

Relevant Theoretical Characteristics and Trends of the “Field” Era of Live E-commerce: Knowledge Graph Analysis based on Cite Space

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Abstract—Existing research primarily focuses on the two core elements of “people” and “goods”, but research on the “field” element is relatively rare and scattered. Therefore, this paper will analyse the relevant research literature in the core collection database based on the Cite Space software from the two dimensions of field theory and place attachment theory. To systematically review and sort out the theoretical basis of the influence of consumers’ online behavior in live streaming and service scenarios. The current research’s characteristics and status quo are reflected through literature citation data and keyword co-occurrence. The research conclusions: the model application and interpretation situation of the theoretical basis in the live e-commerce “field” era keeps pace with the times; the research on consumer behavior in the live streaming field needs to be further expanded; Few scholars pay attention to the consumer attachment emotion formed by the live streaming scene construction.

Keywords: “Field”; Live Streaming Field; Place Attachment Theory (PAT); Cite Space;

I. INTRODUCTION

Live e-commerce is an online marketing model spawned by the diversification of the digital economy in recent years [1]. During the COVID-19 epidemic in 2020, the “contactless shopping” of live-streaming e-commerce bucked the trend. It became an important driving force for economic development when the social economy faced difficulties [2]. As a new form of media, it realizes the combination of online drainage and physical consumption, enabling consumers to obtain information more quickly and promptly obtain a sense of authenticity and presence [3]. Live e-commerce has become essential to achieve consumption upgrades, brand promotion, traffic aggregation, and customer relationship management [4]. From a micro level, live streaming e-commerce is the combination of e-commerce and live broadcast and results from the evolution and integration of TV shopping and e-commerce under the new media technology. From the perspective of retail organization form, all retail models are organized around the core elements of “people, goods, and markets” [5]. Live e-commerce is different from traditional retail, but it is still composed of “people, goods, and goods”. Organized by these three core elements, the foreground and the background, virtual and reality, are unified, and the consumption scene of “goods

looking for people” is set up [6]. The real-time introduction of the Internet platform has provided great convenience for live e-commerce, which makes it a new way to display and interact with products. It provides consumers with product information, features and other information through pictures, videos and other information media and differentiation. The content delivery process has dramatically improved the marketing effect [7]. However, with the rapid development of the live-streaming industry, various social problems have emerged, such as vicious competition between network anchors and vulgar live broadcast content. Live streaming is a unique virtual field, which is different from the general field because the space for anchors to practice is the network, and the network space is a highly open and shared public space. Therefore, compared with the traditional social field, The live streaming field has many new features, and the relationship with other “small worlds” is also more subtle [8].

Throughout the academic research on live e-commerce, in general, most of the research perspectives on live e-commerce focus on literature review and empirical studies on the elements of “people” and “goods”, such as live e-commerce and consumers’ purchase intention [9,10], live e-commerce and the supply chain [11], live e-commerce and

the net popularity economy [12], live e-commerce and the celebrity effect [13]. Although their studies cover a wide range of areas, they still lack a systematic study of the essential logic of the “field” element of live e-commerce and a mechanistic study of consumers’ behavioral motivations and theoretical foundations through the complex and changing scenarios and fields of occurrence. With the gradual popularization of technologies (VR and AI) and the growing specialization of the live streaming industry, the flexible application of the “field” element will inject new vitality and soul into the live e-commerce industry. Nowadays, compared with Web 1.0 and Web 2.0, the competition for communication in the mobile Internet era is no longer only about traffic and social interaction but also about the “scene” and “field” that integrate traffic, social interaction and experience [14]. The qualities of online socialization, precise matching and immersive panoramic experience of live e-commerce provide users with a new user experience, creating many immersive scenarios and changing the user’s consumption experience and consumption style while subverting how users interact with information. Webcasting has become an essential cross-scene ecological platform in the field of communication. By connecting the information adaptation of both transmitters and receivers and creating an immersive user experience, webcasting has completely reconstructed space-time, socialization and marketing, demonstrating the concept of scenario-based accurate communication in the field of live broadcasting [15].

Based on this, this paper intends to draw on the practical research of industry institutions and theoretical research of academia to focus on one of the core elements affecting the online behavior intention of live e-commerce - “field”, combined with the literature research methods of reading induction and scient metrics. Systematically thinking about the behavioral driving mechanism and behavioral transformation intention of live-streaming e-commerce consumers under the new form of consumption, this paper consolidates the multi-dimensional innovative development of live-streaming e-commerce theoretical research. It clarifies traffic consumption in the “field” era of live-streaming e-commerce to guide demand and drive live streaming—the internal logic of business online behavior intention. In addition, in the face of the massive amount of literature, there are certain limitations, subjectivity and one-sidedness in the analysis by reading and inductive methods. The application of modern scient metrics and informetric technology can carry out multivariate and diachronic dynamic analysis of massive literature data. This research will use a literature analysis and visualization research method [16], ---Mapping Knowledge Domains to visually sort out the theoretical basis research literature of the

live broadcast field and live broadcast scene and select critical pieces of literature to interpret and analyze the characteristics of their research content, in order to clarify the generation of consumer behavior intentions that drive live broadcast e-commerce for subsequent researchers. The essence of logic expands the insufficiency of theoretical research and strengthens the realization-oriented foundation of industry development.

