

## Bibliometric Analysis of The Effect of Discounts in E-Commerce on Increased Sales of Small and Medium Enterprise Products

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### ABSTRACT

As digital technology advances, internet shopping, or e-commerce, has grown in popularity and offers SMEs fantastic chances to boost sales. Offering discounts like price cuts, flash sales, and rebates is one tactic that's frequently employed to draw customers. In order to investigate trends and the effect of discount tactics on boosting sales of SME products, this study employs bibliometric analysis of Google Scholar data. According to the findings, there are 500 publications with four primary discussion groups: the usage of Shopee and other digital platforms, digital marketing tactics, the impact of promotions on customer behavior, and the function of promotions in aiding MSMEs during the pandemic.

**Keywords:** E-commerce; Discounts; Digital promotion; MSMEs; Sales.



## INTRODUCTION

Advent of e-commerce has simplified and expedited the purchasing and selling process by enabling online transactions without time or location constraints. As internet usage rises and people's lifestyles change, the number of e-commerce users in Indonesia keeps increasing. Micro, Small, and Medium-Sized Enterprises (MSMEs) have a fantastic opportunity to grow their market and boost product sales in this scenario.

MSMEs play an important role in the Indonesian economy, but still face various obstacles, especially in terms of promotion and competitiveness. Through e-commerce, MSME players can utilise various digital marketing strategies, one of which is offering discounts to attract buyers.

Programmes such as flash sales, discount vouchers, or cashback have proven to be effective in attracting consumers and encouraging purchasing decisions.

Discounts are an effective strategy because they give the impression of lower prices and benefits for buyers. Consumers tend to make purchasing decisions more quickly when there are price reductions or limited promotions. For MSME players, this strategy can help increase sales, introduce products to a wider market, and strengthen consumer confidence in their brand.

However, discounts also need to be regulated appropriately so as not to reduce profits or damage the image of the product. Therefore, it is important to examine the extent to which discounts on e-commerce platforms can affect the increase in sales of MSME products. This study aims to determine the effect of discount strategies in e-commerce on increasing sales of MSME products, as well as to provide an overview of how digital promotion can help the development of small businesses in the digital era.

## LITERATURE REVIEW

Discounts in e-commerce can be explained through demand theory, which states that a decrease in price will increase demand. Discounts serve as a price reduction strategy that can attract consumer interest. Consumer behaviour theory, particularly the Stimulus-Organism-Response (S-O-R) model, also explains that discount promotions act as stimuli that influence consumer perceptions and emotions, thereby encouraging purchasing decisions.

Prospect Theory asserts that consumers tend to respond positively to benefits such as price reductions, so discounts create satisfaction and encourage purchases. In addition, Signaling Theory explains that discounts can be a signal of value to consumers, but if used excessively, they can lower the perceived quality of the product. Meanwhile, perceived value theory states that consumers will buy a product if they feel that the benefits received are greater than the costs incurred. Based on these theories,

discounts can increase perceived value and purchasing interest, thereby having a positive impact on product sales, including MSME products on e-commerce platforms.

### **Previous Research Findings**

Previous research shows that discounts have a positive effect on increasing sales in e-commerce. Price reductions have been proven to attract consumers' attention, increase purchase intent, and encourage impulse buying, especially through programmes such as flash sales, cashback, and vouchers.

Research also found that SMEs that utilise e-commerce promotional features experience a significant increase in sales, although the effect tends to be short-term. Other factors such as store reputation, customer reviews, and product quality also influence the success of discount strategies.

