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EXPLOITING LIMITATIONS: EXAMINING THE CONCEPT OF "BRICOLAGE" IN MANAGEMENT STUDIES THROUGH A BIBLIOMETRIC ANALYSIS

SINIRLILIKLARDAN FAYDALANMAK: YÖNETİM ÇALIŞMALARINDA "BRİKOLAJ" KAVRAMININ BİBLİYOMETRİK ANALİZ İLE İNCELENMESİ

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Abstract

Bricolage, a novel concept derived from anthropology, has a significant impact on contemporary management practices by promoting the use of available resources to deal with challenges and exploit resources. Previous research has highlighted the importance of bricolage in encouraging innovative thinking and adaptability in organizations, particularly in developing nations where resources are scarce. Although the notion is very adaptable, researchers could encounter the difficulty of combing through the diverse range of publications to find essential academic sources and articles on management. Therefore, a bibliometric analysis is necessary to thoroughly review and assess current trends in the management literature on bricolage. This study examines the existing literature on bricolage in management studies to identify research trends and potential gaps. The study's sample consisted of 209 publications published between 2003 and March 2024 in the Web of Science database. VOSviewer was used to analyze and display the associations among journals, authors, countries, and keywords. According to the results, bricolage is an important tool for businesses to overcome limitations within the entrepreneurial domain. The findings indicate that the United States, England, and China are significant research hubs in the research network. Also, keyword analysis revealed that a growing body of research is bridging the gap between entrepreneurship and other fields, such as technology, innovation, policy, and society, according to the relationships discovered. This study provides a comprehensive overview of bricolage research in management studies and practical suggestions for researchers, practitioners, and policymakers to enhance the application of bricolage in various organizational and management contexts.

Keywords: Bricolage, innovation, entrepreneurship, creativity, bibliometric analysis
JEL Classification: M10, O31, O35.

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Öz

Brikolaj, antropolojiden türetilmiş yenilikçi bir kavram olup, mevcut kaynakların kullanımını teşvik etmesi bağlamında çağdaş yönetim uygulamaları üzerinde önemli bir etkiye sahiptir. Araştırmalar, özellikle kaynakların kıt olduğu gelişmekte olan ülkelerde, brikolaj kavramının örgütlerde yenilikçi düşünceyi ve uyum yeteneğini arttırdığını vurgulamaktadır. Bu kavramın çok yönlülüğüne rağmen, araştırmacılar yönetim alanında birkolaj odaklı yayınları incelemede kritik öneme sahip akademik kaynakları ve makaleleri belirleme zorluğu ile karşı karşıya kalabilirler. Bu nedenle, brikolaj üzerine yazında yer alan güncel eğilimleri kapsamlı bir şekilde gözden geçirip değerlendirmek için bibliyometrik bir analize ihtiyaç duyulmaktadır. Bu çalışma, yönetim çalışmalarında mevcut brikolaj yazınını inceleyerek araştırma eğilimlerini ve potansiyel boşlukları belirlemeyi amaçlamaktadır. Çalışmanın örneklemini, 2003'ten Mart 2024'e kadar Web of Science veritabanında yayımlanan toplam 209 makale oluşturmaktadır. VOSviewer, dergiler, yazarlar, ülkeler ve anahtar kelimeler arasındaki ilişkileri analiz etmek ve göstermek için kullanılmıştır. Elde edilen bulgulara brikolaj kavramı, girişimcilik alanındaki sınırlamaların üstesinden gelmek için örgütler için önemli bir araçtır. Ayrıca bulgulara göre Amerika Birleşik Devletleri, İngiltere ve Çin araştırma ağındaki önemli merkezlerdir. Bununla birlikte, anahtar kelime analizi, brikolaj kavramının yönetim alanında girişimcilik ile teknoloji, inovasyon, politika ve toplum gibi diğer alanlar arasında köprü kurmaya başladığını göstermiştir. Bu çalışma, yönetim çalışmalarında brikolaj araştırmalarına ilişkin kapsamlı bir genel bakış sunmanın yanı sıra, çeşitli örgütsel ve yönetim bağlamlarında brikolaj anlayışını geliştirmek için akademisyenlere, uygulayıcılara ve politika yapıcılara uygulamaya yönelik önerilerde bulunmaktadır.

Anahtar Kelimeler: Brikolaj, yenilikçilik, girişimcilik, yaratıcılık, bibliyometrik analiz
JEL Sınıflandırılması: M10, O31, O35.

1. Introduction

Many organizations cope with constraints within the environment in which they operate. Even when faced with limited resources, their businesses could thrive by finding solutions to issues and taking advantage of opportunities. Researchers who observed that organizations achieve great success with limited resources have examined the factors influencing this situation and revealed that the concept of bricolage plays a key role for organizations that succeed under challenging conditions (Baker & Nelson, 2005). Bricolage emerges as an explanatory notion for explaining how businesses in resource-constrained environments survive and thrive. It refers to creating or making things with existing elements. As a concept derived from anthropological studies, bricolage means using whatever is at hand and is associated with creativity and innovation. One notable characteristic of this notion is its capacity to reveal unforeseen processes through the utilization of materials that transcend traditional ways of thinking. The concept of bricolage, used in anthropology and various art forms, has been particularly examined in the field of management under the topic of entrepreneurship. Prior to the recognition of bricolage, prevailing theoretical assumptions regarding the characteristics of resources provided limited guidance in comprehending how entrepreneurs can generate value from insignificant resources. The existence of this gap has led to a rise in the utilization of bricolage in the field of management, particularly in clarifying the ongoing lack of integration between conventional organizational studies and entrepreneurship research (Archer et al., 2009; Baker & Nelson, 2005; Banerjee & Campbell, 2009).

Bricolage is a collaborative strategy that encourages the harmonious interplay between different fields of study, emphasizing different approaches and a wide range of theoretical and philosophical perspectives (Kincheloe, 2001). In management studies, the concept of bricolage has gained significant attention in recent years (Simba et al., 2021). From the perspective of management paradigm, bricolage refers to the practice of using available resources and improvisation to solve problems and take advantage of opportunities. This notion has been employed in several contexts, including innovation, service delivery, entrepreneurship, and others (Baker et al., 2003; Ferneley & Bell, 2007; Witell et al., 2017). It was first introduced by French anthropologist and ethnologist Lévi-Strauss, who defined bricolage as *"making do with what is at hand."* In the context of management studies, bricolage refers to solving problems and seizing opportunities by using available resources rather than seeking new ones. By incorporating this term into the management field, organizations approach problem-solving and innovation with a different approach. Bricolage has become increasingly vital in today's fast-paced and dynamic business environment since it allows entrepreneurs and organizations to explore and navigate resource constraints, especially in emerging economies where access to resources may be limited (Beckett, 2016).

Bricolage is closely associated with organizational resilience, improvisation and sensemaking, entrepreneurship, and the effective usage of technical systems (Duymedjian & Rüling, 2010; Yılmaz & Gerçek, 2022). The concept of entrepreneurial bricolage encompasses the skillful utilization of existing resources to accomplish entrepreneurial goals, including identifying opportunities, generating value, and attaining a competitive advantage (Baker & Nelson, 2005; Simba et al., 2021). Moreover, it is important to note that the notion of organizational bricolage goes beyond the domain of entrepreneurship and encompasses many mechanisms via which emerging businesses construct their identities by using existing organizational structures present in their surroundings (Perkman & Spicer, 2014).

Bricolage, the process of innovatively reusing existing resources to confront challenges or achieve objectives, produces various outcomes for organizations in different fields. Bricolage is a strategy that encourages adaptability and flexibility, allowing firms to quickly respond to changing market conditions (Austin et al., 2006). Additionally, the utilization of bricolage enables the implementation of both exploration and exploitation tactics, hence fostering a harmonious combination of creativity and performance (An et al., 2016). In addition, bricolage actively involves employees, promoting innovation, drive, and dedication, and enhances connections with stakeholders via collaborative efforts and sharing of resources (Iqbal et al., 2021).