II. STUDY DESIGN

Cite Space is the abbreviation of Citation Space, which means citation space. It is a citation visualization analysis software that focuses on analyzing the potential knowledge contained in scientific research and gradually develops in the context of data and information visualization and scient metrics[17]. Cite Space presents visualization’s structure, law, and distribution of scientific knowledge. The resulting visualization has the dual characteristics of “graph” and “spectrum”, so it is called a scientific mapping knowledge domain (MKD) [18]. It integrates various methods, such as cluster analysis and social network analysis. It can achieve a quantitative analysis of documents through keyword co-occurrence, author and research institution cooperation network, clustering, and intuitively presenting research hotpots in related fields and potential relationships between documents. Knowledge Links [19]. Therefore, this paper uses Cite Space software. The Selection Criteria are Top 50 per slice, the period is 2000-2021 (Slice Length=1), and uses pruning connection in the Pathfinder function. We use the node to the annual citation ring. The different colors and sizes of the yearly ring represent additional years and citation numbers, which show the history of citations from the publication to the present. The distribution of keyword word frequency can reflect the number of citations or published papers in a particular field. The most published documents or frequently cited fields are often the research hotpots. The thickness of the linking keyword lines in the figure determines the number of co-occurrences, measures the relationship between them, and uses the color to determine the frequency of word occurrence time. At the same time, burst means that the value of a variable has changed a lot in a short period. The emergence of keywords with strong emigrates indicates that scholars have discovered new research fields and research perspectives in a certain period, thus manifesting as academic frontiers in a certain period, often shown in red on the map.

A. Research Scheme

Based on the above questions, this article will mainly take the “field” element as the entry point to elaborate and sort out the relevant theoretical mechanism of the “field” era

of live streaming marketing from the two dimensions of the live streaming scene and live streaming field.

The live broadcast medium born by relying on Internet technology is the primary platform for the current development of e-commerce. The link network field generated by the interaction of live broadcasts has gradually become the primary tool for market producers to conduct product marketing. Consumption induction, the resulting psychological attitudes, and subsequent choice behaviors emerge in specific paradigms. Therefore, this article will start from the Bourdieu field theory and focus on analyzing and explaining the action strategy choices of the live streaming field streamers to discover the possible occurrences of the live streaming field with capital participation under the guidance of business logic. Problems such as aesthetic vulgarity and disorder have caused deep thinking of related enterprises.

With the development of media intelligence, a scene marketing trend has emerged in marketing communication. The current advantages are the popularity of mobile devices, the natural flow of live-streaming platforms, and the low threshold for live streaming. Scenario communication in the mobile Internet era is a kind of social immersion communication, that is, communication that forms interactive participation based on social platforms and user attributes. Social communication and communication are integrated, and the scene becomes a community. The degree of attachment has become a vital issue for its flourishing. In the scene era, one of the marketing techniques is to restore the connection between people. This connection is not only the realization of physical connection but the reconstruction of the relationship between people in real social situations to form scene attachment. It includes a personal cognitive, or emotional connection to the scene and a desire to maintain a close distance from the scene in space. Therefore, this article will start with the scene attachment theory and try to analyze the user's attachment behavior and psychology in the live broadcast e-commerce scene communication in order to provide enterprises with emotional links with the live broadcast audience from different perspectives.

B. Data processing

Presently, the field theory and the definition of place attachment are vague and extensive. For instance, field theory can be developed into scene theory, place theory, place attachment theory can be developed into scene attachment theory, and scenario attachment theory. Especially in early research, these concepts and terms were used interchangeably. To better understand the research progress built on the theoretical basis of live e-commerce

online behavioral intentions, the search terms in this paper are set as "field theory" + "scene theory", or "place theory", "scene attachment "+" scenario attachment". At the same time, this paper selects the core collection database of the Web of Science, collects the topic sample literature in the past two decades, and eliminates invalid samples unrelated to the research topic. This article contains 314 field theories and 512 place attachment theories. It carries out co-occurrence visual map analysis and emergent word analysis of literature keywords and references. Hot keywords can be further traced to specific analyses of indexed related literature.

III. RESEARCH HOTPOTS AND FRONTIER ANALYSIS

Research hotpots refer to the research questions or topics a relatively large group of papers discusses with internal connections within a certain period. Keywords are the author's highly refined and generalized core content of the article, reflecting the research value and direction. Noun phrases extracted from reports can also represent research hotpots in a particular lot to a certain extent. Identifying and tracking research fronts can provide researchers with the latest evolution of disciplinary research, predict the development trend of research fields and identify issues that need further exploration. In Cite Space software, research fronts are emerging theoretical trends and new topics that should be comprehensively analyzed and judged based on studying emergent literature and words.

A. 3.1 Research 2 Field Theory

1) Research process

In the same way, using Field Theory as the keyword to collect sample documents for co-occurrence visual map analysis (see Figure 1), it is found that the literature discussion centers are mostly Bourdieu's "habitus" and classical terms of field theory, such as cultural capital and social capital [20, 21]; the research fields and disciplines used are mostly sociology, education, culture, and politics [22, 23]. Through the analysis of emergent keywords in Cite space, it can be seen that the ten emergent words of field theory (Table 1) are: gender, community, transformation, legacy, science, history of nursing, nursing, performance, challenge, and cultural production.



TABLE 1. Keyword Field Theory map

TABLE 2. Table 1 Top 10 Keywords with the Strongest Citation Bursts

Keywords	Strength	Begin	End	2004 - 2021
gender	7.171	2004	2007	
community	5.632	2005	2011	
transformation	3.3	2006	2009	
legitimacy	5.112	2008	2014	
science	3.734	2008	2011	
history of nursing	3.132	2009	2012	
nursing	3.124	2009	2010	
performance	3.202	2010	2016	
challenge	3.386	2011	2014	
cultural production	4.495	2011	2016	

2) Research hotpots analysis

The field is a hierarchical system. Each agent in the field shows a distinct hierarchical relationship and is located in a specific position [24, 25]. The study of the field is not a static observation but a multi-dimensional space composed of various social positions in the combination of dynamic and static [26, 27]. When Bourdieu analyzed the relationship between the modern French school education system and social distinction, he profoundly discussed the close relationship between the field and people’s social status, social relationship, power operation and survival mentality [28]; The book uses field analysis tools to conduct in-depth research on the TV field and the news field. He pointed out that “the press is a small independent world with its laws, but at the same time, it is limited by its position in the whole world and is restrained and promoted by other small worlds” [29] (Webb, 2002). Finding ways to understand the nature of social change and social order—from political movements to market crashes—is an enduring problem in the social sciences. Like Russian dolls, almost countless close and overlapping fields are nested and connected in a broader context. Fields are interdependent; changes in one often trigger changes in another. Field theory describes how social actors in a given domain shape and

maintain order, explaining what individuals do to gain cooperation or compete in strategic action domains [30].

