

A Review of E-commerce Anchor Research

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ABSTRACT

As a new business model emerging in the rapid development of technology, e-commerce live streaming not only promotes the deep integration of digital technology and the real economy, but also has significant historical value and far-reaching impact on the formation of new e-commerce economic models. E-commerce anchors have become a new business growth engine for e-commerce live streaming enterprises. During the live streaming, e-commerce anchors rely on their strong professional knowledge or authority in the product field to provide consumers with cost-effective information and help them make purchasing decisions. Although scholars have conducted various studies on e-commerce anchor, there are few studies analyzing relevant research literature from a statistical perspective. Based on this background, this study used bibliometric method and adopted CiteSpace 6.1 R6 analysis software to analyze 82 literature related to "e-commerce anchor" in Web of Science, revealing the research rules of scholars on this topic and providing important references for researchers to understand this field.

KEYWORDS

E-commerce anchor; Bibliometric method; Trends in paper publication; Keyword clustering analysis; Research on related topics

1. INTRODUCTION

In recent years, with the rapid increase in the scale of e-commerce live streaming development, e-commerce anchors have attracted attention as the most important link connecting consumers and merchants (or products). E-commerce anchors have successfully integrated the professionalism of internet celebrity anchors and the huge customer base of e-commerce platforms, creating countless miracles in just a few years since their inception. E-commerce professional anchors, represented by "Taobao Sister" Viya and "Lipstick Brother" Li Jiaqi, have made "selling 150 million yuan in 5 hours" and "selling 15000 lipsticks in 5 minutes" no longer an unattainable sales myth with their excellent sales skills and refined operations of the professional team behind them. Therefore, it is necessary to organize the research overview of e-commerce anchor. This article mainly reviews the publication trends, keyword clustering analysis, and related topic research of e-commerce anchor.

2. RESEARCH METHOD

This article adopts the bibliometric method and uses the bibliometric tool software CiteSpace 6.1 R6 to conduct visual analysis on the relevant core literature. This part analyzes the trend of literature publication, extracts keywords from literature titles, abstracts, keywords and citations, and then conducts keyword clustering and keyword emergence detection to explore the hot changes and development trends in international research on e-commerce anchors.

In order to have a more comprehensive understanding of the current academic research on the topic of "e-commerce anchors", this section uses the core collection of the Web of Science database as the data source. On the Web of Science search page, use the advanced search method, the subject is "e-commerce anchor" or "e-commerce live streamer" or "e-commerce influencer" or "live-streaming Sales Presenter" or "shopping livestreamer" or "livestreamer", the document type is "article " or "review ", the language is "English ", and the publication time is not limited. By screening the literature and eliminating irrelevant literature and duplicate literature, a total of 82 published academic papers were finally identified for visual analysis.

3. TRENDS IN PAPER PUBLICATION

Scholars' research on "e-commerce anchors" began in 2018, and the first scholar to study e-commerce anchors was Zhao et al. (2018), The title is "Determinants of live streamers' continuance broadcasting intention on Twitch: A self-determination theory perspective". Zhao's study endeavored to ascertain the determinants compelling live streamers to continue broadcasting on Twitch, a live streaming video platform. The annual publication status of scholars' research on "e-commerce anchors" is shown in Figure 1.

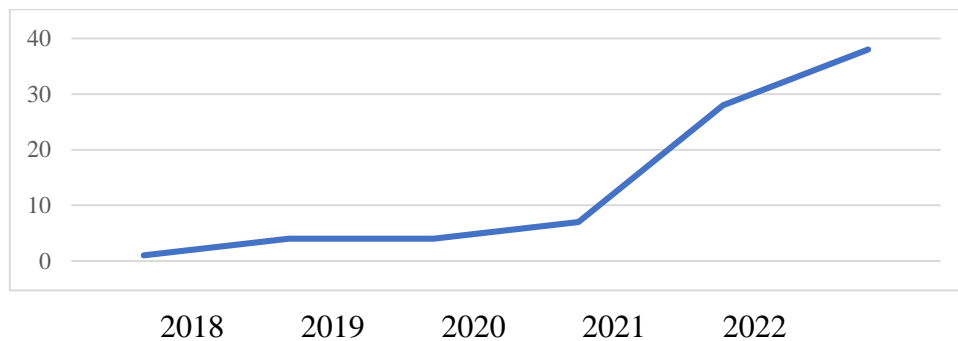


Figure 1. Web of Science Article Trend Chart on "E-commerce Anchors"