Albeit the fact that the concept of bricolage has been studied from diverse perspectives (e.g. Scazziota et al., 2023) to our knowledge, there has not been a comprehensive assessment of the current trends regarding bricolage in the management context via bibliometric methods. Researchers could have challenges differentiating the essential academic sources and articles in the management domain from the extensive bricolage publications. Thus, a bibliometric analysis is required to examine and evaluate the current trends in bricolage literature carefully. Bricolage, which means solving problems and ensuring the continuity of a system by creatively using limited resources, could be considered a

strategic resource for organizations. Therefore, it is important to shed light on the current state of this significant concept in management research. Exploring how the concept of bricolage is studied in the field of management and identifying research trends can provide new ideas for both practitioners and researchers. Understanding what bricolage means for organizations, how it is examined in conjunction with other concepts, and in which areas it receives more attention can provide insights, especially for public and private sector institutions operating in environments facing resource constraints. Thus, this study aims to quantitatively analyze the body of the literature on bricolage within management studies to reveal the research trends and possibly mark the gaps in the literature. To achieve this goal, a bibliometric analytic strategy was utilized, which included citation, co-authorship, co-citation, and co-occurance analyses. Bibliometric approaches have the potential to enhance the depth and objectivity of scientific literature reviews (Zupic & Cater, 2014). Through the identification of current trends and gaps in the body of knowledge regarding bricolage in the field of management studies, this research offers a guide for subsequent research efforts. Researchers could find new ideas within their respective fields by concentrating on unexplored areas. In addition to providing a brief overview of current research that have examined the concept of bricolage in the management domain, this study provides recommendations for policymakers, practitioners, and academics to improve practical implementations of bricolage concepts across diverse organizational and management settings.

2. Literature Review

2.1. The Concept of "Bricolage"

In his influential book, "The Savage Mind" in 1966, Claude Lévi-Strauss introduced the concept of "bricolage" for defining how individuals interact with their surroundings. The bricoleur, a person who uses a unique method of repurposing materials, was brought to light by Lévi-Strauss. According to Lévi-Strauss (1966), bricolage behaviors have three major elements: *"resources at hand"*, *"recombination of resources for new purposes"*, and *"make do"*. He defined bricolage as the practice of using "*whatever is available."* Secondly, the subject of combining and reusing materials for purposes other than their original ones is another common thread in numerous studies that discuss bricolage. Thirdly, in contrast to engineers, who gather resources according to the requirements of a given project, bricoleurs gather and preserve a wide variety of materials, talents, and ideas. The reason behind collecting these objects is not an urgent necessity, but rather a belief that they could be beneficial in the future. Thus, instead of looking for specific equipment for each job, a *"bricoleur"* would improvise by using whatever is on hand (Lévi-Strauss, 1966). Bricolage includes improvisation, which involves modifying established methods of operation and employing innovative thinking to cope with environmental limitations (Weick, 1993). The concept of bricolage is also associated with innovation because it involves improvisation and generating new ideas. Banerjee and Campbell (2009: 473) introduced a distinct type of bricolage known as *"inventor bricolage,"* which encompasses the redistribution and recombination of current expertise. Inventor bricolage refers to the utilization of bricolage by organizations to rebuild current technological activities and channel them towards areas where novel and creative approaches can be developed. Hence, bricolage additionally serves as a chance to comprehend innovation as a procedure of combining resources that were first considered insignificant (Sharmelly & Ray, 2018). In other words,

by combining resources in unique ways, which are initially considered redundant or of no significance, they can result in innovation and create value. Uncovering this potential relies on bricolage capability.

Garud and Karnøe (2003) argue that bricolage is a behavior that emerges from the combined efforts and activities of individuals within various social collectives, in addition to being an individual phenomenon. According to Vanevenhoven et al. (2011), bricolage is a behavioral pattern that enables and achieves spontaneous reactions to unforeseen possibilities and situations. Considering bricolage as a behavioral pattern suggests that it could play a significant role in organizations being prepared for crises, or even if unprepared, in their ability to respond fast. Witel et al. (2017) introduced the concept of "*bricolage capability*," which refers to the capacity to utilize a certain type of bricolage effectively and provides a rationale for the varying levels of success observed among businesses when confronted with resource constraints. Moreover, Visscher et al. (2018) argue that bricolage may be distinguished from rational problem-solving techniques, which often employ systematic and standardized procedures and resources. Thus, bricolage goes beyond mere problem-solving or adherence to regulations; it entails incorporating unconventional viewpoints in problem-solving and making the most of available resources in the process.

Bricolage behaviors depend on resourcefulness. Also, bricolage frequently involves improvisation that heavily depends on the resourcefulness and fast thinking of the individuals, as opposed to deliberate and structured methods of traditional problem-solving (Archer et al., 2009; Baker et al., 2003). Bricolage behaviors often involve experimentation, wherein established norms are disregarded or skipped to investigate possible resolutions (Senyard et al., 2009). Also, a common characteristic of bricolage is the recombination of various resources, such as materials and methods, from different contexts or areas (Senyard et al., 2014). The bricolage process frequently involves collaborative effort, as combining varied skills, knowledge, and perspectives can significantly increase creative capacity (An et al., 2017). The collective nature of bricolage highlights its importance for teamwork. For instance, in cross-functional teams, individuals with diverse competencies can combine their skills to create synergy.

There are various antecedents of bricolage behavior, such as individual and environmental characteristics. Individual characteristics involve self-perceived identity, a sense of personal limits (Stinchfield et al., 2013), and intrinsic motivation (Scazziota et al., 2024). Epler and Leach (2021) suggest that salesperson bricolage is distinguished by attributes such as creativity, learning orientation, and grit. Additionally, Singh et al. (2023) identified entrepreneurial bricolage determiners as founder characteristics, human capital, environmental hostility, and resource constraints. In their study, Magobe et al. (2024) present an integrative model that underscores the impact of external determinants, including financial, knowledge, market, and regulatory constraints, on the execution and results of bricolage. The emergence of bricolage is influenced by both individual traits and the characteristics of the organization and its internal environment. The studies mentioned above suggest that bricolage is more likely to emerge in restrictive environments, where individuals and teams creatively use limited resources and unconventional approaches to solve problems.

2.2. The Use of "Bricolage" in Management Studies

Several theories have been developed to enhance comprehension of organizational dynamics by highlighting the significance of the operational environment. The interdependence between organizations and their surroundings emphasizes the need to consider external settings, pressures, and restrictions that affect them. Penrose (1959) posited that businesses with comparable material and human resource inputs could supply significantly distinct services to the market due to variations in their capacity to comprehend potential applications with these inputs. Additionally, Perrow (1986) argues that integrating an environmental viewpoint with an awareness of resource limitations could improve our knowledge of organizational behavior, going beyond conventional internal administrative frameworks. The presence of limited resources is perceived as an environmental factor that directly impacts the actions and outcomes of organizations. Environmental variables, such as the abundance of resources, significantly impact the life cycles of organizations in population ecology. These factors influence the establishment and dissolution of organizations (Hannan & Freeman, 1984). Baker and Nelson (2005) argue that businesses operating in resource-constrained environments have two distinct options. Entrepreneurial businesses sometimes employ resource-seeking strategies to alleviate restrictions, such as aiming to raise financing or equity inflows for their firms. Alternatively, businesses could choose to participate in a form of avoidance, although a distressing one, in order to evade the necessity of completing demanding activities given the constraints of inadequate resources.

According to Weick (1993), the concept of bricolage is associated with the ability of an individual or organization to effectively navigate and recover from a crisis scenario by preserving a sense of identity and the capability to act. Building upon this fundamental assumption, Lanzara and Patriotta (2001) clarify the notion of bricolage as a continuous and dynamic procedure distinguished by constant adjustments and enhancements. Within this context, bricolage is not only a temporary reaction to emergencies, but rather a long-lasting method characterized by ongoing experimentation, learning, and development. It is a continuous process of making sense of things and taking action, where people and organizations actively interact with their surroundings, repeatedly adapting their plans and methods based on changing conditions.

Resource Based View (RBV) commonly serves as a base for bricolage behavior in the organizational context (Sivathanu & Pillai, 2020). RBV theory asserts that a company may achieve a lasting competitive advantage by strategically utilizing its unique and valuable resources. Within this framework, bricolage could be considered a strategic reaction to resource limitations and environmental uncertainties. It involves the innovative gathering and reorganization of existing resources by individuals and organizations to effectively tackle emerging difficulties and capitalize on opportunities (Abid et al., 2023).

