

REVIEW

## Social Media as a Catalyst for Digital Entrepreneurship: A Scientometric Review and Visualization Using Citespace, VOSviewer and Biblioshiny

### Las redes sociales como catalizador del emprendimiento digital: una revisión y visualización cuantitativa utilizando Citespace, VOSviewer y Biblioshiny

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#### ABSTRACT

The intersection of social media and digital entrepreneurship has emerged as a significant area of academic inquiry, especially in the context of accelerated digital transformation. This study presents a comprehensive scientometric review of scholarly research exploring how social media platforms act as catalysts for digital entrepreneurial activity. Drawing on 282 peer-reviewed publications from the Scopus database spanning 2012 to 2025, the analysis employs three powerful bibliometric tools—Biblioshiny, VOSviewer, and CiteSpace—to uncover trends in authorship, thematic evolution, co-citation networks, and global research collaborations. The findings reveal a robust annual growth rate in publications (21,06 %), with key themes including digital marketing, innovation, platform-based business models, and influencer-driven entrepreneurship. Co-occurrence and thematic mapping indicate a shift from general discussions on digital platforms to more specialized concerns such as entrepreneurial passion, digital transformation, and AI integration. The analysis also identifies leading contributors, core publication sources, and country-level research output, highlighting strong participation from both developed and emerging economies. This review not only maps the intellectual structure of the field but also identifies critical research gaps and practical implications for policymakers, educators, and practitioners seeking to foster sustainable and inclusive digital entrepreneurial ecosystems.

**Keywords:** Digital Entrepreneurship; Social Media; Bibliometric Analysis; Biblioshiny; VOSviewer; Citespace.

#### RESUMEN

La intersección de las redes sociales y el emprendimiento digital se ha convertido en un área importante de investigación académica, especialmente en el contexto de la transformación digital acelerada. Este estudio presenta una revisión cuantitativa exhaustiva de la investigación académica que explora cómo las plataformas de redes sociales actúan como catalizadores de la actividad emprendedora digital. Basándose en 282 publicaciones revisadas por pares de la base de datos Scopus, que abarcan el período 2012-2025, el análisis emplea tres potentes herramientas bibliométricas (Biblioshiny, VOSviewer y CiteSpace) para descubrir tendencias en autoría, evolución temática, redes de cocitación y colaboraciones globales de investigación. Los hallazgos revelan una sólida tasa de crecimiento anual en publicaciones (21,06 %), con temas clave como el marketing digital, la innovación, los modelos de negocio basados en plataformas y el emprendimiento impulsado por influencers. La coocurrencia y el mapeo temático indican un cambio de los debates generales sobre plataformas digitales a preocupaciones más especializadas como la pasión emprendedora, la transformación digital y la integración de la IA. El análisis también identifica a los

principales contribuyentes, las principales fuentes de publicación y la producción de investigación a nivel nacional, destacando la sólida participación de las economías desarrolladas y emergentes. Esta revisión no solo describe la estructura intelectual del campo, sino que también identifica brechas críticas en la investigación e implicaciones prácticas para los responsables políticos, educadores y profesionales que buscan fomentar ecosistemas de emprendimiento digital sostenibles e inclusivos.

**Palabras clave:** Emprendimiento Digital; Redes Sociales; Análisis Bibliométrico; Biblioshiny; Vosviewer; Citespace.

## INTRODUCTION

Digital entrepreneurship has emerged as a critical component of the modern business landscape, driven by rapid advancements in digital technologies and the pervasive influence of social media.<sup>(1)</sup> This shift has radically changed how companies are built, run, and grown, offering historic possibilities for innovation, global access, and tailored customer engagement.<sup>(2)</sup> Social media, as a central facilitator of digital business, serves as a major catalyst in bringing companies closer to their target markets, promoting brand establishment, recruitment of customers, and community-building in ways hitherto impossible.<sup>(3)</sup>