Table 2 shows the statistics of the top ten papers cited in the literature related to Field theory. The research content of the frequently cited papers is mainly the innovative application and follow-up of the Bourdieu field theory in the political, cultural, social and other organizational fields. Scholars discuss the development of Bourdieu’s field theory [31, 32]. For example, [33] Bennett (2006) examines field-theoretical cultural capital and the social space of broadcasting, looking at the “internal economy” of television in terms of the relationship between genre, program and channel preferences; Emir Bayer and Johnson [34] (2008) examine the impact of Bourdieu’s theoretical framework on inter-organizational relationships and the organization itself as domain analysis, deepening the understanding and use of Bourdieu’s field theory inherent terminology such as “habitation”. Most of the high-frequency cited works of literature are based on an overview of the theoretical basis of the early Bourdieu field, and there are few kinds of literature on practical applications. Most of the empirical research focuses on the field of politics and culture. Accordingly, there is a lack of literature in the field of economic management.

TABLE 3. CITATION STATISTICS OF FIELD THEORY RELATED DOCUMENTS IN WEB OF SCIENCE DATABASE

First author	year	centrality	title	count
Emirbayer M	2008	0.08	Bourdieu and organizational analysis	66
McAdam D	2012	0.24	A Theory of Fields	62
Bennett T	2009	0.04	Distinction on the box: Cultural capital and the social space of broadcasting	55
Bourdieu P	2005	0.05	The Social Structures of the Economy	41
Swartz	2013	0.06	Symbolic power, politics, and intellectuals	36
Bourdieu P	2000	0.05	Pascalian meditations	33
Pringle JK	2008	0.00	Gender in management: theorizing gender as heterogender.	28
Savage M	2013	0.04	Field analysis in cultural sociology	28
Bourdieu P	2004	0.08	Science of science and reflexivity	28
Charmaz K	2014	0.02	Constructing Grounded Theory	26

3) Research Frontier Analysis

From the point of view of suddenness intensity, the keyword with the most vigorous intensity is “gender”. The keyword “gender” emerged in 2004 and showed a downward trend in 2007, with the most sudden intensity. Explore the communication, wrestling, confrontation and struggle of various gender discourses in the cultural field, decode the gender ideology implicit in commonly used metaphors, and reveal the limitations of the production perspective and the Bourdieu art domain model [35,36]. Combined with the keyword map, it is also easy to know that gender difference has always been the critical element of the discussion in field theory research. When it develops into the live broadcast field under the background of e-commerce, whether the difference in gender temperament of service personnel is related to consumers’ purchase intention to a certain extent is also a topic worthy of discussion and in-depth study.

From the perspective of duration, the sudden keywords with the most extended duration are “community”, “legitimacy”, and “performance”. The keyword “community” emerged in 2005 and showed a downward trend in 2011. The keyword “legitimacy” emerged in 2008 and showed a downward trend in 2014. The keyword “performance” emerged in 2010. There was a downward trend in 2016, and the burst duration of the three keywords was tied for the first place, and a research boom emerged. Researchers mainly focus on the political and social fields, such as exploring how an organization can generate, operate and exert influence as an autonomous and legitimate diplomatic agent in the wider international field through the daily staffing practice of the secretariat. Apply field theory to explore how the interaction between community healthcare workers and the public can generate momentum for change and promote health improvement in individual institutions [37]. In addition, research has gradually begun to introduce field theory into economic management to evaluate complex performance, which is an explanatory behavior of a social situation [38].

B. Research 2 Place Attachment Theory

4) Research process

Place attachment research has gradually shifted from theoretical overview to empirical research. Place attachment theory is mainly applied to studying tourism, leisure and other service formats. As shown in Figure 2, the frontiers of contextual attachment research focus on aspects such as “sense”, “experience”, “attitude”, “satisfaction”, and “perception”. The 14 emergent words of place attachment theory (Table 3) are place attachment, attitude, sense, perception, psychology, social construction, environment, context, identification, conservation, construction, tourism, national park, and resident.



Fig. 1. Place Attachment Keyword Graph

5) Research hotspot analysis

Place attachment occurs when people experience a particularly scenic spot that forms a symbol [39]. Place attachment is a theoretical basis for analyzing the emotional connection between consumers and enterprises. It satisfies scene attachment theory’s characteristic elements and functions [40]. When people choose live streaming as a shopping place for leisure or entertainment, they will inevitably contact various service scenarios in the live streaming venue, including the external environment, internal design, anchors and other service providers. Under the external stimulation of the service elements of these service scenarios, Consumers may have an emotional attachment and service identification with the live-streaming venue. Then the live broadcast business may generate premium behavior, or after the live broadcast, it may recommend the store to others and share the experience through social platforms. Therefore, this paper will use Williams’s (1992) [41] “two-dimensional theory” to divide consumers’ attachment to live-streaming scenes into two levels: scene identification and dependence. Scene identification is a kind of emotionality of consumers to live virtual broadcast scenes. Place dependence is the functional dependence of consumers on live-streaming scenes.