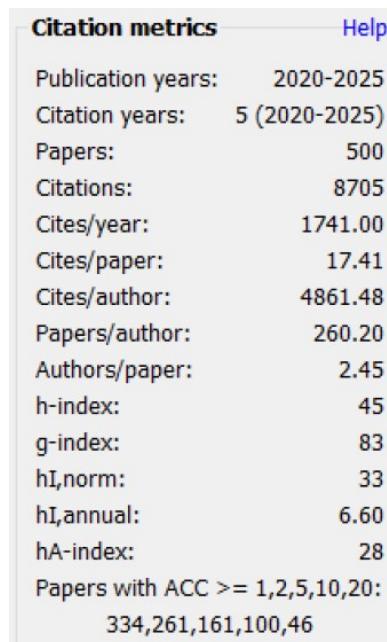
During the pandemic, discounts have proven to help MSMEs maintain sales and attract new customers. However, discount strategies need to be balanced so as not to damage the image of the product. Overall, previous research confirms that discounts are an effective marketing strategy to increase MSME product sales in e-commerce, especially when supported by good quality and consumer trust.

## **RESEARCH METHODS**

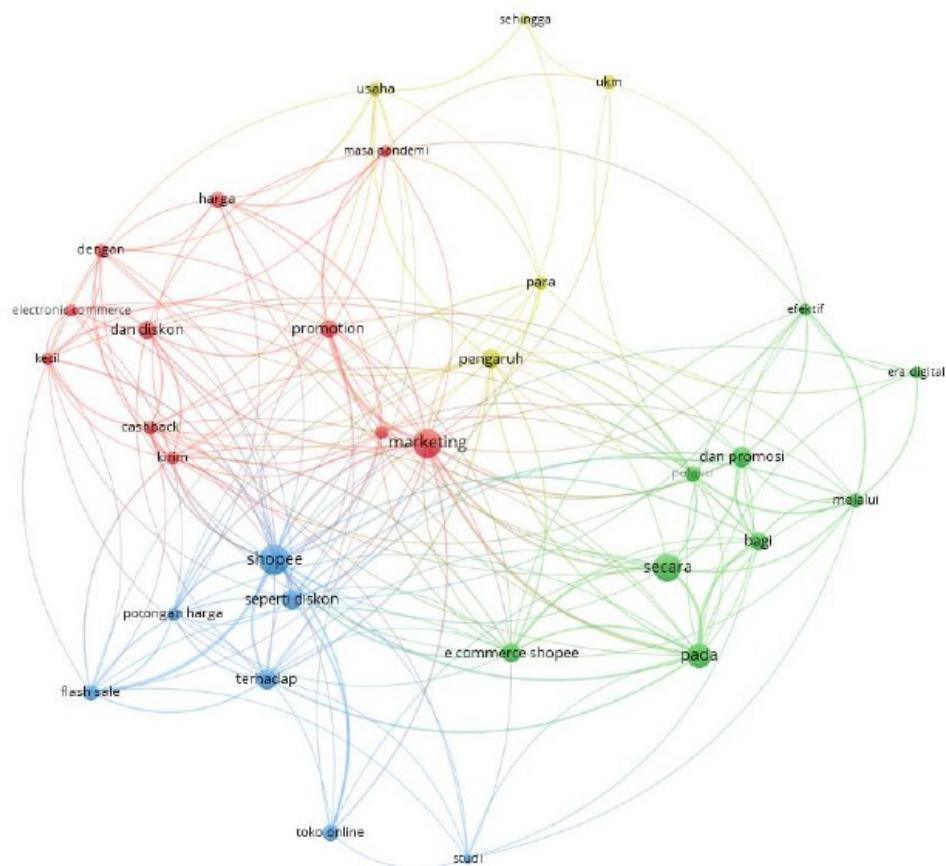
This study utilised a bibliometric analysis approach conducted in two stages. In the first stage, Harzing's Publish or Perish software was used to search and calculate the number of relevant journal publications within the last five years (2020–2025) from Google Scholar. Next, the second stage utilised VOSviewer to map the relationships between topics, publication time frames, and the density of research themes. The keywords used in the data search were "The effect of discounts on e-commerce on increasing MSME product sales.

## **RESULTS**

The results of bibliometric analysis show that there are 500 publications with 8,705 citations and 1,741 cites/years discussing the Effect of Discounts in E-Commerce on Increasing Sales of MSME Products (Figure 1).