The emergence of sites like Facebook, Instagram, Twitter, LinkedIn, as well as more recent entrants like TikTok and Threads, have transformed how entrepreneurs engage with their audience, building a dynamic, two-way exchange that encourages trust as well as loyalty.<sup>(4,5)</sup> The sites give entrepreneurs incredible resources to promote their goods and services, interact with clients, as well as review marketplace trends in real time.<sup>(6)</sup> Additionally, with the inclusion of sophisticated data analysis as well as AI-powered instruments, the potential of entrepreneurs to customize their marketing, personalize customer experiences, as well as forecast marketplace adjustments, that in turn increases business performance as well as competitiveness.<sup>(7)</sup>

Social media digital entrepreneurship involves more than online marketing. It involves a wide range of activities, from content creation to product development, e-commerce, to delivery of services through online platforms.<sup>(1)</sup> This multi-faceted approach allows entrepreneurs to cut through traditional market-entry barriers, keep overheads low, and scale up more quickly. Social media, therefore, has emerged as a potent incubator for new business models, spurring innovation and economic growth worldwide.<sup>(8)</sup>

In addition, social media's role in digital business goes beyond communications in that it involves strategic networking, partnerships with influencer personalities, as well as digital branding.<sup>(9)</sup> Entrepreneurs use these sites to develop personal and business stories that engage their target groups, develop online communities, as well as set themselves up as subject matter experts in their fields.<sup>(10)</sup> This networked environment has provided a rich opportunity for entrepreneurial development, giving a substantial competitive advantage to individuals who can successfully tap into its potential.

Growing dependence upon digital media and computerized advancements in social media technologies have changed established business practices, resulting in a rise in digital entrepreneurs.<sup>(11)</sup> The COVID-19 pandemic further hastened this transformation, compelling companies to go digital first in order to survive and grow in a competitive global arena.<sup>(12)</sup> This process has drawn considerable research attention, with academicians investigating the intersection of digital technologies, social media, and entrepreneurship to identify its far-reaching economic and social implications.<sup>(13)</sup>

This research focuses on conducting a complete bibliometric review of social media's function in digital entrepreneurship, capturing primary research trends, most influential papers, top authors, as well as new research clusters. It looks to chart social media's intellectual ecosystem in a field as quickly evolving as digital entrepreneurship, giving insights into key themes, research methods, as well as future research priorities.

Bibliometric research has emerged as a key means of grasping academic research structures and dynamics, offering a systematic method of examining a given field's volume, impact, and trends.<sup>(14,15,16)</sup> The current research employs bibliometric analysis to examine research growth and impact toward social media digital entrepreneurship, based on insights from a vast academic publication base to determine key trends as well as up-and-coming themes.<sup>(17,18,19)</sup>

The three high-impact bibliometric instruments to be used in the analysis include Biblioshiny, VOSviewer, and Citespace.<sup>(20)</sup> An R software, Biblioshiny, provides a holistic interface for performing bibliometric analysis, whereby various entities, including citation networks, co-authorship, and thematic growth, are visualized.<sup>(21,22)</sup> It presents a friendly interface from which intricate analysis, such as co-citation, bibliographic coupling, and keyword, can easily be carried out.<sup>(23,24,25)</sup>

VOSviewer, which was crafted by Leiden University's Centre for Science and Technology Studies, is renowned for its sophisticated network visualisation functions.<sup>(18,26,27)</sup> It facilitates comprehensive citation maps, author-co-authorship networks, as well as clusters of keyword co-occurrence, to gain in-depth insights into a field's

intellectual make-up.<sup>(28,29,30,31)</sup> Citespace operates in a different way, by highlighting forthcoming trends as well as pivotal turning points in scientific literature, making it an excellent instrument for determining research frontiers as well as paradigm-shifting thinking.<sup>(32,33,34)</sup> Both will collectively give a holistic perspective of the research scene in order to determine influential works, key scientists, as well as research themes in transition in social media digital entrepreneurship.<sup>(14,35)</sup>

The key aims of this bibliometric analysis are to examine social media digital entrepreneurship research in terms of its quantity and impact, determine dominant research topics, eminent papers, and top authors, visualize intellectual structure and developmental history of the research field, point out upcoming research trends, as well as make recommendations useful to researchers interested in harnessing social media as a tool for entrepreneurial development.