Baker et al. (2003) conducted a study investigating bricolage within an entrepreneurial context, indicating a significant milestone in the conceptual evolution of this notion. Entrepreneurship, which is considered a key characteristic of micro and small firms (Domenico et al., 2010), involves the strategic combination and inventive use of available resources, together with the creative

utilization of practical knowledge. Building upon Baker et al.'s (2003) research findings, Baker and Nelson (2005) investigated the responses of twenty-nine resource-constrained organizations operating in comparable environments. Their research showed notable disparities in the responses of different groups to environmental factors. Researchers noted that individuals in organizations with limited resources demonstrated bricolage behaviors, skillfully repurposing neglected inputs to tackle challenges, thereby setting themselves apart from competitors facing similar environmental constraints. On the other hand, Simba et al. (2021) argued that bricolage is an accidental reaction mechanism among micro and small enterprises (MSEs) facing disadvantaged circumstances, further confirming the inherent connection between resource scarcity and bricolage. From this perspective, micro and small enterprises use bricolage as a self-adjusting strategy to succeed in business environments with limited resources.

The term *"social enterprise"* has been used by governmental agencies and other actors in social entrepreneurship to refer to organizations driven by social causes (Di Domenico et al., 2010). Pearce (2003) provides a comprehensive overview of key activities operating within the domain of social entrepreneurship, including diverse areas including trade, service delivery agreements, education, vocational training, and community development. The concept of agency is crucial in the operational framework of social entrepreneurship, as it significantly influences the acquisition and development of resources in this field. The notion of the *"social enterprise bricoleur"*, as introduced by Di Domenico et al. (2010), differs from traditional viewpoints by effectively addressing the unmet requirements of companies through resourcefulness and invention. This approach highlights social entrepreneurship's proactive and adaptable characteristics, in which individuals effectively overcome obstacles and utilize existing resources to bring about beneficial social transformation. The social enterprise bricoleur demonstrates a dynamic method to solving societal needs and promoting lasting social impact among various communities by including agency into the process of resource gathering and usage.

Lévi-Strauss's understanding of bricolage focuses the idea of a "repertoire", which includes both tangible and intangible resources collected without any defined objectives or stated purposes (Duymedjian & Rüling, 2010). Bricolage is a methodological tool that creatively combines different materials and is considered a crucial driver of creativity (Ciborra, 2002). Perkman and Spicer (2014: 1786) provide additional detail on this notion, providing a definition of *"organizational bricolage"* as the mechanism via which emerging companies construct their identity by leveraging existing organizational structures within a specific context. Furthermore, Witell et al. (2017) have identified four bricolage capabilities in the context of service innovation within resource-constrained situations. These capacities include actively addressing resource scarcity, using available resources better, improvising during resource recombination, and establishing connections with external partners. Also, An et al. (2017) proposed an investigation into the function of bricolage as a catalyst for corporate entrepreneurship by recognizing an expanded variety of diverse opportunities. Therefore, it could be argued that bricolage is a strategic tool with high potential to provide sustainable competitive advantage.

According to Simba et al. (2021), a close connection exists between bricolage and organizational resources, including tangible and intangible assets. Organizations may achieve lasting competitive advantages by utilizing a wide range of resources, such as human, financial, and intellectual capital (Di Domenico et al., 2010). The need for developing and delivering new services to remain competitive is emphasized by service innovation, which is a primary focus in service research (Gebauer et al., 2011). Recent empirical studies on service innovation have brought attention to circumstances marked by different resource restrictions (Linna, 2013). In these circumstances, resource constraints are defined as lacking essential resources required for innovation (Cunha et al., 2014). Duymedjian and Rüling (2010) argue that the act of improvisation requires a systematic approach of *"trial-and-error experimentation"*, which enables the iterative acquisition of knowledge and skills by refining approaches based on lessons learned from both failures and successes. Acdording to the authors, using an iterative approach to improvisation highlights the inherent adaptability of bricolage, which enables organizations to handle resource limitations and foster creativity in dynamic contexts effectively.

Baker and Nelson (2005) suggest that bricolage behavior could assist firms in exploiting and investigating resources that could appear costly to seek using alternative methods. The impact of bricolage on the expansion of an organization depends on the presence of resources and the level of independence in utilizing these resources (Bojica et al., 2018). According to Senyard et al. (2014), resource-constrained organizations use bricolage to participate in the recombination processes essential for developing innovative results. Similarly, Dos Santos et al. (2021) found that organizations characterized by bricolage behavior exhibit enhanced capabilities for navigating transitions from market and technical instability to organizational innovation. As a dynamic process that enables organizations to resource recombination, constraint navigation, and innovation promotion, these insights collectively highlight the strategic significance of bricolage. Using bricolage behavior, organizations may efficiently exploit unexplored possibilities, stimulate expansion, and improve their competitive standing in ever-changing market conditions. The extensive examination of this topic across several subcategories within the field of management implies its potential for significant advantages for organizations. Hence, it is anticipated that discovering universal trends associated with this notion will offer guidance for practitioners and researchers. Drawing upon the existing research the research question of this study as follows:

"What are the main trends and topics associated with bricolage in management literature, as observed by citation, co-authorship, co-citation and co-occurrence analyses?"

3. Methodology

3.1. Analytic Procedure

This study utilizes bibliometric analysis to investigate publishing trends within the field of management, specifically focusing on the concept of "bricolage." Bibliometrics, as defined by Pritchard (1969), applies mathematical and statistical techniques to analyze information distribution trends across publications, facilitating a quantitative review of academic literature. The analysis was

conducted using the Web of Science (WoS) database in conjunction with VOSviewer software, a tool designed for constructing and visualizing bibliometric networks. This approach allowed the researchers to examine publications against established criteria systematically, and to present the findings through detailed tables and informative diagrams, thereby illustrating trends and concentrations in management studies related to bricolage.

3.2. Sample and Data Collection

The initial phase of the research entailed defining strict criteria for publication selection to ensure relevance and robustness following the recommendations by Liu et al. (2013). The search criteria involved publications that were:

- Contained the term "bricolage" in the title (to ensure a more robust search process and with the main focus being on bricolage),
- Only articles including theoretical, conceptual and empirical ones (to eliminate gray literature)
- Published in either English or Turkish (due to researchers' language limitations)
- Pertained to the field of management.

This criterion was established emphasizing the importance of precise and pertinent data retrieval. The Clarivate Analytics Web of Science (WoS) database was selected for its extensive coverage and established reliability in conducting bibliometric analyses (Mongeon & Paul-Hus, 2016). WoS has numerous notable advantages that are specifically applicable to the subject of management studies, in contrast to other academic databases like Scopus or other databases. To begin with, the Web of Science (WoS) offers a comprehensive indexing framework that guarantees the integrity of citation data, a crucial factor in facilitating dependable bibliometric investigations. Moreover, WoS encompasses a substantial array of influential journals within the context of management, involving indexes such as the Science Citation Index (SCI), the Social Sciences Citation Index (SSCI), and the Emerging Science Citation Index (ESCI). This research included all those indexes. Additionally, WoS covers an important selection of high-impact journals within the field of management. Access to this database was secured through institutional credentials, which ensured comprehensive retrieval of the publications. On April 8, 2024, the dataset for this study was retrieved from the WoS. Each publication identified through the search was meticulously examined to confirm it met the established criteria.

The preliminary investigation yielded a total of 741 publications. Initially, book chapters, book reviews, conference proceedings, and other similar types of publications were excluded due to their classification as gray literature. This exclusion procedure resulted in removing 139 publications, leaving 602 articles. Subsequently, articles were further filtered based on language, retaining only those written in English, which amounted to 574 articles. Afterwards, an evaluation was conducted on the titles and abstracts to identify articles specifically directed at bricolage within the management domain. A total of 365 papers, originating from diverse and unrelated fields, were subsequently

excluded from consideration due to their failure to match the predetermined criteria. Ultimately, 209 studies were deemed suitable for inclusion, aligning with the guideline that a minimum sample size in bibliometric analysis should exceed 200 (Rogers et al., 2020).