Table 4 summarizes the top ten papers cited in the related literature on Place Attachment Theory. The research content of the frequently cited papers is mainly the comprehensive application of Place Attachment Theory in tourism management. For example, researchers reviewed hundreds of academic papers of empirical and theoretical research and questions and additions to the development of the Place Attachment theoretical model with an overemphasis on individual differences in the tripartite model of Place Attachment [42, 43]; Furthermore, investigating the relationship between Place Attachment as a secondary influencing factor and positive and negative influence of place satisfaction and behavioral intention [44]; to explore the mediating role of place attachment in the relationship between

satisfaction and loyalty; to measure the impact of the community and environment [45, 46].
 association between place attachment in the individual,

TABLE 4. TOP 14 KEYWORDS WITH THE STRONGEST CITATION BURSTS

Keywords	Strength	Begin	End	2003- 2021
place attachment	5.4676	2003	2008	
attitude	5.5117	2003	2007	
sense	9.3947	2004	2011	
perception	4.1731	2007	2011	
psychology	4.4436	2007	2011	
social construction	3.9058	2007	2015	
environment	4.4787	2008	2014	
context	4.2772	2009	2011	
identification	3.5931	2013	2016	
conservation	4.1393	2013	2017	
construction	3.7962	2014	2016	
tourism	5.0945	2015	2018	
national park	3.8505	2015	2018	
resident	4.8325	2019	2021	

TABLE 5. STATISTICS OF CITATION INFORMATION OF RELEVANT DOCUMENTS IN PLACE ATTACHMENT THEORY

First author	year	centrality	title	count
Lewicka M	2011	0.03	Place attachment: How far have we come in the last 40 years?	119
Ramkissoon H	2013	0.09	Testing the dimensionality of place attachment and its relationships with place satisfaction and pro-environmental behaviors: A structural equation modelling approach	95
Scannell L	2010	0.18	Defining place attachment: A tripartite organizing framework.	88
Prayag G	2012	0.10	Antecedents of Tourists' Loyalty to Mauritius: The Role and Influence of Destination Image, Place Attachment, Personal Involvement, and Satisfaction	68
Anton CE	2014	0.02	Home is where the heart is: The effect of place of residence on place attachment and community participation	47
Yuksel A	2010	0.12	Destination attachment: Effects on customer satisfaction and cognitive, affective and conative loyalty	46
Lee J	2012	0.06	The Mediating Effect of Place Attachment on the Relationship between Festival Satisfaction and Loyalty to the Festival Hosting Destination	45
Raymond CM	2010	0.01	The measurement of place attachment: Personal, community, and environmental connections	40
Ramkissoon H	2012	0.08	Place attachment and PR environmental behavior in national parks: the development of a conceptual framework	40
Scannell L	2010	0.07	The relations between natural and civic place attachment and pro-environmental behavior	38

6) Research Frontier Analysis

In terms of burst intensity, the burst keyword with the highest intensity is “sense”. The keyword “sense” emerged in 2004 and showed a downward trend in 2011, with the highest burst intensity. Sense refers to the sense of place. Place attachment has been extensively studied in the social and behavioral sciences over the past two decades. Researchers capture place attachment measures that capture people’s degree of emotion and feeling about the place and further examine and analyze them. Evaluate psychometric characteristics and the validity and generality of their measurement [47]; or construct an impact model of research elements based on attachment

theory for empirical analysis, such as destination image and value, scene attachment, Personal interference and satisfaction are used as model structural factors to verify the impact of tourism research sites [48, 49]; or explore the path between destination loyalty and satisfaction with scene attachment as a mediator relationship influence effect [50], and compare the fit of the five-dimensional model with that of the traditional two-dimensional model of place identity and place dependence. Analysis and discussion suggestions [51].

In terms of duration, the burst keyword with the longest duration is “social construction”. The keyword “social construction” emerged in 2007 and showed a downward trend

in 2015. The researcher proposes a place attachment theory based on interaction theory, which believes that place attachment is the emotional bond formed by the meaning given to the place by individuals through the process of interaction and believes that this attachment is composed of two intertwined parts, namely the interactive past and the interaction. Potential or interactive memories associated with the place or future experiences that are considered likely or likely to occur at the place [52] (Milligan, 1998).real-time and carry out scene attachment marketing, which also provides new possibilities for live broadcast e-commerce scene services. In empirical research, the concept of contextual attachment and its possible influence on the behavioral intention of the research subject has been critically examined [53], arguing that contextual attachment is a multidimensional structure, including place dependence, place identity, place influence, and place society. Connection by viewing situational attachment as an attitude and recognizing that there will be a close relationship between attitudes and behavioral intentions when both are directed towards a specific object or environment [54]. Alternatively, use urban residents as a survey sample to study residential memory and its relationship with place identity and scene attachment to explain the dual-process model of perception [55]. In today's era of big data, enterprises can understand the dynamic environment experienced by consumers in real-time and carry out scene attachment marketing, which also provides new possibilities for live broadcast e-commerce scene services.

IV. GENERAL DISCUSSION

A. Research Conclusions

First, the model application and interpretation situation of the theoretical basis in the live e-commerce "field" era keeps pace with the times.

Field theory was originally self-constructed based on Newton's Law of Gravitation before being applied to psychology. Social reality is a "big field" composed of many "subfields" that are independent and interconnected. The large field of social reality affects the development of the small field of live e-commerce research. The advancement of technology has achieved equal rights in the network. At the same time, technology is manipulated by capital, and actors in traditional fields are often marginalized and reduced to tools under the control of business models. If we consider live broadcast e-commerce a relatively independent field, capital controls product promotion by formulating "marketing rules". The influence of technical capital and economic capital on live-streaming e-commerce increases. The work of anchors gradually becomes the maintainer of the business model. In webcasting, economic capital is the leading resource that the actors in the field compete with. It plays a crucial role in this

field's logic rules, making it show prominent consumption-oriented integration characteristics.