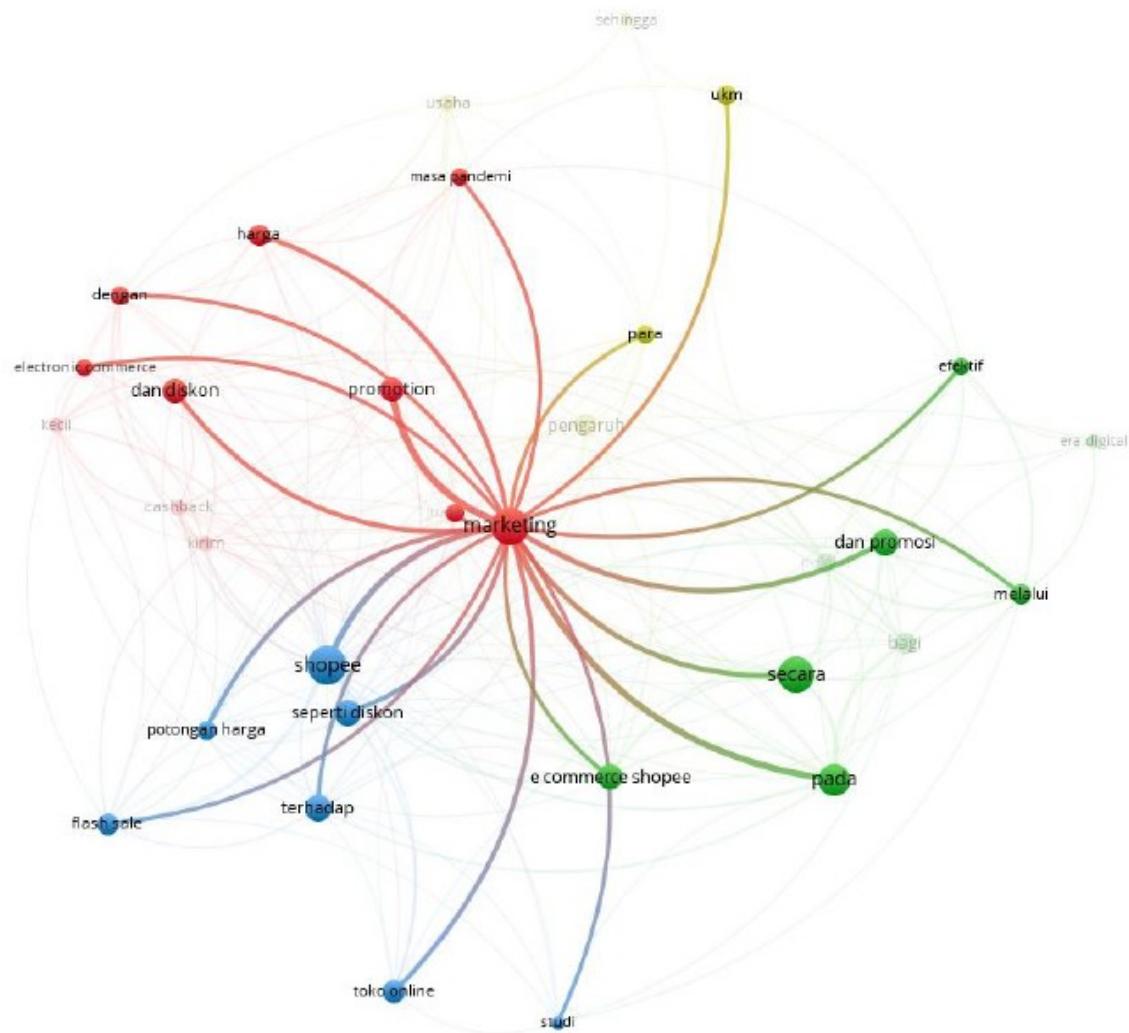


**Figure 1. Data on the Number of Journals, Citations and Cites/year**



**Figure 2. Visualisation of the relationship between topics related to the effect of discounts in e-commerce on increased sales of MSME products**