Note: This figure is drawn based on data accurately retrieved from the Web of Science database. The search was conducted on April 11th, 2024.

From the total number of literature, scholars have not published many articles on the research of "e-commerce anchors", with a total of only 82 articles in the past six years. The number of articles published in the early stage was small, but it is in a stable growth stage. The number of articles published has significantly increased in 2022, reaching 28, and reached a peak of 38 in 2023. This indicates that research on e-commerce anchors has entered a period of rapid growth since 2022.

From the perspective of national or regional distribution, research on "e-commerce anchors" is mainly distributed in the People's Republic of China, the United States, India, Australia, and South Korea, with the People's Republic of China having the most, accounting for more than half. Please refer to Table 1 for details.

Table 1. Statistical Table of Top 5 Countries/Regions for Web of Science Papers on "E-commerce Anchors"

Serial Number	Countries/Regions	number	proportion
1	PEOPLES R CHINA	39	51.52 %
2	USA	12	15.16 %
3	INDIA	5	6.06 %
4	AUSTRALIA	4	5.50 %
5	SOUTH KOREA	4	5.50 %

Note: This figure is drawn based on data accurately retrieved from the Web of Science database. The search was conducted on April 11th, 2024.

From the above table, it can be seen that China has the highest number of published papers in the word, with 39 papers accounting for 51.52%, followed by the United States with 12 papers accounting for 15.16%, while other countries have a relatively small proportion, each not exceeding 10%.

4. KEYWORD CLUSTERING ANALYSIS

Using CiteSpace 6.1.R6 software, 82 documents were analyzed. No setting a time range, Node Type as Keyword, algorithm as Log-Likelihood Ratio (LLR Logarithmic Maximum Likelihood Ratio), and keyword clustering map (as shown in the Figure 2) can be obtained. The Mean Silhouette value is an index to measure the homogeneity of the entire cluster members. The larger the value, the higher the similarity of the cluster members. The keyword co-occurrence map shows that there are 168 nodes and 668 connections, the network density is 0.0476, the Q value is 0.5840 (>0.3), and the MS value is 0.8288 (>0.7). These data show that the keyword cluster map has a reasonable structure and good homogeneity.