## METHOD

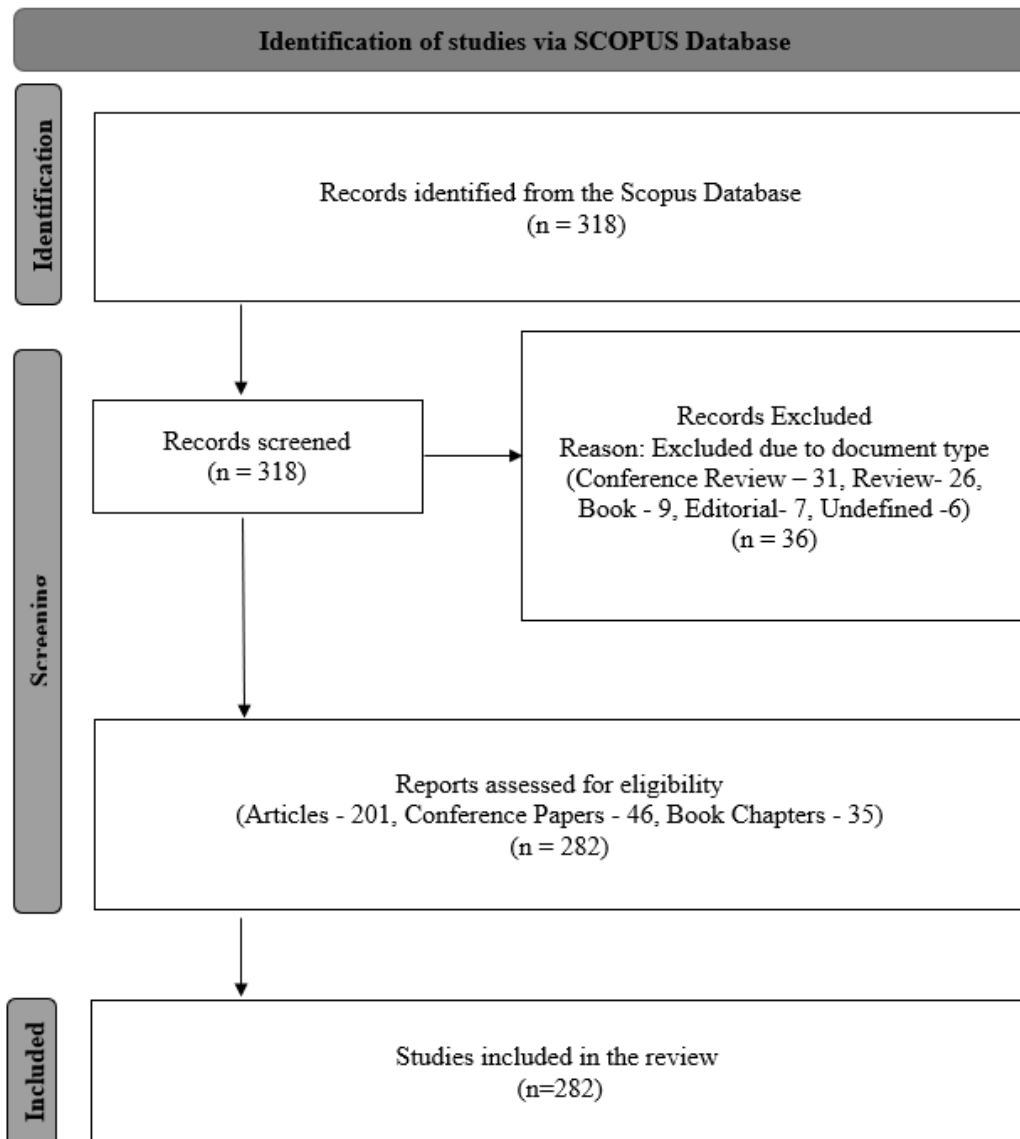


Figure 1. PRISMA flow diagram used to identify, screen, and include papers in the bibliometric analysis