Some scholars have proposed that the field marketing model is dynamic. The content conversion is carried out according to the real-time situation in the field. The process is uncertain, but it has great potential and is similar to the interactive structure of the charming "field". Due to the self-organizing structure in a complex system, all elements play a role together and gradually form a huge communication influence in the process of "competition" with each other. Based on this theory, "field" marketing must be established in a particular flow space, and this space must have a decentralized relationship network. At the same time, there is a "power" contest between participants, and live e-commerce is just in line with the "field". The Theoretical Logic of Marketing can be seen that the live streamers and other actors (including the anchors) are all to realize the conversion and appreciation of economic capital, social capital, cultural capital and symbolic capital, as well as the internal control power of the field. The action strategy and relationship structure that presents or dominates, competes, or cooperates with the formulation of the game's rules. In live broadcast e-commerce, the live broadcast service field performs the content conversion and dynamic marketing according to real-time conditions. All elements play a role together and gradually form a huge shopping communication influence in the process of "competition" with each other. As a sociological research theory, field theory has been studied and used for reference by academic circles for many years. However, most of the current field theory research in marketing tends to start from individual cases, revealing that the leading actors in traditional e-commerce are in a new era. Under the influence of capital and technology, it is constantly being marginalized in the context of the times. However, there is a lack of research on fields such as live broadcast e-commerce itself, which was born on the Internet and presented new characteristics, and typical and new phenomena in social media. However, it has been deepening and advancing with the times.

Secondly, consumer behavior research in the live-streaming field needs to be further expanded and extended.

With the development of the changes in people's cognition, the research on field theory has been changing, and much academic research related to field theory is also being adjusted over time. Live field research is one of them. With the rise and growth of live broadcast e-commerce in recent years, there are some differences between the live broadcast field and the traditional e-commerce market. From the perspective of the field, the live broadcast e-commerce service may construct a new service scene in some form and reshape the operating mechanism of this service scenario [56]. Currently, field theory research in live-streaming shopping mainly focuses on the influence mechanism of live-streaming shopping motivation,

integration interaction, and purchase intention. Few studies on behavioral intentions are directed at e-commerce live broadcasts. With new media technologies, the relationship between communicators and audiences has undergone qualitative changes, and audiences are no longer satisfied with "watching performances" but actively participate in network communication [57].

Through the retrieval and sorting of relevant literature, this paper finds that the economic capital field comprises live-streaming platforms, brand owners, and MCN institutions. It not only intervenes in the speech practice activities of the live broadcast room hosts but also affects the live broadcast content, forms and discourse methods of the hosts; Influenced by the field of the live broadcast room, such as the anchor's recommendation for the product, the choice of the brand and the live broadcast platform. The display of items in the live broadcast room, the anchor, and the anchor's speech practice will affect the willingness to consume and consumption decisions. The speech practice of the anchor is the most significant. Consumers will judge whether to buy based on various factors such as experience and knowledge, the information they have, and the parity of relatives and friends. The two interact and change according to their similarity. When the live broadcast field and the consumer field can resonate, consumers are more likely to choose the live broadcast room and make purchases so that the live broadcast room can exert influence.

Conversely, the interaction is weakened. Consumers will predetermine their socioeconomic status before entering the live broadcast room. However, it is difficult for most consumers to realize the broader socioeconomic structure in which consumption decisions are made during the specific live broadcast process. This feature puts the consumer and economic capital fields in a strange, elusive relationship. The existing research on the external forces (economic and political forces), especially the economic capital involved in the live broadcast field application, is scattered and scattered and has not formed a specific system. However, it has received a certain degree of attention from the academic community. The relevant research carried out from the perspective of live broadcasting entering the industrialized production stage is rarely involved.

Thirdly, there is a lack of specific research on the consumer attachment emotion formed by the construction of the live broadcast scene.

The research on place attachment theory in marketing is still in its infancy, and the related research is relatively small and weak. There is no research on attachment emotion so far. It is essential to distinguish and analyze the scene-based construction of online live broadcasts and consumer attachment emotions. It is also a limitation of the current academic research. Although many studies have paid attention to the

social elements of live broadcast venues (such as barrage interaction), related research only stays on a single and explicit performance. It does not fully cover all the characteristics of interactive integration, nor does it deeply explore socialization characteristics. The resulting socialization experience and socialization relationship and the mechanism of its impact on consumer behavior are ultimately based on individual perceptions (such as satisfaction and perceived value) [58]. Therefore, follow-up research can start from the interactive integration mechanism in the live broadcast scene and investigate the role of consumers' social emotions, such as place identification and place dependence, on the formation of online behavior willingness. In addition, live e-commerce is one of the main applications of scene marketing. So far, live e-commerce is the best restoration of the communication between consumers and service personnel in offline physical space. Therefore, the study of live e-commerce from the perspective of scene attachment has a high degree of fit with reality. However, live broadcast e-commerce is very different from other network service scenarios. In addition, live broadcast e-commerce has only gradually emerged in recent years, and related research is still developing, which is also where future research deserves attention.

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years, and related research is still in the development stage. This is also where future research deserves attention

B. Theoretical Contributions

From a theoretical point of view, although there are many discussions and research on webcasting in academia, most existing research is aimed at more mature fields such as entertainment live streaming. The “live broadcast + delivery” model of e-commerce live broadcast has only grown in the past two years. The research on live broadcast e-commerce in academia is still relatively simple. At the micro-level, there are few studies on consumer psychology and behavior. In particular, previous studies have focused on analyzing “people” and “goods” in live e-commerce, and the research on “fields” is relatively fragmented and unsystematic. Field marketing and scene marketing deepen people’s understanding of the regularity of marketing activities. They have flourished due to their rationality in marketing philosophy and respect for the return of human subjectivity, showing strong vitality. There is no complete theoretical foundation for introducing and implementing field and scene marketing in live e-commerce marketing, so it is necessary to carry out in-depth research.