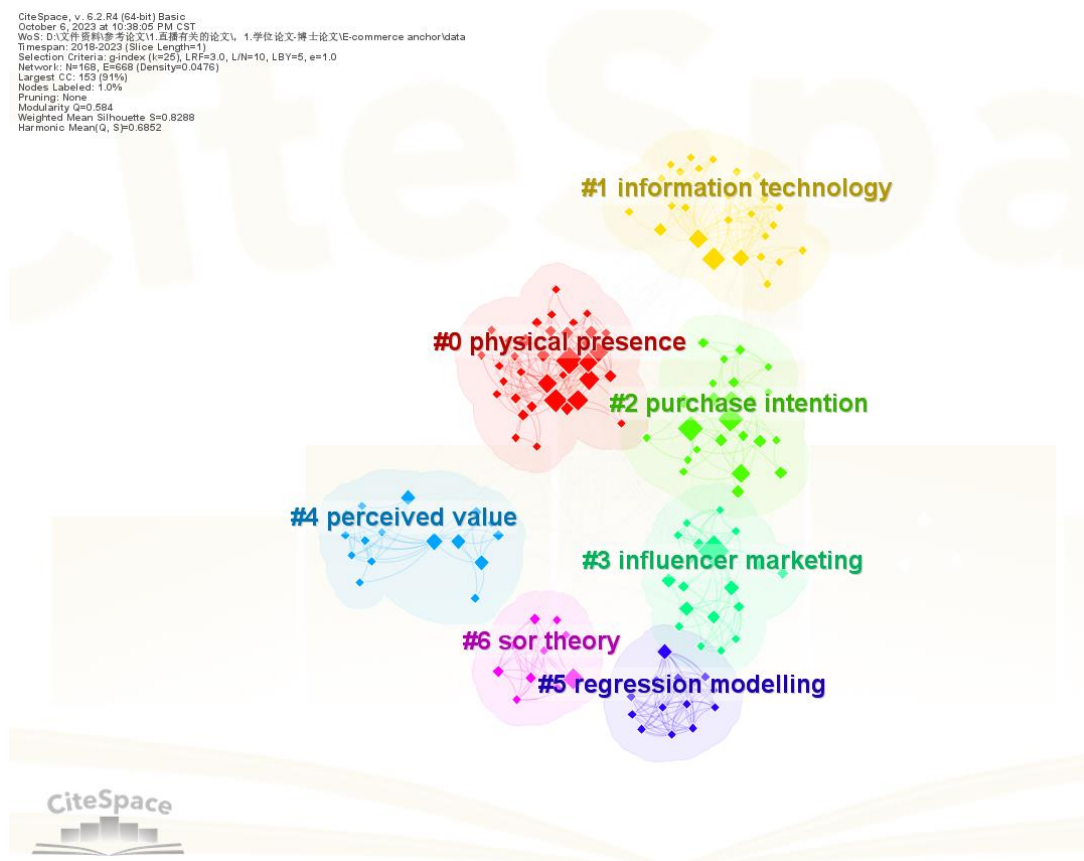


Figure 2. Keyword Clustering Map of E-commerce Anchors

Note: This figure is drawn based on data accurately retrieved from the Web of Science database. The search was conducted on April 11th, 2024.

As can be seen from the figure above, these 82 papers' keywords mainly focus on the following categories: physical presence, information technology, purchase intention, influencer marketing, perceived value, regression modeling, SOR theory. The following will select the words with the higher concentration for research review.

Regarding the aspect of physical presence, Xu et al. (2021) studied the factors that affect consumers' purchasing behavior in live shopping of tourism products. The research results showed that physical

presence factors effectively alleviate unsold sales (i.e., unsold products), while social presence itself cannot fully stimulate significant improvement in sales results. Ma et al. (2022) constructed a conceptual model of purchase hesitation based on remote presentation and trust theory from the perspective of participant interaction, to study the factors affecting consumer purchase hesitation in the context of live streaming. This study indicates that interactions between anchors and consumers, as well as between consumers, have a positive influence on the social and physical presence in live streaming commerce.

Regarding information technology, Fu et al. (2021) utilized information technology to propose a highly feasible virtual avatar application solution in live streaming scenarios for e-commerce anchors, and developed a dedicated virtual avatar design platform called "Virtualfull", allowing ordinary users to create their own virtual avatars. Li et al. (2021) developed an AI specifically designed for live sales in the e-commerce field based on computer graphics and vision, natural language processing, and speech recognition and synthesis. This AI avatar can provide three key functions: custom appearance, product broadcasting, and multimodal interaction. Shi et al. (2022) proposed a new model for precise marketing classification of agricultural products on e-commerce live streaming platforms using clustering technology.