3.3. Visualization Techniques

The open-source program VoSviewer was utilized to visualize the links among journals, authors, countries, and keywords. Utilizing the VoS (Visualization of Similarity) mapping approach (van Eck & Waltman, 2010) is essential for the study as it effectively represents the connection and similarity across various bibliometric aspects. The visualization tool chosen for this study was VOSviewer, which was selected based on its distinct capabilities in managing extensive bibliometric datasets and its user-friendly interface for visualizing and evaluating data. The effective clustering techniques employed by VOSviewer facilitate the identification and definition of research trends. The utilization of labels and circle sizes in visual representations expresses the frequency of occurrence. Color-coded clusters have been used to designate clusters, while the physical closeness between circles signifies the level of relatedness or similarity.

4. Findings

4.1. General Information on Publication Titles and Years

The findings include general information about publication titles and years, citation analyses, co-authorship analyses, co-citation analyses, and co-occurrence analyses. Table 1 provides a list of journals that have published papers exploring the notion of bricolage in management. The table also includes the corresponding number of articles or publications on this topic within each journal.

"Entrepreneurship and Regional Development" journal includes 12 articles on the topic of bricolage. This substantial number underscores the significance of bricolage within entrepreneurial research, particularly in regional development contexts. Secondly, "Journal of Business Research" included 8 articles related to bricolage. Thirdly, in "IEEE Transactions on Engineering Management", 5 articles investigate the concept of bricolage within the domain of engineering management. This indicates an increasing academic interest in comprehending the use of bricolage principles in addressing technical challenges, enhancing resource allocation, and fostering creativity in engineering-focused environments.

Table 1: Publication Titles and Record Counts

Publication Titles	Record Count	% of 209
Entrepreneurship and Regional Development	12	5,742
Journal of Business Research	8	3,828
IEEE Transactions on Engineering Management	5	2,392
Technology Analysis & Strategic Management	5	2,392
International Journal of Entrepreneurial Behavior Research	4	1,914

International Journal of Entrepreneurship and Innovation	4	1,914
Journal of Entrepreneurship in Emerging Economies	4	1,914
Journal of Small Business and Enterprise Development	4	1,914
R&D Management	4	1,914
Advances in Entrepreneurship Firm Emergence and Growth	3	1,435
Asia Pacific Journal of Management	3	1,435
Business Strategy and Development	3	1,435
Business Strategy and the Environment	3	1,435
Entrepreneurship Theory and Practice	3	1,435
European Journal of Information Systems	3	1,435
European Journal of Innovation Management	3	1,43
Journal of Business Venturing	3	1,435
Management Decision	3	1,435
Research Policy	3	1,435
Technological Forecasting and Social Change	3	1,435
Administration Society	2	0,957
Entrepreneurial Resourcefulness Competing with Constraints	2	0,957
Entrepreneurship Research Journal	2	0,957
Innovation Organization Management	2	0,957
International Entrepreneurship and Management Journal	2	0,957
Journal of Business Industrial Marketing	2	0,957
Journal of Developmental Entrepreneurship	2	0,957
Journal of Product Innovation Management	2	0,957
Journal of Small Business Management	2	0,957
Organizational Research Methods	2	0,957
Policy and Politics	2	0,957
Public Money Management	2	0,957
Risus Journal on Innovation and Sustainability	2	0,957
Small Business Economics	2	0,957
Less than two articles per journal	198	94,737
Total	209	100

Table 2 presents the chronological distribution of articles related to bricolage within the domain of management. The distribution that has been observed shows different levels of academic interest to the topic throughout different periods in time. There was a significant interest in 2021, with a total of 31 articles. The previous year, 2020, had a significant number of publications, with 27 articles. However, a decrease in the quantity of papers published in 2024 was seen, with only 12 articles. Nevertheless, the reduced number of papers in 2024 could be attributed to the timing of the current research since article production could have been in progress or unfinished during the data collection period of the current study.

Table 2: Publication Years and Record Counts

Publication Years	**Record Count**	**% of 209**
2024	12	5.742

2023	25	11.962
2022	21	10.048
2021	31	14.833
2020	27	12.919
2019	13	6.220
2018	15	7.177
2017	11	5.263
2016	10	4.785
2015	4	1.914
2014	8	3.828
2013	8	3.828
2012	3	1.435
2011	6	2.871
2010	4	1.914
2009	1	0.478
2008	1	0.478
2007	3	1.435
2006	1	0.478
2005	4	1.914
2003	1	0.478
Total	209	98.088

4.2. Citation Analyses

VOSviewer is a software application for creating and visualizing bibliometric network which uses citation data to generate maps that depict the relationships between these entities based on citations. These maps could assist in identifying the most prominent publications or authors on a certain topic, track trends over time, and highlight the structure and dynamics of scientific research. Because of these characteristics, VOSviewer has been used for citation analysis.

4.2.1. Citation Analysis in Terms of Sources

A total of 133 articles were found to meet the requirement by evaluating the minimum number of documents from a source as "1," and the minimum number of citations from a source as "1". Table 3 displays the 20 journals that have the largest number of citations and the overall strength of their links. The data presented clarifies the influence and interconnections among various journals. Although "Administrative Science Quarterly" only has one document, it distinguishes itself with a substantial number of citations (2001) and total link strength (154). In addition to having three articles, "Entrepreneurship Theory and Practice" has a significant number of citations (1183) and total link strength (159), showing its significance in the field of entrepreneurial studies. Similarly, "Research Policy," also with three documents, has 617 citations with total link strength of 98, reflecting its significance to bricolage in research and policy domain.

Table 3: Citation analysis – Unit of Analysis: Sources

Journals	Documents	Citations	Total link strength
Administrative Science Quarterly	1	2001	154
Entrepreneurship Theory and Practice	3	1183	159
Research Policy	3	617	98
Journal of Business Research	8	427	192
Entrepreneurship and Regional Development	12	418	205
Journal of Product Innovation Management	2	359	123
Journal of Business Venturing	3	257	72
Journal of Management Studies	1	239	36
Organization Studies	1	237	70
Asia Pacific Journal of Management	3	204	47
Academy of Management Review	1	158	11
Administration & Society	2	136	16
Technological Forecasting and Social Change	3	125	12
Policy and Politics	2	123	6
Organizational Research Methods	2	122	4
Strategic Entrepreneurship Journal	1	119	21
Journal of Innovation Economics & Management	1	100	0
International Journal of Entrepreneurship and Innovation	4	100	72
Small Business Economics	2	99	27

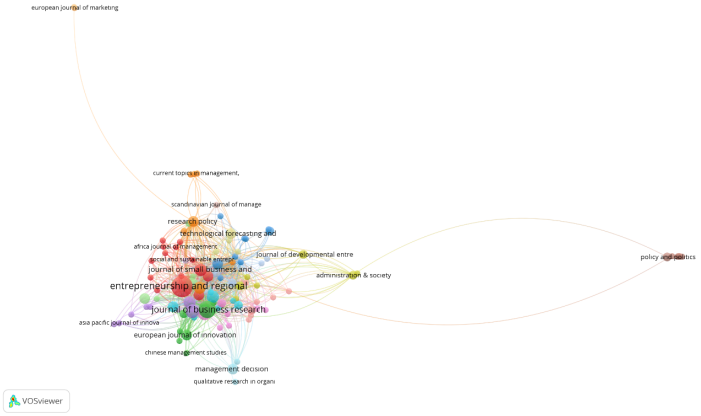

Figure 1: Citation analysis – Unit of Analysis: Sources

Figure 1 illustrates how citation analyses are clustered in terms of source units. Different colors represent journals that are clustered together. The network visualization depicts an item using its title and, by default, a circle. In Figure 1, the weight of an object indicates the size of its label and circle. While an item's label and circle size are corresponding to its weight. (Eck & Waltman, 2023).

4.2.2. Citation Analysis in Terms of Authors

417 articles met the standards by taking an author's minimum number of documents as "1" and their minimum number of citations as "1." Table 4 shows the most frequently mentioned 20 authors, papers,

and total link strengths. The results pertaining to the three writers with the highest number of citations provide a substantial contribution to the understanding of bricolage. With two papers, Baker stands out with a total link strength of 696 and a citation count of 2574. Despite having only one article, Nelson has a significant citation count with 2001 citations and a cumulative link strength of 432. Also, Di Domenico, with only a single document, has a citation count of 605 and a total link strength of 200.