The bibliometric data for this study were sourced from Scopus, a widely recognized database that offers a broad collection of peer-reviewed scientific literature, ensuring high-quality research inclusion. The search query was ( TITLE-ABS-KEY ( “digital” ) AND TITLE-ABS-KEY ( “entrepreneurship” ) AND TITLE-ABS-KEY ( “social media” ) ), ensuring a comprehensive retrieval of relevant publications. The search was not restricted by language, and the dataset included records from peer-reviewed journal articles, book chapters, and conference papers. To enhance the reliability of the dataset, a meticulous screening process was undertaken to remove duplicate entries and irrelevant document types, such as reviews, conference review, editorials, books and undefined. Figure 1 illustrates the PRISMA framework used for inclusion and exclusion. Out of 318 initial

records retrieved from Scopus, 36 records were excluded due to being categorized as conference reviews, reviews, books, notes, and editorials. The remaining 282 records (201 journal articles, 46 conference papers, and 35 book chapters) were assessed for eligibility and subsequently included in the bibliometric review. This systematic process ensures that only relevant and high-quality research studies contribute to the bibliometric analysis. The final dataset was saved in both CSV and RIS formats and analyzed using CiteSpace (version 6.2.R3 Advanced), VOSviewer, and Biblioshiny (Bibliometrix R package).

**RESULTS**

**Main information of the investigation**

Table 1 presents the main bibliometric information characterizing the research landscape on social media and digital entrepreneurship. Covering the period from 2012 to 2025, the dataset comprises 282 documents sourced from 204 publication venues, including journals, book chapters, and conference proceedings. The field demonstrates a strong annual growth rate of 21,06 %, indicating increasing academic interest. With an average document age of 3,13 years and 13,02 citations per document, the literature is both recent and moderately impactful. The total number of references cited is 15 983, highlighting the extensive scholarly foundation underpinning this domain. In terms of document types, journal articles dominate (201), followed by conference papers (46) and book chapters (35). The content richness is evident in the presence of 900 author-defined keywords and 644 Keywords Plus, reflecting the thematic diversity of the field. Authorship analysis reveals 703 contributing authors, with 54 single-authored publications and a total of 56 single-authored documents. The average number of co-authors per paper is 2,67, and international collaborations account for 23,05 % of the publications, suggesting a moderately collaborative and globally engaged research community. These indicators collectively reveal a vibrant, fast-growing, and increasingly interdisciplinary research area.

Table 1. Main information of the investigation	
Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	2012:2025
Sources (Journals, Books, etc)	204
Documents	282
Annual Growth Rate %	21,06
Document Average Age	3,13
Average citations per doc	13,02
References	15983
DOCUMENT CONTENTS	
Keywords Plus (ID)	644
Author's Keywords (DE)	900
AUTHORS	
Authors	703
Authors of single-authored docs	54
AUTHORS COLLABORATION	
Single-authored docs	56
Co-Authors per Doc	2,67
International co-authorships %	23,05
DOCUMENT TYPES	
article	201
book chapter	35
conference paper	46

**Annual Scientific Productions**

Figure 2 illustrates the annual scientific production in the field of social media and digital entrepreneurship from 2012 to 2025. The data reveals a clear upward trajectory in research output over the years, indicating growing scholarly interest. From 2012 to 2016, publication activity remained relatively low and stable, with fewer than 10 publications per year. A noticeable increase began in 2018, followed by a significant surge after

2020, likely catalyzed by the digital transformation prompted by the COVID-19 pandemic. The number of publications peaked in 2024, reaching over 70 articles, which marks the highest annual output in the dataset. However, there is a sharp decline in 2025, which may be attributed to incomplete data collection for the current year or publication lag. Overall, the trend reflects an accelerating research momentum, particularly in the post-pandemic digital era, highlighting the relevance and dynamism of the topic within the academic community.