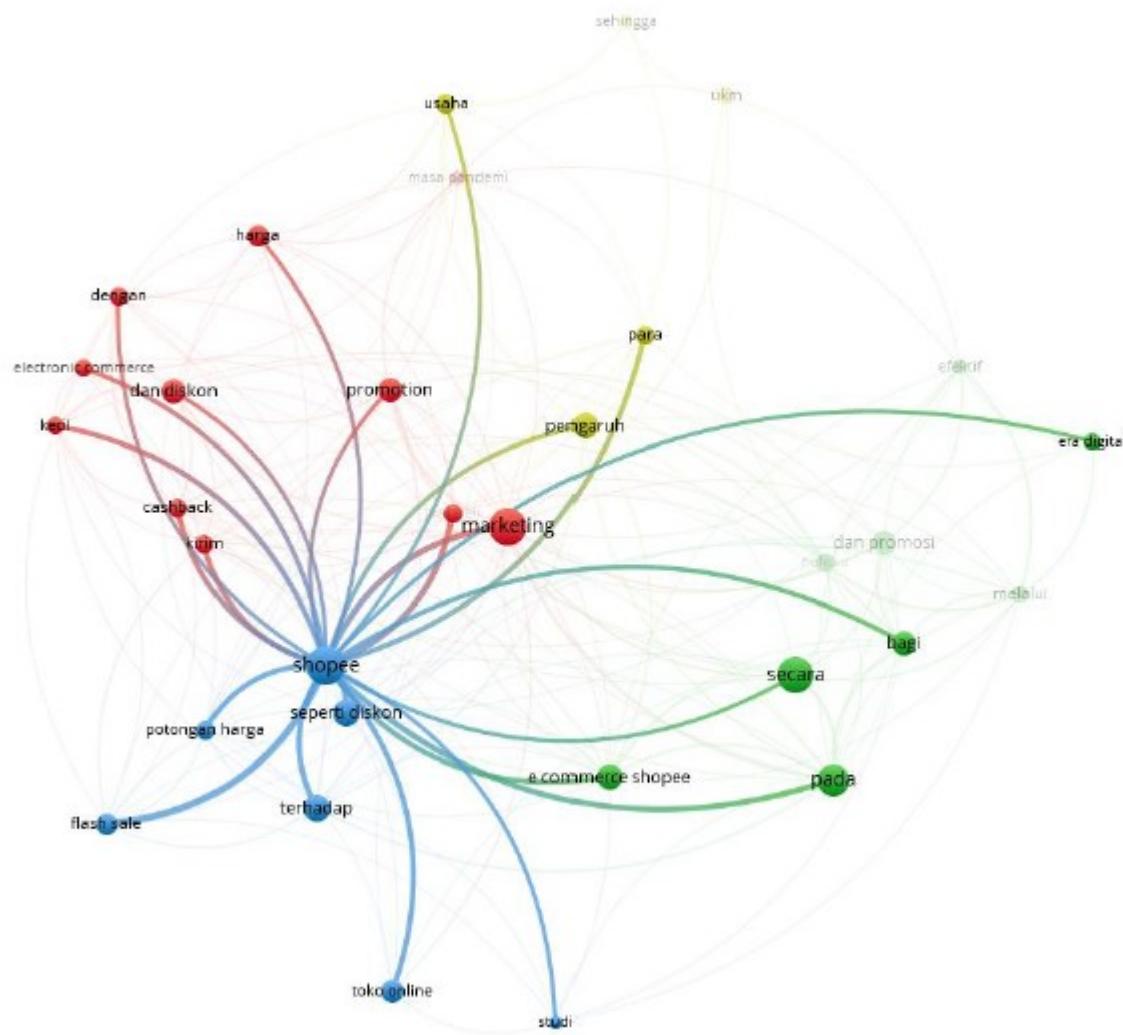
Figure 2 shows that there are four main clusters. The red cluster generally discusses marketing and promotion strategies through discounts, cashback, and price reductions in e-commerce activities. The blue cluster focuses more on e-commerce platforms such as Shopee and the implementation of promotional strategies such as flash sales and price reductions that affect sales (Figure 2). The green cluster discusses the effectiveness of digital promotion and its influence on consumer behaviour in the digital era. The yellow cluster focuses more on the role of digital promotion, including discounts, in the development and sustainability of MSME businesses, especially during the pandemic.