Table 4: Citation analysis – Unit of Analysis: Authors

Author	Documents	Citations	Total link strength
Baker, T.	2	2574	696
Nelson, R.	1	2001	432
Di Domenico, M.	1	605	200
Haugh, H.	1	605	200
Tracey, P.	1	605	200
Eesley, D.	1	573	266
Miner, A.	1	573	266
Baker, T.	6	530	589
Fisher, G.	1	478	189
Davidsson, P.	3	364	431
Linna, P.	2	321	114
Zhang, J.	6	300	381
Senyard, J.	2	269	298
Steffens, P.	1	267	243
Duymedjian, R.	2	250	212
Rueling, C.	2	250	212
Halme, M.	1	239	103
Lindeman, S.	1	239	103
Su, Z.	3	219	160
Liu, H.	4	204	328

4.2.3. Citation Analysis in Terms of Articles

Table 5 displays the 20 most frequently referenced documents. These data on the top 20 most-referenced publications demonstrate the significant contributions made by scholars to the examination of bricolage in management contexts. Baker and Nelson's (2005) article, *"Creating something from nothing: Resource construction through entrepreneurial bricolage,"* with 2001 citations, focuses on entrepreneurial bricolage. Di Domenico et al.'s (2010) study, *"Social bricolage: Theorizing social value creation in social enterprises,"* has received 605 citations. This research contributes significantly to the theoretical discussion on social entrepreneurship by introducing the concept of *"social bricolage."* Thirdly, Baker et al.'s study (2003), titled *"Improvising firms: bricolage, account giving, and improvisational competencies in the founding process,"* provide valuable insights into organizational improvisation, bricolage, and entrepreneurship and it has received 573 citations. Other studies and citation counts are shown in Table 5.

Table 5: Citation analysis – Unit of Analysis: Documents

Author	Article Title	Citations
Baker & Nelson (2005)	*"Creating something from nothing: Resource construction through entrepreneurial bricolage"*	2001
Di Domenico et al. (2010)	*"Social bricolage: Theorizing social value creation in social enterprises"*	605
Baker et al. (2003)	*"Improvising firms: Bricolage, account giving and improvisational competencies in the founding process*	573
Fisher (2012)	*"Effectuation, causation, and bricolage: A behavioral comparison of emerging theories in entrepreneurship research"*	478
Senyard et al. (2014)	*"Bricolage as a path to innovativeness for resource-constrained new firms"*	267
Halme et al. (2012)	*"Innovation for inclusive business: Intrapreneurial bricolage in multinational corporations"*	239
Duymedjian & Ruling (2010)	*"Towards a foundation of bricolage in organization and management theory"*	237
Boxenbaum & Rouleau (2011)	*"New knowledge products as bricolage: Metaphors and scripts in organizational theory"*	158
Salunke et al. (2013)	*"Competing through service innovation: The role of bricolage and entrepreneurship in project-oriented firms"*	150
Baker (2007)	*"Resources in play: Bricolage in the Toy Store"*	135
Welter et al. (2016)	*"Bridging behavioral models and theoretical concepts: effectuation and bricolage in the opportunity creation framework"*	119
Stone (2017)	*"Understanding the transfer of policy failure: bricolage, experimentalism and translation"*	115
Pratt et al. (2022)	*"Moving beyond templates: A bricolage approach to conducting trustworthy qualitative research."*	113
Guo et al. (2016)	*"Business model innovation: The effects of exploratory orientation, opportunity recognition, and entrepreneurial bricolage in an emerging economy"*	110
Witell et al. (2017)	*"A bricolage perspective on service innovation"*	108
Wu et al. (2017)	*"Bricolage effects on new-product development speed and creativity: The moderating role of technological turbulence"*	100
Stinchfield et al. (2013)	*"Learning from Levi–Strauss' legacy: Art, craft, engineering, bricolage, and brokerage in entrepreneurship"*	100
Fuglsang (2010)	*"Bricolage and invisible innovation in public service innovation"*	100
Molecke & Pinkse (2017)	*"Accountability for social impact: A bricolage perspective on impact measurement in social enterprises"*	96

4.2.4. Citation Analysis in Terms of Countries

Regarding countries, 46 countries satisfied the criteria by meeting the minimum number of papers and citations requirement of '1'. Table 6 displays the nations with the most publications, as measured by citations. The United States (USA) significantly contributes to bricolage studies in a management context, with a total of 46 documents. Brazil has 9 documents, has a citation count of 2202 and a total link strength of 439. England has a citation count of 1649 and a total link strength of 692 with 35 documents.

Table 6. Citation analysis – Unit of Analysis: Countries

Country	Documents	Citations	Total Link Strength
USA	46	4474	1276
Brazil	9	2202	439
England	35	1649	692
France	16	867	358
People's R China	43	857	772
Australia	15	769	460
Denmark	12	547	189
Finland	9	510	202
Belgium	5	277	173
Canada	9	276	143
Germany	12	249	216
Italy	15	196	208
Sweden	8	172	151
Portugal	9	159	214
Norway	4	156	61
India	8	140	198
Netherlands	6	129	52
Switzerland	3	125	66
Scotland	2	92	5
Malaysia	4	91	81
South Africa	5	89	115
Spain	6	86	81
Pakistan	3	82	54
Colombia	2	59	40
Wales	4	54	41
Mexico	1	52	34
Austria	3	39	30
Singapore	3	39	8
Uganda	2	33	36
Taiwan	7	27	148
Malawi	1	17	13
Israel	1	16	12
Ghana	5	13	103
Peru	1	12	24
Iran	1	12	23
Chile	2	9	18
Egypt	1	7	18
Sri Lanka	3	7	57
Japan	3	5	66
Turkey	1	5	27
South Korea	2	4	42
Bangladesh	2	2	46
Hungary	1	2	2
Oman	1	2	21
Slovenia	1	1	4
Thailand	1	1	15

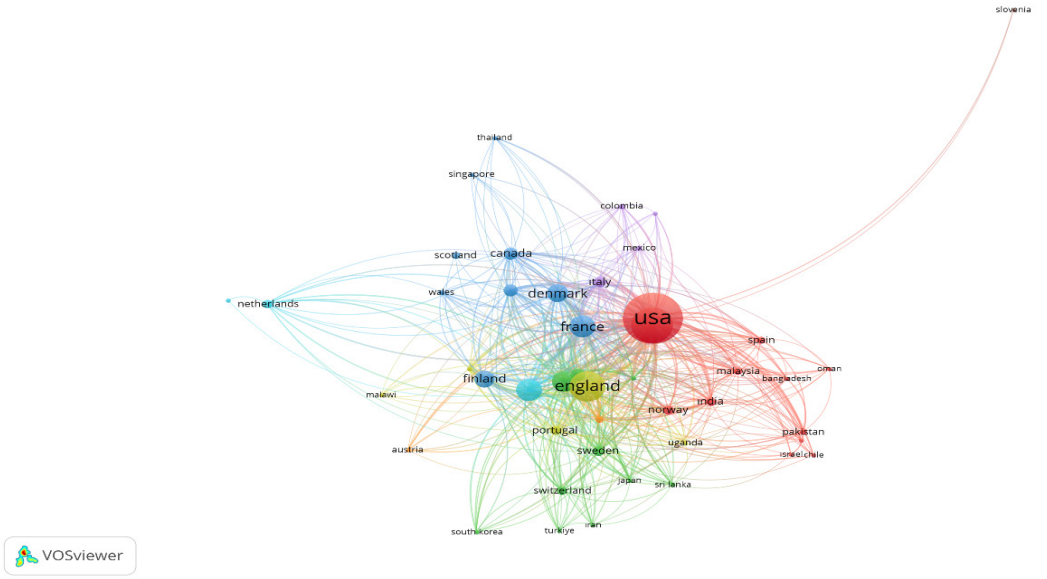

Figure 2. Citation analysis – Unit of Analysis: Countries

Figure 2 displays the clusters of countries based on citations. In the context of network analysis, the largest circles represent countries with the greatest number of citations. The countries with the highest number of citations are the United States of America, Brazil, and England.