In this paper, the visual research software system is used to review and sort out the relevant theoretical results of “Field” and choose to deeply explore the role of interactive subjects such as e-commerce live broadcast platforms, anchors, and other consumers in the live broadcast room in the formation of consumers’ online behavior willingness. The current situation can enrich the theoretical research in e-commerce live broadcast marketing. This paper deepens the understanding of the theoretical research on the influence mechanism of live e-commerce on consumers’ online behavior intention and enriches the related research on consumption situations. Specifically, based on sorting out and reviewing the relevant theories of the “field” elements of live broadcast e-commerce, this paper discusses the relevant theories of the “field” era of live broadcast e-commerce from field marketing and scene marketing. With the scene theory, this paper explores the theoretical research on the effect of e-commerce live broadcast platforms, live broadcast anchors, other consumers and other factors on consumers’ online behavior willingness. It makes a theoretical study on the formation of consumers’ online behavior willingness under the action of various interactive subjects of e-commerce live broadcast. It is a supplement to the related research on live e-commerce. Further, it improves the marketing theory to meet the requirements of the Internet era for changes in the marketing field, which has particular theoretical significance.

C. Practical Implications

Scientific theories can foresee the future and correct the direction of the practice. With the successful development of live-streaming e-commerce, the total transaction volume keeps

rising, and its vast commercial potential attracts more and more people. Live e-commerce has created a new sales channel for many businesses and brands with robust interactivity. Compared with the traditional model, e-commerce live broadcast has dramatically improved the transaction rate of goods and brand awareness. The importance of live e-commerce to commodity transactions and brand communication has attracted more and more merchants to invest in this business. However, due to the large number of subjects involved in the live broadcast e-commerce model, the influence mechanism of each subject on the willingness to purchase is still unclear, resulting in many merchants’ road to live broadcast e-commerce is not smooth. Whether the cooperative live broadcast platform and the live broadcast scene have any influence; how to carry out the live broadcast interaction of the anchor; whether the group interaction in the live broadcast room has an impact on the shopping atmosphere; and how these interactive subjects will affect the impulse purchase of consumers. The urgent questions need to be answered in the commercial live broadcast business.

Traditional e-commerce has experienced years of development. It has formed large-scale commercial capabilities, which profoundly affect the direction and proportion of people’s modern consumption patterns, and is gradually growing into a new type of Internet consumption. However, since live streaming e-commerce was developed in a brief period, it will encounter different problems in the development process, such as the communication and interaction with consumers; the choice and specification of the live broadcast platform, which seriously affect the live streaming e-commerce. The stable and healthy development of the commercial industry and related enterprises is based on the unclear marketing orientation. Only seeing the traffic and economic benefits of a particular live broadcast room blindly follows the trend, leading to economic losses and image damage. The introduction of field marketing and scene marketing concepts can guide the live broadcast e-commerce industry and related enterprises to update their concepts; coming out of the traditional misunderstandings, it takes the needs of consumers as the marketing orientation, chooses creative themes and atmospheres, develops live broadcast rooms with a distinctive personality, and obtains a lasting competitive advantage in the fierce market competition. Only the developing theory can guide new practice. Therefore, it is necessary to identify and interpret the frontiers of theoretical research with the times and stay close to the actual life of consumers. Thus, we can look forward to the future development of live-streaming e-commerce, enhance our understanding of the live-streaming e-commerce model, guide Merchants to improve the profitability of live broadcast rooms and provide a reference. Finally, we can think about the

healthy, sustainable development of the live-streaming e-commerce industry.

D. Limitations and Future Research Direction

The limitations of this study are: First, the scope of literature research is limited to English literature from 2000 to 2020, and literature in other languages can also be considered in the future. The second is to use the Cite Space visualization tool to extract the slices in the dataset that contain highly cited documents. There may be cases where some documents' citation rate is low, and valuable documents are not covered. Third, synonyms are merged before using Cite Space for co-occurrence network analysis and clustering analysis, and invalid words are deleted. There are certain deviations in the information. The fourth is that the critical articles recommended by this tool each time may draw different conclusions due to the threshold parameter setting.

Future research on the "field" element can be considered from the following aspects: First, the current research only focuses on the "field" element in live broadcast e-commerce, and future research can try to use "people", "goods", "Based on the three elements of "field", discuss the relationship between the three, to provide different perspectives for the development of live broadcast e-commerce, and analyze from a more comprehensive perspective and dimension; second, the effect of live broadcast e-commerce from different platforms research, such as social platforms, short video platforms, e-commerce platforms, and try to explore whether there are differences in the scenarios and mentalities of live broadcast users using different platforms. This aspect is worth further research; second, the theoretical visualization of this paper focuses on consumers. From the perspective of live broadcast shopping, follow-up research can start from the social perception of live broadcast shopping and use social presence theory and SOR theory to analyze consumer behavior; Furthermore, there are many other related theories for the emerging model of live broadcast shopping. It can apply to analyze the logical behavior of individuals in the process of live-streaming shopping. In future research, social influence theory, social support theory, and social capital theory can be considered to more comprehensively understand consumers' behavior patterns in live-streaming shopping.

REFERENCES

[1]. M. Fei, H. Tan, X. Peng, Q. Wang & L. Wang. Promoting or attenuating? An eye-tracking study on the role of social cues in e-commerce livestreaming. *Decision Support Systems*, vol. 142, pp. 113466, 2021.

[2]. Z. Liu, "Research on the current situation and future trend of web celebrity e-commerce live streaming industry", In 2020 The 4th International Conference on Business and Information Management, pp. 133-137.