**Figure 3. Visualisation of the relationship between topics related to the effect of discounts on e-commerce on increasing MSME product sales**

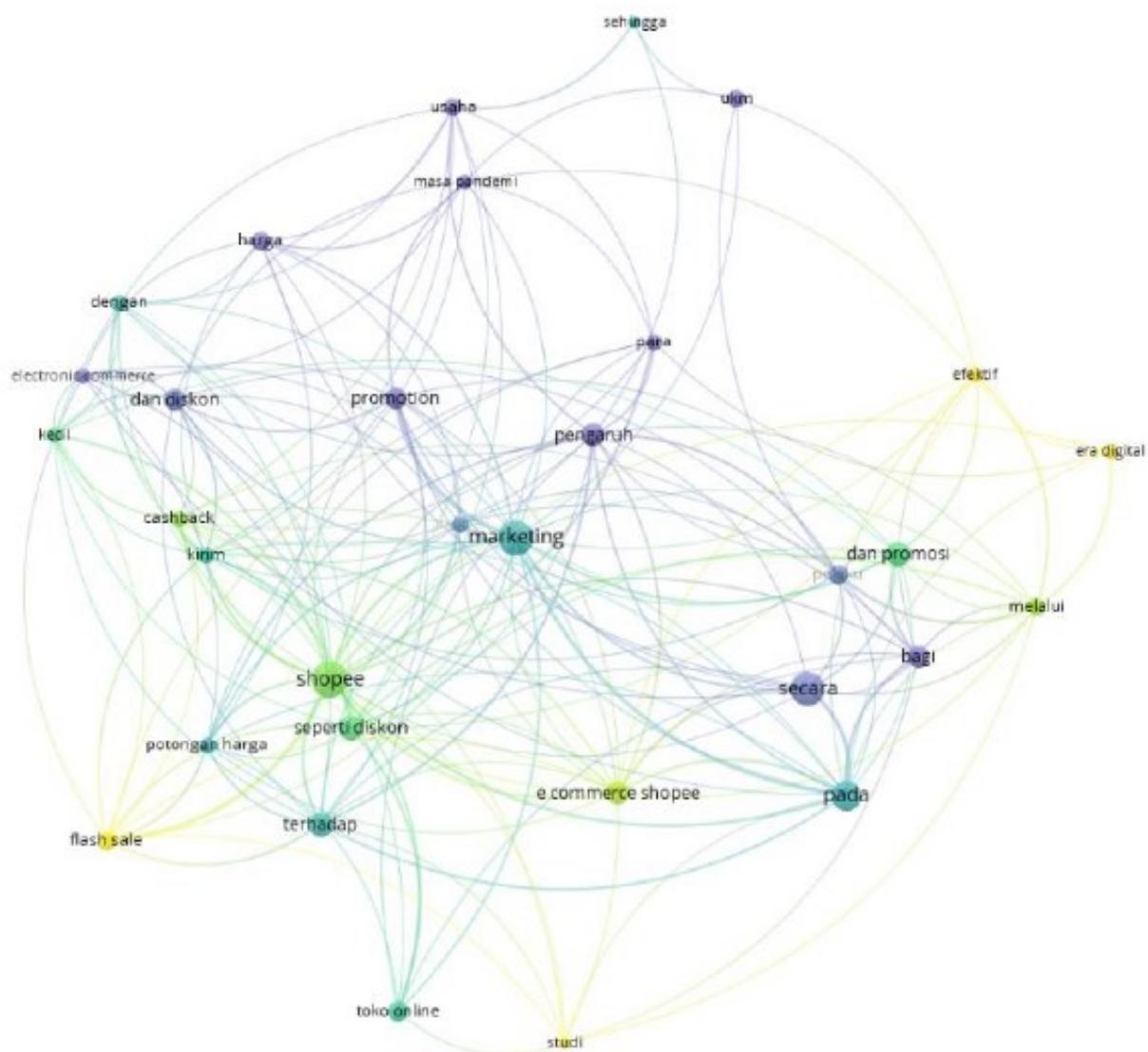
The visualisation shown in Figure 3 indicates that several studies have linked marketing strategies with the implementation of promotions such as discounts, cashback, and price reductions on e-commerce platforms to increase MSME product sales. The word "marketing" appears to be central to the connection