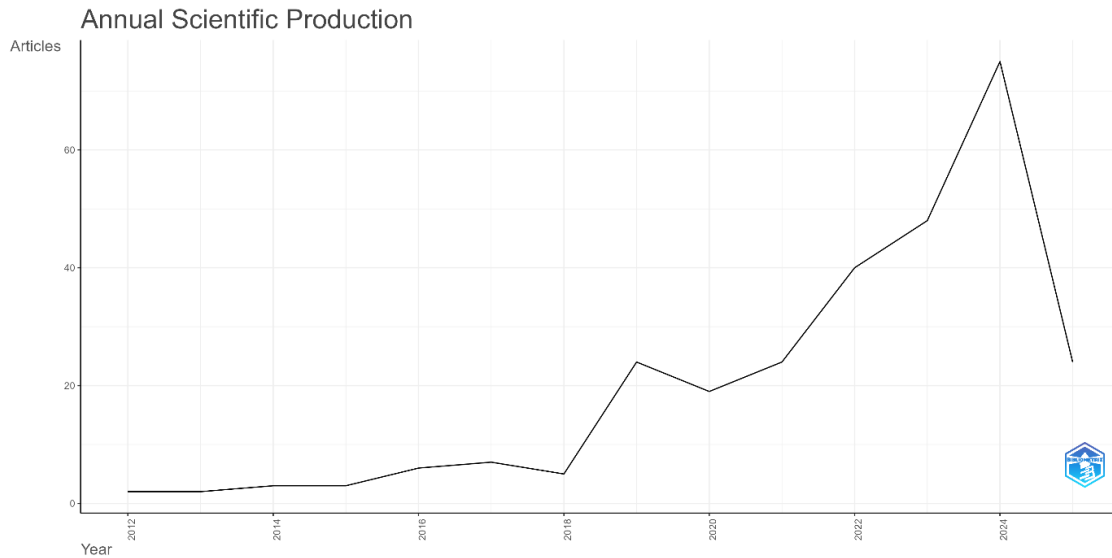


Figure 2. Annual Scientific Production

**Most Relevant Authors**

Figure 3 highlights the most prolific authors contributing to the research on social media and digital entrepreneurship. Leading the chart is Miniesy R, with 5 publications, indicating a strong and consistent engagement with the topic. A group of authors—including Al Halbusi H, Fakhreldin H, Hassan S, Marneross S, Papageorgiou G, and Secundo G—follow closely, each having contributed 3 publications, reflecting their sustained scholarly interest and potential influence within the research community. Several other authors such as Ababdi S, Alka Ta, and Amoras-Pons A have authored 2 articles each, suggesting emerging or collaborative involvement in this field. This distribution underscores a relatively balanced authorship landscape, with a few key contributors driving research momentum while also highlighting opportunities for broader engagement and diversification of scholarly voices in this evolving domain.