Regarding purchase intention, Luo et al. (2021) found that the persuasive power of anchor language style can lead to changes in consumer purchase intention. The persuasive style of appealing to personality language has the greatest positive influence on live product sales, but the logical language style has the greatest negative influence on live product sales. Ma et al. (2023) studied the influence mechanism of anchor language demands, rational demands, and emotional demands on user purchase intention. The research results indicate that the language demands of anchors are positively correlated with self brand consistency, and self brand consistency is positively correlated with purchase intention. The research results of Zhang et al. (2023) indicate that the interactivity, entertainment, promotional prices, and opinion leaders of live streaming have a significant influence on consumers' cognition and emotions. At the same time, cognition and emotions also have a significant influence on consumers' purchase intention. Opinion leaders have the greatest influence on consumers' purchasing intention. From this, it can be seen that studying the influence of e-commerce anchors on consumer purchasing intention is currently a popular topic.

Regarding perceived value, Ma et al. (2023) explored the mediating role of perceived value in the relationship between consumer anchor interaction, consumer consumer consumer interaction, and purchase intention. Their research found that consumer anchor interaction and consumer consumer consumer interaction are both important in improving perceived value and purchase intention. In addition, perceived value enhances purchasing intention. Shang et al. (2023) explored the influence of background fitting in e-commerce live streaming on consumer purchase intention and its related internal psychological mechanisms from a cognitive emotional perspective. The research results indicate that background fitting (including product background fitting and host background fitting) has a positive influence on consumers' cognitive processes (perceived trust and perceived value), and perceived value has a positive influence on consumers' perceived happiness. The entire emotional process further promotes consumers' purchase intention. Chen&Cui's (2023) research shows that the characteristics of e-commerce anchors are significantly positively correlated with irrational consumption behavior. That is, the more obvious the characteristics of e-commerce anchors are, the more they can interfere with consumer purchasing decisions, leading to irrational consumption behavior. Among them, perceived value plays a partial mediating role in the relationship between e-commerce anchor characteristics and irrational consumption behavior. Xiaoyi&Zhengliang's (2020) study classified consumer intrinsic states into sense of pleasure, sense of worth, and sense of trust, and explored their mediating role in the influence of e-commerce anchors' characteristics on consumers' purchase intention.

Regarding the SOR theory, Liu et al. (2022) examined the influence of tourism e-commerce live streaming functions (interactivity, authenticity, and entertainment) on consumers' purchase intention

from the perspective of consumer traffic experience and trust based on the SOR theory. Guo et al. (2021) examined the influence of live streaming functions on consumers' cross-border purchase intention from the perspective of overall perceived value and overall perceived uncertainty based on the SOR theory. Yang et al. (2022) established an impulse buying model for e-commerce live streaming consumers from the perspective of human-computer interaction based on SOR theory. The research results indicate that consumers' visual attractiveness, perceptual arousal, and engagement play a mediating role in the relationship between interface design, on-site atmosphere, and impulse buying. In order to promote the sustainable development of the live streaming economy, live streaming platforms need to design attractive live streaming interfaces, create a pleasant live streaming atmosphere, enhance consumers' positive emotions, and prevent their irrational purchasing behavior.

5. RESEARCH ON RELATED TOPICS

At present, research on e-commerce anchors is mainly divided into the following two aspects:

Simply categorize e-commerce anchors as internet celebrities, opinion leaders, etc. for research. Geng et al. (2020) conducted a study on the contribution of internet celebrity endorsements to marketing effectiveness in the context of e-commerce, both theoretically and practically. The empirical results showed that the content generation efforts of internet celebrities and the interactive behavior between internet celebrities and consumers will significantly affect e-commerce sales, which is the first-order effect of internet celebrity endorsements; In addition, the interaction within the fan community has a second-order influence on sales performance due to content marketing by the internet celebrities. Abidin (2021) explored the mediating effect of online celebrity characteristics on fans' impulse buying behavior. The results showed that self-disclosure online celebrity had a positive influence on consumers' attachment, and had a positive influence on consumers' impulse buying behavior; Professional knowledge online celebrities have a positive influence on consumer attachment and impulsive purchasing behavior. Zhang (2016) conducted a study on the characteristics, existing problems, and countermeasures of internet celebrity communication in the era of self media. He pointed out that internet celebrity communication has the characteristics of style pan entertainment, content production netizenization, and cross platform communication. However, it also has problems such as insufficient vitality, marketing methods that need to be improved, and single communication methods. It is necessary to strengthen the integration of products and internet celebrity temperament to build a brand, to strengthen the integration of internet celebrity brands and internet culture to create diversified strategies for internet celebrity communication and enhance its dissemination value. Dong et al. (2018) analyzed the current situation of the "internet celebrity economy" and pointed out that the internet celebrity economy has a positive influence on transforming traditional e-commerce structures, improving economic structures, and increasing social employment; But the quality issues of "internet celebrities" often have a negative influence on social atmosphere, and the internet celebrity economy also causes overheating of capital investment. Yan & Li (2019) based on media research and social psychology theory, analyzed the phenomenon of "online celebrity" from the perspective of group psychology. Meng et al. (2020) validated the psychological mechanism by which live streaming influencers influence consumers' purchase intention through a structural equation model. He pointed out that social presence enhances consumers' purchase intention by enhancing their sense of identity. At the same time, the characteristics and content consistency of live streaming influencers positively regulate the influence of social presence on consumers' sense of identity.

Research on the characteristics, abilities, or types of e-commerce anchors. Zhang et al. (2022) used the Grounded theory method to explore the role and characteristics of e-commerce anchors, and finally identified eight characteristics of e-commerce anchors (professionalism, attractiveness, credibility, interactivity, popularity, price support, affinity, and responsiveness), and further divided them into four roles (opinion leaders, spokesmen, interactive partners and marketers). Liu et al. (2022)

constructed a model to empirically analyze how anchor professionalism affects consumer impulse purchase intention. The results showed that anchor professionalism is positively correlated with consumer impulse purchase intention, and feeling of presence plays a partial mediating role in the interaction between anchor professionalism and consumer impulse purchase intention. In addition, consumer competitive arousal has a negative moderating effect on the relationship between anchor professionalism and consumers' feeling of presence. Liang & Zuo (2023) explored the relationship between anchor features and consumer emotional and behavioral responses based on the SOR model. Research has found that the professionalism, interactivity, and trust of anchors have a significant positive influence on consumers' emotional and behavioral responses. Fan et al. (2018) studied the influence of anchor interaction strategies on audience willingness to reward in different types of interactive live streaming scenarios. The study found that in relationship oriented online live streaming scenarios, anchors adopting weak interaction strategies are more likely to trigger audience willingness to reward; In task oriented online live streaming scenarios, adopting a strong interactive strategy by the anchors is more likely to trigger the audience's willingness to reward; Emotional energy and anchor identity play a mediating role in the interactive influence of interaction types and strategies on the audience's willingness to reward. Wu et al. (2020) explored the issue of whether and how the similarity in communication styles between e-commerce anchors and users affects users' purchase intention. The study found that the similarity in communication styles between anchors and users increases users' perception of quasi social interaction with anchors, triggering users' immersive experience while watching live broadcasts, and thereby enhancing users' purchase intention. Fei & Zhou (2021) conducted an experiment to explore the influence of different anchor types (traditional celebrities and online anchors) on consumer brand attitudes and purchase intention, as well as the moderating effect of anchor and promotional brand matching types (functional matching and image matching). Yin & Wang (2022) explored the influencing factors of user purchase intention in live streaming environments based on anchor characteristics and external environmental stimuli. Their research found that social presence and anchor characteristics (professionalism, attractiveness, and interactivity) have a significant influence on user approbation.

6. CONCLUSION

Through a review of existing literature, research on e-commerce anchors has the following characteristics: Firstly, studying internet celebrity e-commerce anchors is a field of interest for scholars; Secondly, Scholars are most concerned about how e-commerce anchors influence consumers' purchase intention. Based on this focus, scholars are more interested in studying the characteristics of e-commerce anchors and factors related to the live streaming environment. Overall, studying how to improve the efficiency of live streaming from the perspective of e-commerce anchors has been a trend of research in the past two years.

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