic credit cards, there is no control system to ensure whether cardholders use their cards to spend on halal goods, and card usage limits cannot make holders not consumptive. At the same time, this is contrary to sharia principles because the consumptive nature emphasizes more on self-satisfaction in fulfilling momentary material fields (Q.s. al-Jāsiyā [45]: 18) (Kristianti, 2014). The sustainability of transactions using Islamic credit cards also increases the potential for delays in making bill payments. One form of protection issued is the mechanism for providing ta’widh or compensation to parties whose rights are violated. In practice, the

<table>
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<th>Table 2: Key Factor Influencing Sentiment</th>
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<td><strong>Positive</strong></td>
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<tr>
<td>The existence of a fatwa foundation regarding Islamic credit cards</td>
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<td>Strengthening competitiveness in the banking industry</td>
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<td>Motivation towards the application of Islamic values</td>
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<td><strong>Negative</strong></td>
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<td>Decrease in sharia compliance values</td>
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<tr>
<td>The ease of debt that results in a consumptive attitude</td>
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</table>

The results of this study found the level of sentiment analysis of various published writings in assessing opinions about the existence of Islamic credit cards. Neutral sentiment dominates with a percentage result of 41%. This data shows that there is still a knowledge gap regarding Islamic credit cards. It is a challenge for the various elements involved in the field to explain better what is still biased about Islamic credit card laws and practices.
amount of the ta'widh value is known at the beginning of the contract, and the amount of the ta'widh fee is not fixed. The ta'widh cost and the nominal amount are determined according to the length of late payment and the type of card used by the customer. So that the longer it takes to collect from customers, the more ta'widh fees will increase. This situation is not following the provisions of Ta'widh according to Fatwa DSN MUI Number 43 / DSNUMUI / VIII / 2004 concerning Ta'widh because, in this case, the Islamic Bank determines the amount of the ta'widh fee based on the loss that is expected to occur even though the amount of the ta'widh fee should be following the value of actual losses that must be experienced (fixed cost) not losses that are expected to occur (potential loss) by the Islamic Bank (Elsanti, 2017).

The results of this sentiment analysis indicate differences of opinion indicated by the scientific literature. This study shows the comparison level of various sentiment categories from the scientific literature and public opinion.

CONCLUSIONS

The development map of Islamic Credit-themed research is still growing and increasing. When this research was conducted on March 2023, the Islamic credit card theme was divided into 2 clusters in scientific research. Cluster 1 consists of 33, and cluster 2 consists of 26. The most popular keywords are card, transaction, and data.

The results of sentiment analysis research on the development of Islamic credit cards show many different types of sentiments. The results show that the scientific literature has a very positive (high positive) sentiment and a very negative (high negative) of 0%, then a positive (good) sentiment of 34%. While negative sentiment was 25%, the rest had neutral sentiment at 41%. The research finds that a clear fatwa or regulation regarding the permissibility of Islamic credit cards indicates positive sentiment. The presence of Islamic credit cards also answers the challenges of today's competitive banking products. The motivation of the community to apply sharia values in economic activities becomes a reason to support the presence of Islamic credit cards amid the mass offerings of conventional credit cards in society.

In addition, debates also still arise because of the imperfection of sharia compliance in the application of Islamic credit cards, so this is a concern for practitioners and also the supervisory board in each bank to review the contracts that have been carried out and be more careful in implementing agreements in Islamic credit cards. Furthermore, the impact of consumptive behavior that is increasing because buying goods and services using Islamic credit cards also gives negative sentiment in the community, so the socialization of Islamic credit card products is expected to provide more understanding about the use of credit cards that are wiser and follow Islamic values.

This study aims to discover researchers' sentiments toward Islamic credit cards and an overview of research trends with this theme in recent years. Although research has been carried out using bibliometric analysis and sentiment analysis specifically to give readers an overview of the most critical data on this theme, the results presented are still dynamic. They may change as new trends emerge as the variables increase in the future.

REFERENCES


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