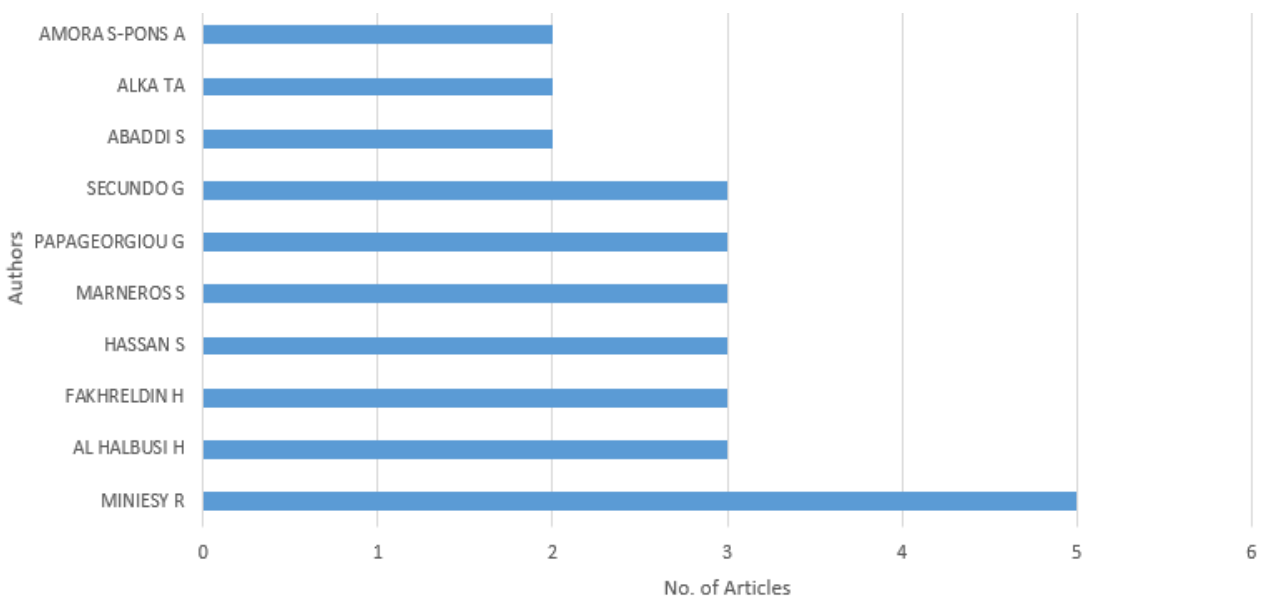


Figure 3. Most relevant authors



**Network visualization of co-citation of cited authors**

The co-citation of the cited author network in figure 4 reveals nine significant clusters of scholarly influence. Cluster #0, titled “e-entrepreneurial intention,” comprises 77 members and explores the role of social media and digital platforms in shaping entrepreneurial intentions. Theories like the theory of planned behaviour dominate this cluster, with highly cited works by hair jf (30 citations) and Fornell C<sup>(16)</sup>. The structure highlights the importance of digital self-efficacy and management support in fostering entrepreneurial mindset in the digital age.

Cluster #1, “examining identity centrality,” includes 71 members and focuses on identity construction, digital passion, and the socio-emotional dynamics of entrepreneurs on social media. Prominent contributors such as Autio E(19) and Davidsson P(14) reflect a narrative-driven approach to entrepreneurship. This cluster underscores how digital entrepreneurs frame their presence through storytelling, informal networking, and social validation.

Cluster #2, “emerging country,” with 50 members and the highest silhouette value (0,985), examines digital entrepreneurship within developing nations. It reflects regional challenges and innovation in underrepresented contexts. Ajzen I (16) known for his behavioral theory contributions, leads this cluster, revealing the theoretical foundation applied in varied geographic and cultural settings. Cluster #3, “using visual social media,” focuses on visual identity and branding via platforms like instagram. With 43 members, it includes influential authors like Duffy Be (24) and Abidin C (17) highlighting the entrepreneurial use of visual culture and aesthetics.

Cluster #4, “psychological technique,” comprising 41 members, explores motivational techniques and digital consumer psychology. Scholars such as Audretsch DB (11) contribute to understanding the psychological underpinnings of digital engagement. Clusters #5 (youth male entrepreneur) and #6 (embracing digital network), with 40 and 35 members respectively, showcase the socio-economic aspects of male youth entrepreneurship and the integration of social capital in digital networking. Kraus S (33) and Shane S (19) are key figures here, respectively. The final clusters—#8 “digital technologies” and #10 “qatari society”—focus on technological affordances and region-specific entrepreneurial patterns. Nambisan S dominates cluster #8, while authors like Ahmad SZ (3) lead cluster #10, reinforcing localized digital entrepreneurial dynamics.