[3]. B. Simon, C. Matt, & T. Hess, (2017). "Consumer Use of Social Live Streaming Services: The Influence of Co-Experience and Effectance on Enjoyment", *Proceedings of the 25th European Conference on Information Systems (ECIS 2017)*.

[4]. F. Hou, Z. Guan, B. Li, & A. Y. L. Chong, "Factors influencing people's continuous watching intention and consumption intention in live streaming: Evidence from China." *Internet Research: Electronic Networking Applications and Policy*, vol. 30(1), pp. 141-163, 2021.

[5]. W. Tafesse, & B. P. Wood, "Followers' engagement with instagram influencers: The role of influencers' content and engagement strategy." *Journal of Retailing and Consumer Services*, vol. 58, pp. 102303, 2021.

[6]. V. Diwanji, A. Reed, A. Ferchaud, J. Seibert, V. Weinbrecht & N. Sellers, (2020). "Don't just watch, join in: Exploring information behavior and copresence on Twitch." *Computers in Human Behavior*, vol. 105, pp. 106221.

[7]. S. Yu, & Y. Hu. "When luxury brands meet China: The effect of localized celebrity endorsements in social media marketing." *Journal of Retailing and Consumer Services*, 54, 102010, 2020.

[8]. E. Pomeroy, L. Herrmann, S. Jung, E. Laenens, L. Pastorini & A. Ruiter, "Exploring Action Research from a Social Field Perspective." *Journal of Awareness-Based Systems Change*, vol. 1(1), pp. 105-117, 2021.

[9]. G. Xu, S. Wang, J. Li & D. Zhao. "Moving towards sustainable purchase behavior: examining the determinants of consumers' intentions to adopt electric vehicles." *Environmental Science and Pollution Research*, vol. 27(18), pp. 22535-22546, 2020.

[10]. A. Wongkitrungrueng, & N. Assarut. "The role of live streaming in building consumer trust and engagement with social commerce sellers." *Journal of Business Research*, vol. 117, pp. 543-556. 2020.

[11]. L. Zhu, & N. Liu. "Game theoretic analysis of logistics service coordination in a live-streaming e-commerce system." *Electronic Commerce Research*, pp. 1-39, 2021.

[12]. R. Geng, S. Wang, X. Chen, D. Song & J. Yu. Content marketing in e-commerce platforms in the internet celebrity economy. *Industrial Management & Data Systems*, vol. 120(3), pp. 464-485, 2019.

[13]. H. J. Park & L. M. Lin, "The effects of match-ups on the consumer attitudes toward internet celebrities and their live streaming contents in the context of product endorsement." *Journal of Retailing and Consumer Services*, vol. 52, pp. 101934, 2021.

[14]. X. Xu, J. H. Wu & Q. Li. "What drives consumer shopping behavior in live streaming commerce", *Journal of Electronic Commerce Research*, vol. 21(3), pp. 144-167, 2020.

[15]. K.K. J. Fietkiewicz & W. G. Stock, "Information behavior on social live streaming services." *Journal of Information Science Theory and Practice*, vol. 4(2), pp. 6-20, 2016.

[16]. H. Tang & X. Liang, "Based on CiteSpace Knowledge Graph Analysis of the Status Quo of Research on