4.3. Co-Authorship Analyses

Co-authorship analysis focuses on discovering collaboration patterns among academics by examining the co-authorship networks that emerge from their shared publications. This analysis often focuses on the number of co-authored articles and various partnerships among institutions or countries. In this study, co-authorship analysis in terms of countries and authors were presented.

4.3.1. Co-Authorship Analysis in Terms of Countries

Table 7 presents the co-authorship analysis based on countries, providing information on the numbers of documents, citations, and total link strength. The review of co-authorship reveals significant patterns of collaboration and research across countries. The USA has a significant presence in bricolage research, as seen by its 46 documents and citation count of 4474. Secondly, the People's Republic of China has a total of 43 papers and 857 citations. Also, England has 35 documents and 1649 citations.

Table 7: Co-Authorship Analysis – Unit of Analysis: Countries

Countries	Documents	Citations	Total link strength
USA	46	4474	43
People's Republic of China	43	857	32
England	35	1649	44
France	16	867	16
Australia	15	769	17
Italy	15	196	10
Denmark	12	547	10
Germany	12	249	22
Brazil	9	2202	9
Canada	9	276	10
Finland	9	510	6
Portugal	9	159	21
Sweden	8	172	22
India	8	140	7
Taiwan	7	27	4
Netherlands	6	129	7
Spain	6	86	5
Belgium	5	277	8
Ghana	5	13	6
South Africa	5	89	8
Malaysia	4	91	4
Norway	4	156	4
Wales	4	54	7
Austria	3	39	2
Japan	3	5	9
Pakistan	3	82	2
Singapore	3	39	3
Sri Lanka	3	7	4
Switzerland	3	125	7
Bangladesh	2	2	5
Chile	2	9	1
Colombia	2	59	2
Scotland	2	92	0
South Korea	2	4	0
Uganda	2	33	1
Egypt	1	7	1
Hungary	1	2	4
Malawi	1	17	2
Mexico	1	52	1

Oman	1	2	1
Peru	1	12	0
Qatar	1	0	4
Slovenia	1	1	0
Tanzania	1	0	1
Thailand	1	1	1
Turkey	1	5	4
United Arab Emirates	1	0	4
Iran	1	12	0
Israel	1	16	1

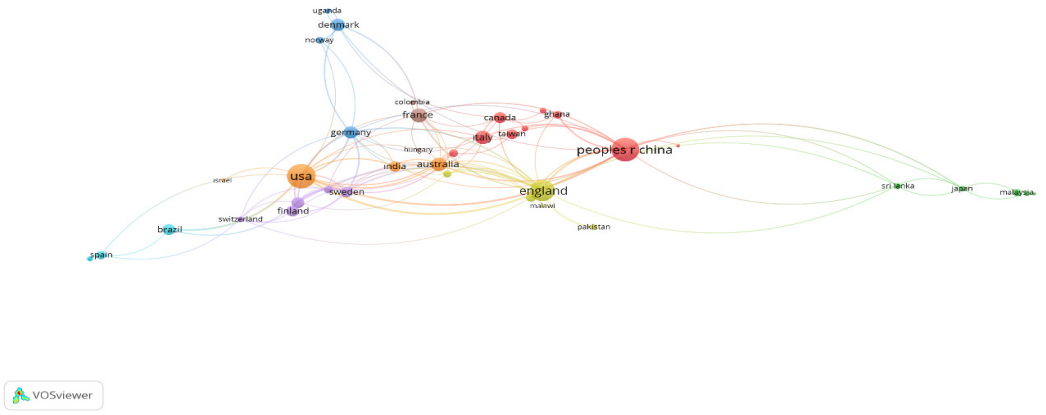

Figure 3: Co-Authorship Analysis – Unit of Analysis: Countries

Figure 3 displays a network analysis of co-authorship by country based on the total link strength. The USA, England, and the People's Republic of China are the most interconnected research hubs. Among the nine clusters formed, the strongest connections are found within the clusters of these three countries. It was observed that the USA has co-authorship links with countries such as India and Australia, England with Malawi and Pakistan, and China with Canada, Italy, and Taiwan.

4.3.2. Co-Authorship Analysis in Terms of Authors

Table 8 presents a co-authorship analysis by the author, detailing the number of documents, citations, and total link strength. This table shows individual authors' collaborative work and impact within the academic community focusing on bricolage. For instance, Baker has 8 documents and 3104 citations within bricolage studies. Zhang also contributed bricolage research with 6 documents which has 300 citations. Additionally, Liu has 5 documents with 225 citations. These authors are important in contributing bricolage studies in the field of management.

Table 8: Co-Authorship Analysis – Unit of Analysis: Authors

Author	Documents	Citations	Total Link Strength
Baker, T., Z.	8	3104	7
Zhang, J.	6	300	10
Liu, H.	5	225	10
Yu, X.	4	164	7
An, W.	3	174	5
Bacq, S.	3	139	4
Bradby, H.	3	33	11
Brand, T.	3	33	11
Ciambotti, G.	3	34	7
Davidsson, P.	3	364	6
Fuglsang, L.	3	171	0
Nelson, R.	3	2043	3
Padilla, B.	3	33	11
Phillimore, J.	3	33	11
Sahi, G., K.	3	68	2
Sarkar, S.	3	3	1
Su, Z.	3	219	2
Wu, L.	3	112	5
Zaccone, M., C.	3	34	7
Ahmad, N., H.	2	90	1
Bojica, A., M.	2	62	0
Bontis, N.	2	22	6
Borini, F., M.	2	41	0
Cheung, C., W.	2	58	7
Cicellin, M.	2	7	4
Consiglio, S.	2	7	4
De Jong, M.	2	78	0
Duymedjian, R.	2	250	2
Epler, R., T.	2	55	2
Garud, N.	2	51	2
Griffiths, M., D.	2	77	3
Guerrazzi, L.	2	12	1
Gundry, L., K.	2	134	4
Guo, Z.	2	47	3
Kickul, J.	2	56	3
Kickul, Jr.	2	134	4
Kim, Y., A.	2	30	7
Kraus, S.	2	16	0
Kwong, C.	2	56	4
Kwong, C., C.	2	70	6
Leach, M., P.	2	55	2
Li, X.	2	7	0
Li, Y.	2	115	4

Lima, E.	2	42	2
Linna, P.	2	321	0
Liu, W.	2	46	3
Mantok, S.	2	64	2
Manzoor, H.	2	58	7
Meng, X.	2	31	4
Nelson, R., E.	2	106	2
Pemberton, S.	2	23	8
Rahman, S., A.	2	48	1
Rashid, M., U.	2	58	7
Rueling, C., C.	2	250	2
Scuotto, A.	2	7	4
Senyard, J.	2	269	2
Senyard, J., M.	2	97	4
Servantie, V.	2	59	0
Sgro, F.	2	22	6
Stinchfield, B., T.	2	106	2
Stone, D.	2	117	0
Wang, X.	2	49	3
Yang, M.	2	38	0

4.4. Co-Citation Analyses in Terms of Sources

Co-citation analysis is distinct from citation analysis in that it specifically assesses the citations received by two or more papers from a third document. The current study determined co-authorship analyses based on the sources used. The threshold of 64 was met by selecting a minimum of 20 citations for a cited reference. Table 9 displays the results of the co-citation analysis in terms of sources. The table presents a co-citation analysis that specifically examines sources, showing the frequency of citations and the total strength of links within the current bricolage studies. It was determined that "Entrepreneurship Theory and Practice" has been cited a total of 524 times, while "Journal of Business Venturing" received 512 citations and "Administrative Science Quarterly" received 397 citations.