with terms such as promotion, discount, price, and Shopee, which indicates the focus of research on digital marketing strategies. Furthermore, research related to the influence of social media on viral marketing strategies has not been widely conducted in the last five years, so this topic still has great potential to be developed further as a direction for future research.



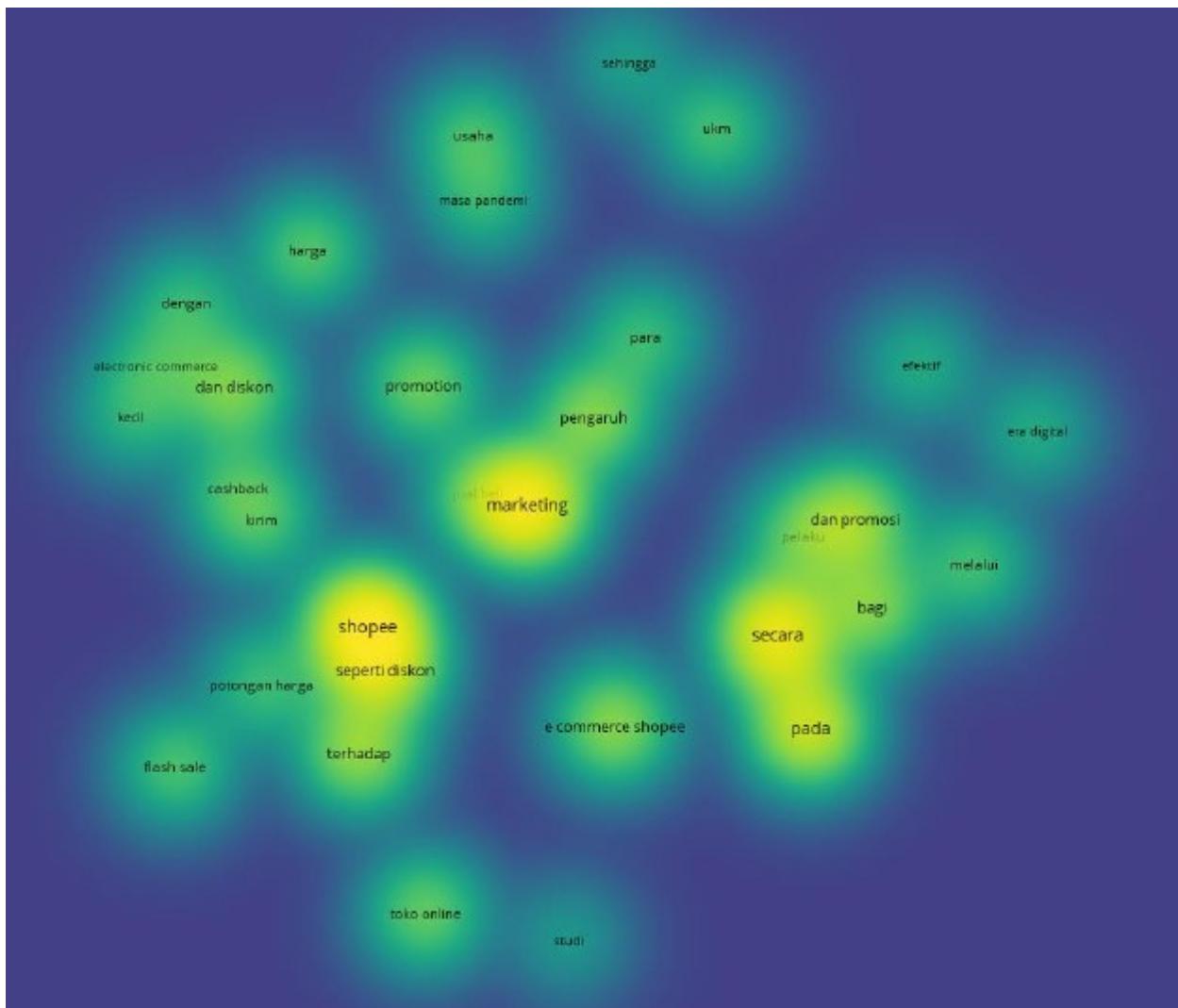
**Figure 4. Visualisation of the relationship between topics related to the effect of discounts in e-commerce on increased sales of MSME products**