- [17]. C. Chen. "Searching for intellectual turning points: Progressive knowledge domain visualization". Proceedings of the National Academy of Sciences, vol. 101(suppl 1), pp. 5303-5310, 2004.
- [18]. C. Chen. "CiteSpace II: Detecting and visualizing emerging trends and transient patterns in scientific literature." Journal of the American Society for information Science and Technology, vol. 57(3), pp. 359-377. 2006.
- [19]. Z. Chen, I. Benbasat & R. T. Cenfetelli. "Grassroots Internet Celebrity Plus Live Streaming" Activating IT-Mediated Lifestyle Marketing Services at e-Commerce Websites, 2017.
- [20]. J. Krotofil, A. Piela, K. Górak-Sosnowska & B. Abdallah-Krzepkowska. "Theorizing the Religious Habitus in the Context of Conversion to Islam among Polish Women of Catholic Background." Sociology of Religion, vol. 82(3), pp. 257-280, 2021.
- [21]. M. Strand & O. Lizardo, "For a probabilistic sociology: A history of concept formation with Pierre Bourdieu." Theory and Society, pp. 1-36, 2021.
- [22]. S. J. Baele & G. Bettiza, "Turning everywhere in IR: on the sociological underpinnings of the field's proliferating turns." International Theory, vol. 13(2), pp. 314-340, 2021.
- [23]. T. Andrews, "Bourdieu's Theory of Practice and the OECD PISA Global Competence Framework." Journal of Research in International Education, vol. 20(2), pp. 154-170, 2021.
- [24]. L. Cuba, & D. M. Hummon, "A place to call home: Identification with dwelling, community, and region." Sociological quarterly, vol. 34(1), pp. 111-131, 2021.
- [25]. M. Grenfell, Applying Bourdieu's field theory: The case of social capital and education. Education, Knowledge & Economy, vol. 3(1), pp. 17-34, 2009.
- [26]. J. L. Martin, what is field theory? American journal of sociology, vol. 109(1), pp. 1-49, 2003.
- [27]. D. Harvey, "Anti-capitalist politics in the time of COVID-19." Jacobin Magazine, vol. 20, 2022
- [28]. R. Shusterman, Bourdieu: a critical reader. Oxford & Malden, Mass, vol. 26(3), pp. 209-233. 1999.
- [29]. C. O. Webb, D. D. Ackerly, M. A. McPeck, & M. J. Donoghue, "Phylogenies and community ecology." Annual review of ecology and systematics, vol. 33(1), pp. 475-505. 2022.
- [30]. N. Fligstein & D. McAdam, (2012). A theory of fields. Oxford University Press, 2012.
- [31]. Bourdieu, P. (2000). "Pascalian meditations." Stanford University Press.
- [32]. D. L. Swartz (2013). "Symbolic power, politics, and intellectuals: The political sociology of Pierre Bourdieu." University of Chicago Press.
- [33]. T. Bennett, "Distinction on the box: Cultural capital and the social space of broadcasting." Cultural Trends, vol. 15(2-3), pp. 193-212. 2006.
- [34]. M. Emirbayer & V. Johnson. "Bourdieu and organizational analysis." Theory and society, vol. 37(1), pp. 1-44, 2008.
- [35]. K. Huppatz, "Reworking Bourdieu's Capital": Feminine and female capitals in the field of paid caring work." Sociology, vol. 43(1), pp. 45-66, 2009
- [36]. L. McCormick, Higher, faster, louder: Representations of the international music competition. Cultural Sociology, vol. 3(1), pp. 5-30, 2009.
- [37]. N. R. Luca, S. Hibbert & R. McDonald. "Understanding behaviour change in context: examining the role of midstream social marketing programmes." Sociology of health & illness, vol. 41(7), pp. 1373-1395. 2019
- [38]. S. Shay Butler. The assessment of complex performance: A socially situated interpretive act. Harvard Educational Review, vol. 74(3), pp. 307-329, 2004.
- [39]. R. B. Riley. Attachment to the ordinary landscape. In Place attachment (pp. 13-35). Springer, Boston, MA. 1992.
- [40]. H. Ramkissoon, L. D. G. Smith & B. Weiler. "Testing the dimensionality of place attachment and its relationships with place satisfaction and pro-environmental behaviours: A structural equation modelling approach." Tourism management, vol. 36, pp. 552-566, 2013.
- [41]. D. R. Williams, M. E. Patterson, J. W. Roggenbuck & A. E. Watson, "Beyond the commodity metaphor: examining emotional and symbolic attachment to place." Leisure Sciences, vol. 14(1), pp. 29-46. 1992.
- [42]. L. Scannell & R. Gifford, "Defining place attachment: a tripartite organizing framework." Journal of Environmental Psychology, vol. 30(1), pp. 1-10, 2010.
- [43]. M. Lewicka. "Place attachment: How far have we come in the last 40 years?" Journal of environmental psychology, vol. 31(3), pp. 207-230, 2011.
- [44]. H. Ramkissoon, L. D. G. Smith & B. Weiler. "Testing the dimensionality of place attachment and its relationships with place satisfaction and pro-environmental behaviors: A structural equation modelling approach." Tourism management, vol. 36, pp. 552-566. 2013.
- [45]. L. Scannell & R. Gifford. "Defining place attachment: a tripartite organizing framework." Journal of Environmental Psychology, vol. 30(1), pp. 1-10. 2010.
- [46]. J. Lee, G. Kyle & D. Scott. "The mediating effect of place attachment on the relationship between festival satisfaction and loyalty to the festival hosting destination." Journal of travel research, vol. 51(6), pp. 754-767, 2012.
- [47]. D. R. Williams & J. J. Vaske. The measurement of place attachment: Validity and generalizability of a psychometric approach. Forest science, vol. 49(6), pp. 830-840, 2003.
- [48]. G. Brown, & C. Raymond. "The relationship between place attachment and landscape values: Toward mapping place attachment." Applied geography, vol. 27(2), pp. 89-111, 2007.
- [49]. G. Prayag & C. Ryan, "Antecedents of tourists' loyalty to Mauritius: The role and influence of destination image, place attachment, personal involvement, and satisfaction." Journal of travel research, vol. 51(3), pp. 342-356, 2012.

- [50]. Jenny, Jiyeon, Lee, Gerard, Kyle, & David, et al. "The mediating effect of place attachment on the relationship between festival satisfaction and loyalty to the festival hosting destination." *Journal of travel research: The International Association of Travel Research and Marketing Professionals*, vol. 51(6), pp. 754-767. 2012.
- [51]. C. M. Raymond, G. Brown & D. Webe. "The measurement of place attachment: Personal, community, and environmental connections." *Journal of environmental psychology*, vol. 30(4), pp. 422-434. 2010.
- [52]. M. J. Milligan. "Interactional past and potential: The social construction of place attachment." *Symbolic interaction*, vol. 21(1), pp. 1-33. 1998.
- [53]. R. C. Stedman. "Understanding place attachment among second home owners." *American behavioral scientist*, vol. 50(2), pp. 187-205. 2006.
- [54]. H. Ramkissoon, B. Weiler & L. Smith, "Place attachment and pro-environmental behavior in national parks: the development of a conceptual framework." *Journal of Sustainable Tourism*, vol. 20(2), pp. 257-276. 2012.
- [55]. C. M. Raymond, G. Brown & D. Weber. "The measurement of place attachment: Personal, community, and environmental connections." *Journal of environmental psychology*, vol. 30(4), pp. 422-434. 2010.
- [56]. K. P. Lai, S. C. Chong, H. B. Ismail, & D. Y. K. Tong. "An explorative study of shopper-based salient e-servicescape attributes: A Means-End Chain approach." *International Journal of Information Management*, vol. 34(4), pp. 517-532. 2014.
- [57]. Y. H. Chen, M. C. Chen, & C. J. Keng. "Measuring online live streaming of perceived servicescape: Scale development and validation on behavior outcome." *Internet Research: Electronic Networking Applications and Policy*, vol. 30(3), pp. 737-762. 2020.
- [58]. M. Hu, M. Zhang, & Y. Wang. "Why do audiences choose to keep watching on live video streaming platforms? An explanation of dual identification framework." *Computers in Human Behavior*, vol. 75, pp. 594-606. 2017.