Table 9: Co-Citation Analysis – Unit of Analysis: Sources

Source	Citations	Total Link Strength
Entrepreneurship Theory and Practice	524	26979
Journal of Business Venturing	512	27804
Administrative Science Quarterly	397	18540
Academy of Management Review	396	20508
Strategic Management Journal	356	20223
Journal of Business Research	335	21044
Academy of Management Journal	329	18136
Organizational Science	285	14331
Research Policy	284	12983
Entrepreneurship and Regional Development	257	12903

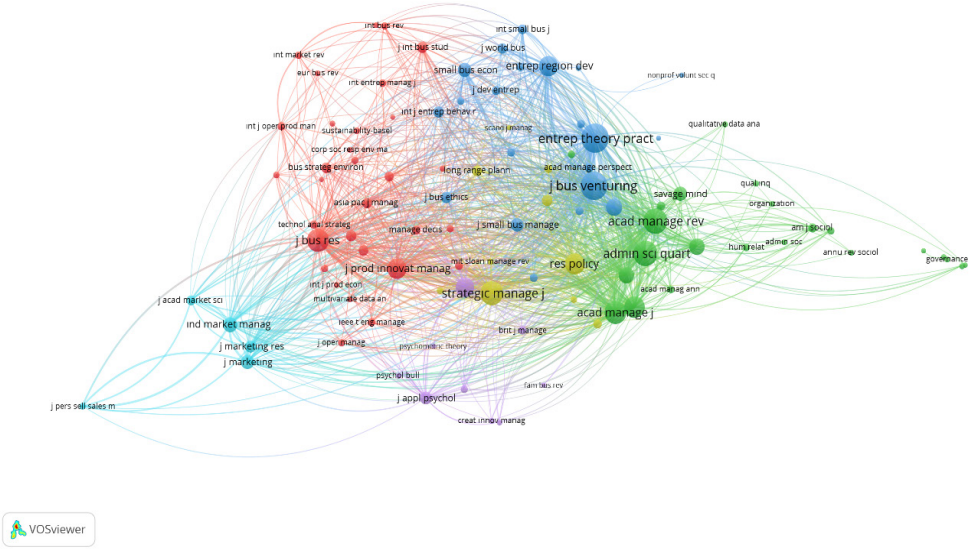

Figure 4: Co-Citation Analysis – Unit of Analysis: Sources

Figure 4 illustrates the connections between citations across various journals. The clusters represented by red, blue, and green colors present the densest connections. Within these clusters, "Entrepreneurship Theory and Practice" is grouped together with "Journal of Business Venturing" and "Entrepreneurship and Regional Development." Similarly, "Administrative Science Quarterly" is grouped together with "Academy of Management Review" and "Academy of Management Journal." Moreover, "Journal of Business Research" is grouped together with "Journal of Product Innovation Management" and "R&D Management." The findings indicate that journals related to general management are grouped together, while journals focused on innovation and creativity are grouped together.

4.5. Co-Occurance Analysis in terms of Keywords

Keywords provide important data for readers regarding which concepts an article focuses on. All keywords from the articles were examined, yielding a total of 603 distinct keywords. Table 10 displays the 20 most commonly occurred keywords in the publications, in addition to their frequency of occurrence and the total strength of their links. The term "bricolage" was used 110 times in the publications, accounting for a total link strength of 479. Similarly, "entrepreneurial bricolage" was used 27 times with a total link strength of 123. This finding strongly emphasizes the entrepreneurial aspects of bricolage in management domain. The keywords "entrepreneurship" and "social entrepreneurship" was used 21 and 15 times, respectively.

Table 10: Co-Occurance Analysis – Unit of Analysis: Keywords

Keyword	Occurrences	Total Link Strength
Bricolage	110	479
Entrepreneurial Bricolage	27	123
Entrepreneurship	21	104
Social Entrepreneurship	15	56
Effectuation	10	46
Resource Bricolage	9	36
SMEs	9	44
Innovation	8	45
Social Bricolage	8	38
Business Model Innovation	6	23
Entrepreneurial Orientation	6	26
Resource Constraints	6	38
Resource Mobilization	6	27
Social Innovation	6	25
Competitive Advantage	5	22
Emerging Markets	5	34
Causation	4	16
COVID-19	4	23
Performance	4	30

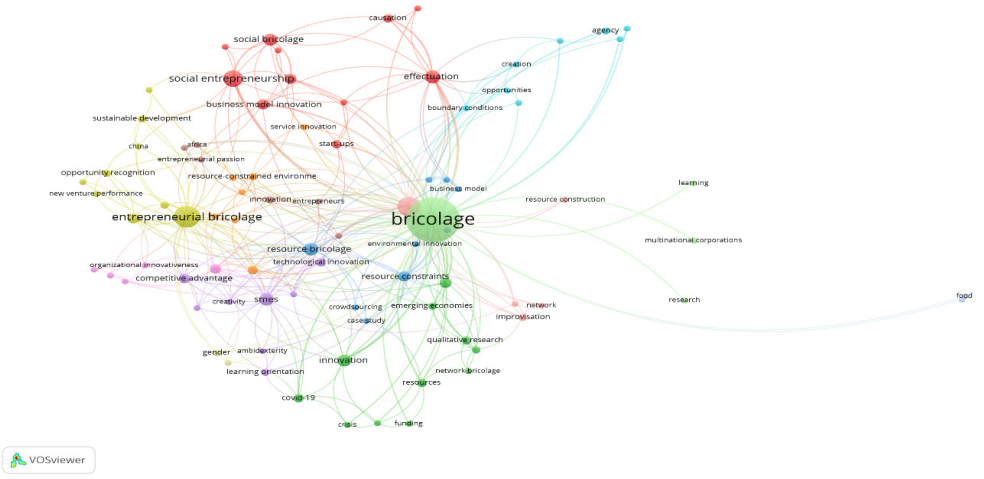

Figure 5: Co-Occurance Analysis in terms of Keywords

According to the network visualization of keywords seen in Figure 5, "bricolage" is the most frequently used keyword, with significant linkages to "innovation", "resources", and "emerging economies". The study revealed 13 clusters, with the most prominent ones highlighted in green, red, and yellow colors. "Social entrepreneurship" is associated with business model innovation, "social bricolage", and

"effectuation", whereas "entrepreneurial bricolage" is associated with "opportunity recognition" and "new venture performance". These findings suggest that these concepts have been grouped together due to their conceptual similarities and interdependence in terms of their relevance to organizations.

5. Conclusion and Discussion

This study aims to explain how the concept of bricolage, prominent in anthropology and art studies, has been reflected in the field of management. To achieve this goal, bibliometric analysis methods have been used to provide insights into general trends. It has been observed that studies incorporating the concept of bricolage in management reached their peak in 2021. The findings based on years show that the concept of bricolage has great potential in the field of management, and that interest in it is growing. Exploring bricolage in entrepreneurship and regional development emphasizes its pivotal role in creating value in local contexts. This substantial focus suggests that bricolage is a critical mechanism by which entrepreneurs in various regions leverage available resources to overcome constraints and foster regional growth (Baker & Nelson, 2005). This finding aligns with the theory that entrepreneurial bricolage can drive innovation and economic development at the regional level by enabling more adaptive and responsive business practices. However, the presence of a considerable number of articles in general business journals and in the field of engineering management also points to the applicability of the bricolage concept across various facets of management. In other words, the concept of bricolage could be considered an interdisciplinary topic due to its exposure to increasing interest among researchers in management studies in recent years, as well as its examination in fields such as regional development, entrepreneurship, and engineering management.

According to this study's findings, the journals "Entrepreneurship and Regional Development", "Journal of Business Research", and "IEEE Transactions on Engineering Management" publish most bricolage studies in management. The fact that most articles appear in an entrepreneurship-related journal could be considered evidence that the notion of entrepreneurial bricolage is the concept's entrance point into the management discipline. The concept of bricolage, which entails the skills required to achieve success with limited resources, is a source of motivation for the concept of entrepreneurship. Additionally, the presence of articles examining the concept of bricolage in journals such as "IEEE Transactions on Engineering Management" and "Technology Analysis & Strategic Management" suggests that this concept also has applications in the field of engineering. It is possible to assert that the concept of bricolage is situated at the intersection of engineering and management disciplines in this context. Bricolage is also considered in relation to concepts commonly addressed by both management and engineering fields, such as organizational resilience (Park & Seo, 2024), adaptation (Yu et al., 2020), and strategic agility (e.g., Iqbal et al., 2020).

Citation analyses show that the journals with the most cited bricolage studies in management are those focused on management, business, entrepreneurship, and research policy. The most frequently cited authors are Baker, Nelson, and Di Domenico. Additionally, the article "Entrepreneurial Bricolage" by Baker and Nelson from 2005 is the most frequently cited. This study is regarded as

one of the pioneering works in the notion of entrepreneurial bricolage, and as such, it is frequently cited for its role in bringing bricolage to the field of management. Di Domenico et al.'s (2010) study on social bricolage is the second most cited article. This research is widely acknowledged since it brought the notion of social bricolage to the management field. Furthermore, Baker et al.'s (2003) study on the relationship between bricolage and innovation is frequently cited because of its practical significance for businesses. In this study, citations based on sources indicated that entrepreneurship and administration-focused journals are significant with their high citation counts, and link strengths underline their role in shaping the research around entrepreneurship and innovation.