The visualisation in Figure 4 shows that several studies have been conducted linking the impact of discounts on e-commerce to increased sales of MSME products, especially on the Shopee platform. The blue cluster shows a strong relationship between keywords such as Shopee, discounts, flash sales, price reductions, and online stores. This indicates that the most discussed research topics are related to promotional strategies in the form of discounts and flash sales used by Shopee to increase consumer appeal and support MSME sales in the digital era.



**Figure 5. Timeline Visualisation Related to the Impact of Discounts on E-commerce on Increased Sales of MSME Products**

Figure 5 shows a timeline visualisation of research trends over the past five years. Based on the timeline visualisation, several recent studies have focused on topics related to the effectiveness of digital promotion, the application of marketing strategies in the digital era, and the impact of e-commerce platforms such as Shopee on increasing MSME product sales.



**Figure 6. Visualisation of Topic Density Related to the Impact of Discounts on E-commerce on Increased Sales of MSME Products**

Topics that are rarely discussed in research can be seen in Figure 6. The lighter the colour shown in the figure, the less the topic has been discussed or, in other words, the less research has been conducted on the topic. The figure shows that topics such as the digital era, effectiveness, and flash sales have been rarely discussed in journal articles indexed on Google Scholar in the last five years.

## CONCLUSION

According to the findings of bibliometric analysis, there are 500 articles that mention viral marketing with 8,705 citations and 1,741 citations/year. Four groups can be identified: 1) groups talking about marketing and promotion tactics like price reductions, cashback, and discounts in e-commerce activities; 2) groups talking about e-commerce sites like Shopee and how to use promotional tactics like flash sales and discounts to boost sales; 3) groups talking about the efficacy of digital promotion and how

it affects consumer behavior in the digital age; and 4) groups talking about how digital promotion helps MSMEs grow and survive, particularly during the pandemic. Research topics that are still rarely published in Google Scholar indexed journals include flash sales, the digital era, and effectiveness, indicating that studies on the effectiveness of digital promotion strategies on e-commerce platforms and their impact on increasing MSME sales still have great potential for further development.

## **SUGGESTION**

This study shows that providing discounts on e-commerce platforms has a positive effect on increasing sales of MSME (Micro, Small, and Medium Enterprises) products. Discounts make prices more attractive and encourage consumers to make purchases, helping MSMEs expand their markets and increase revenue. However, offering discounts too frequently can lower the product's image and reduce profit margins.

Therefore, MSMEs are advised to apply discount strategies wisely, such as during special promotional events. In addition, improving product quality and customer service is important to maintain customer loyalty even when no discounts are offered. E-commerce platforms are also expected to continue supporting MSMEs by providing effective and user-friendly promotional features.

## **CREDIT AUTHORSHIP CONTRIBUTION STATEMENT**

**Septian Dwi Nugroho:** Conceptualization, Data curation, Formal Analysis, Project administration, Resources, Software, Visualization, Writing – original draft, and Writing – review & editing. **Siti Mujanah and Achmad Yanu Alif Fianto:** Supervision and Validation.

## **DECLARATION OF COMPETING INTEREST**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## **DATA AVAILABILITY**

Data will be made available in request.

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