The United States of America, the People's Republic of China, and England have the highest number of papers and citations when co-authorship analyses are examined in terms of countries. According to the co-authorship analysis, Baker, Zhang, and Liu are the authors who have collaborated and received the most citations. In terms of sources, "Entrepreneurship Theory and Practice" is categorized alongside "Journal of Business Venturing" and "Entrepreneurship and Regional Development." Similarly, the journal "Administrative Science Quarterly" is classified alongside the journals "Academy of Management Review" and "Academy of Management Journal." Furthermore, the "Journal of Business Research" is categorized alongside the "Journal of Product Innovation Management" and "R&D Management." These groupings indicate that publications published in journals with comparable themes tend to reference one another. For instance, the clustering of general management publications and the distinct grouping of journals focused on innovation and creativity could point to this pattern.

The collaborative patterns showed that especially among leading countries like the USA, England, and China, highlight the global and interconnected nature of research in this field. The network analysis that identifies the USA, England, and China as the most interconnected hubs underscores their strategic importance in the global research network. The strong presence of the USA, China, and England in global research networks could be largely attributed to substantial economic and institutional support (Frankel et al., 2015). On the other hand, considering that this study includes only journals in the Web of Science database with high impact factors, and the editorial boards of these journals are predominantly composed of members from these English-speaking countries, it is not surprising that the highest citations come from the USA and England.

Keywords could provide useful insights into the patterns and trends of a topic being examined. Based on the findings, the keyword that appears most frequently in bricolage research in the field of management is "bricolage." This is a predictable outcome, given the notion of bricolage is a prominent subject of discussion in these articles. Additional terms that are relevant include "entrepreneurial bricolage," "entrepreneurship," and "social entrepreneurship." Thus, it could be asserted that the prevailing subjects in this domain are the connections between entrepreneurship and bricolage. The prominence of keyword "bricolage" in academic discourse reflects a broader shift towards understanding how limited resources can be innovatively used to overcome constraints in entrepreneurial contexts, particularly relevant in times of economic uncertainty or in resource-scarce environments (Baker & Nelson, 2005). Moreover, the rise in keywords related to "social

entrepreneurship" aligns with increasing academic and societal interest in business practices that also address social issues, reflecting the growing importance of corporate social responsibility (Santos, 2012). The associations found in keyword analysis suggest a trend towards interdisciplinary research that bridges entrepreneurship with technology, policy, and societal impacts. In addition, the presence of terms such as "innovation" and "business model innovation" has also been observed. Researchers in the future could want to investigate the relatively understudied connections between bricolage and innovation, as this field seems to have fewer studies compared to entrepreneurial bricolage. In simpler terms, the journals where bricolage studies are published, the most cited articles, and the most frequently encountered keywords highlight the breadth of application of the concept of bricolage. Furthermore, it should be highlighted that the notion of bricolage could be addressed at both the individual and group levels, and in both the private and public sectors.

The consistent prominence of "bricolage" in articles points to its importance as a framework for understanding how entrepreneurs leverage limited resources creatively. This could lead to an expanded theory of entrepreneurial resourcefulness that integrates concepts from creativity and innovation studies. This suggests that bricolage could be a critical tool in the toolkit of social entrepreneurs who often operate under resource constraints. The linking of bricolage with various disciplines and contexts (such as innovation management, organizational theory, and sustainability) underscores its relevance across a broad spectrum of research areas, suggesting a fertile ground for interdisciplinary research. Another noteworthy finding is the absence of Turkish publications in the WoS database. While this study did not include databases such as TR Dizin, the absence might suggest that the concept of bricolage is overlooked in Turkish management studies. If this is the case, exploratory initial attempts for future investigations could be recommended.

Managers could learn from the bricolage concept to develop resource management strategies in their organizations. Organizations can enhance their agility and resilience in dynamic environments by encouraging employees to be resourceful and innovative in utilizing existing resources (Gerçek, 2023). Also, managers could adopt bricolage as a strategic tool to foster a culture of innovation and improvisation, especially useful in startups and SMEs where resources are typically scarce. Organizations could explore strategic partnerships and collaborations with other firms or institutions to leverage complementary resources and capabilities. By adopting a bricolage mindset towards partnerships, organizations can maximize value creation and enhance their competitive advantage (Abid et al., 2023). On the other hand, HR experts can incorporate bricolage-related competencies into talent development programs. Training employees in skills such as improvisation, adaptability, and creative thinking can equip them with the capabilities needed to navigate resource-constrained environments and drive organizational success. Also, HR professionals can use bricolage as a framework for developing strategic HR practices that focus on flexibility, adaptability, and continuous learning (Turnbull, 2002). This is particularly relevant in dynamic industries where companies must rapidly adapt to changing conditions.

The study highlights the ongoing relevance and growing interest in bricolage within management studies. Given the interdisciplinary nature of bricolage, researchers can leverage insights from

various fields, such as entrepreneurship, innovation, and organizational behavior, to enrich their understanding of bricolage and its implications. The study identifies key journals and publications where bricolage research is prominent. Researchers could target these journals for publication to ensure their work reaches the relevant academic audience and contributes to ongoing scholarly discussions on bricolage.

This research has certain limitations. The study is limited by the scope of the literature reviewed. The WoS database was chosen for this study due to the inclusion of prestigious indices such as SSCI, SCI-E, and ESCI. The analysis primarily includes papers from specific journals or databases limited to the WoS database, leading to missing out on relevant research published elsewhere or in other languages. Future studies could include databases such as Scopus and EBSCO. Additionally, conference papers and book chapters, which are considered gray literature, were excluded from this study. Another limitation is the inclusion of articles in Turkish and English, the languages the authors are proficient in. Including studies in other languages in bibliometric analyses could expand the scope of the results. Thus, future studies could include a broader array of databases and journals and incorporate research published in multiple languages. Bibliometric analyses are inherently quantitative and may overlook the qualitative nuances that case studies or in-depth qualitative research could provide. Such analyses typically emphasize the volume of publications and citations but might not adequately assess the quality or the impact of the ideas presented. Furthermore, utilizing VOSviewer software and the corresponding analysis capabilities could also be considered a constraint. In future investigations, other analytic tools, such as BibExcel and SciMet, could be used. Acknowledging that bibliometric approaches should not be regarded as a substitute for thorough content analysis is important. Thus, future research could choose to adopt systematic review approach. The findings of the study limited by the temporal scope of the studied publications, encompassing studies conducted between 2003 and the time of data collection. While bricolage is a concept that could potentially be applied across various fields, the study might be limited if it only focuses on management studies without integrating insights from other disciplines like economics, sociology, or engineering. Also, exploring the role of digital technologies in facilitating bricolage could yield interesting findings on how technology can expand or limit the opportunities for creative resource recombination in various industries.

Despite its limitations, this study provides fundamental insights into the topics on which the concept of bricolage is examined in the field of management. Furthermore, a significant finding from this study is that the notion of bricolage extends beyond the borders of management and encompasses both engineering and management disciplines. Furthermore, given that the examination of the idea of bricolage includes entrepreneurship, society, innovation, and small and medium enterprises, it is believed that this study might provide guidance to management researchers interested in this field. The results of this study support the close relationship between bricolage, entrepreneurship, and innovation. Hence, the concept of bricolage is crucial, particularly for Turkish entrepreneurs facing resource constraints, small and medium-sized firm managers pursuing goals for growth, large enterprise managers, and HR experts seeking to enhance strategic agility. Moreover, the results of this study have the potential to offer researchers motivation for new topics of study by revealing the specific issues and journals in the field of management that are associated with bricolage. For

instance, the relationship between bricolage and innovation, agility, and organizational performance could be examined. Additionally, HR professionals have the potential to carry out research with the objective of finding bricolage behaviors among employees. In summary, the concept of bricolage could be applied widely within the field of management.

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Resume

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