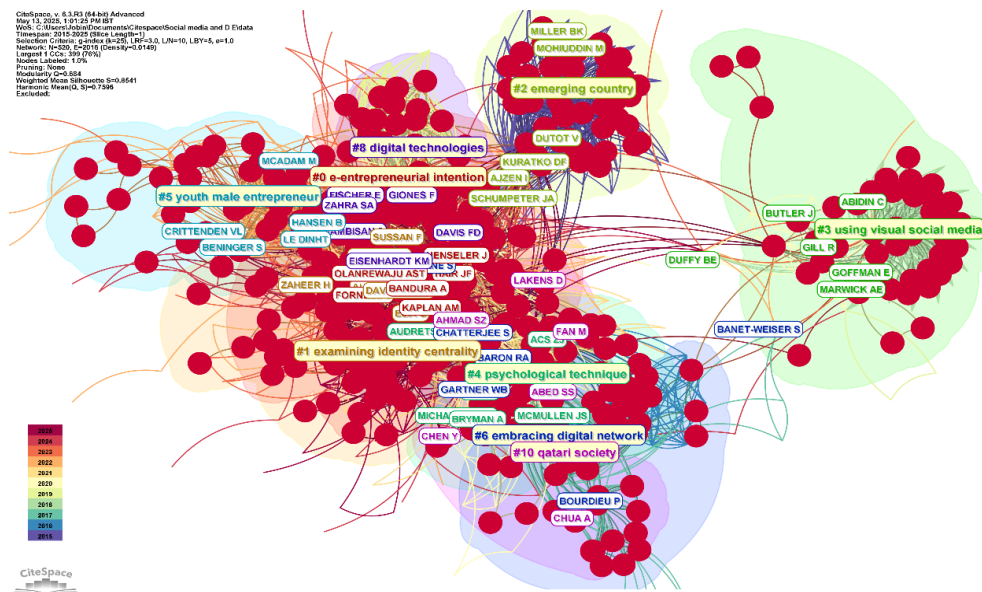


Figure 4. Network visualization of co-citation of cited authors

**Most Relevant Sources**

Table 2 presents the most relevant publication sources contributing to the field of social media and digital entrepreneurship. The International Journal of Entrepreneurial Behaviour and Research emerges as the leading source, with 11 articles, underscoring its central role in disseminating research at the intersection of entrepreneurship and behavioral studies. The Case Journal and Lecture Notes in Networks and Systems follow with 8 articles each, reflecting a strong interest in both practical, case-based insights and technology-driven approaches. Emerald Emerging Markets Case Studies (7 articles) and Sustainability (Switzerland) (6 articles) indicate a growing academic focus on context-specific entrepreneurial models and sustainability-linked digital initiatives. Conference proceedings also contribute significantly, with the European Conference on Innovation and Entrepreneurship (ECIE) accounting for 5 articles, emphasizing the relevance of academic conferences in shaping discourse in this emerging field. Journals like the International Journal of Emerging Markets, Journal of

Research in Marketing and Entrepreneurship, and Technological Forecasting and Social Change each contribute 4 articles, demonstrating interdisciplinary coverage that spans market development, strategic marketing, and future trends. Administrative Sciences, with 3 articles, rounds out the top ten, highlighting a broad spectrum of academic venues where research on digital entrepreneurship via social media is gaining visibility and impact.

Sources	Articles
International journal of entrepreneurial behaviour and research	11
Case journal	8
Lecture notes in networks and systems	8
Emerald emerging markets case studies	7
Sustainability (switzerland)	6
Proceedings of the european conference on innovation and entrepreneurship, ecie	5
International journal of emerging markets	4
Journal of research in marketing and entrepreneurship	4
Technological forecasting and social change	4
Administrative sciences	3

### Network visualization of Co-citation of Cited Journals

Figure 5 illustrates the network visualisation of co-citation of cited journals, which consists of nine significant clusters. Cluster #0, “Digital Technology Affordance,” is the largest, with 93 members and a silhouette value of 0,845. It is dominated by mainstream entrepreneurship and business journals, including the Journal of Business Research (80 citations), Entrepreneurship Theory and Practice (75), and Journal of Business Venturing (68). This cluster highlights the strong theoretical and empirical grounding in innovation, venture performance, and technology management that underpins digital entrepreneurship.

Cluster #1, titled “Social Media Influencer,” comprises 90 members with a silhouette value of 0,635. It explores the growing influence of social media personalities and their impact on digital marketing and entrepreneurship. Journals such as Sustainability (59 citations), Computers in Human Behavior (46), and Journal of the Academy of Marketing Science (28) are central here. The presence of psychology and marketing-focused publications indicates a multidisciplinary interest in how influencers drive consumer engagement and entrepreneurial outcomes.

Cluster #2, “Social Media Entrepreneurship,” includes 48 members with a silhouette value of 0,765. It covers studies that integrate social, gender, and cultural dimensions of entrepreneurship, with journals like Gender (22 citations), Social Media + Society (21), and Information (20) being most cited. Cluster #3, “Digital Right,” with 42 members and a silhouette value of 0,85, focuses on the rights and inclusion aspects of entrepreneurship. The most cited sources include International Journal of Entrepreneurship and Small Business (27) and year-based tags like 2020 and 2019, reflecting a focus on the temporal progression of digital equity research.

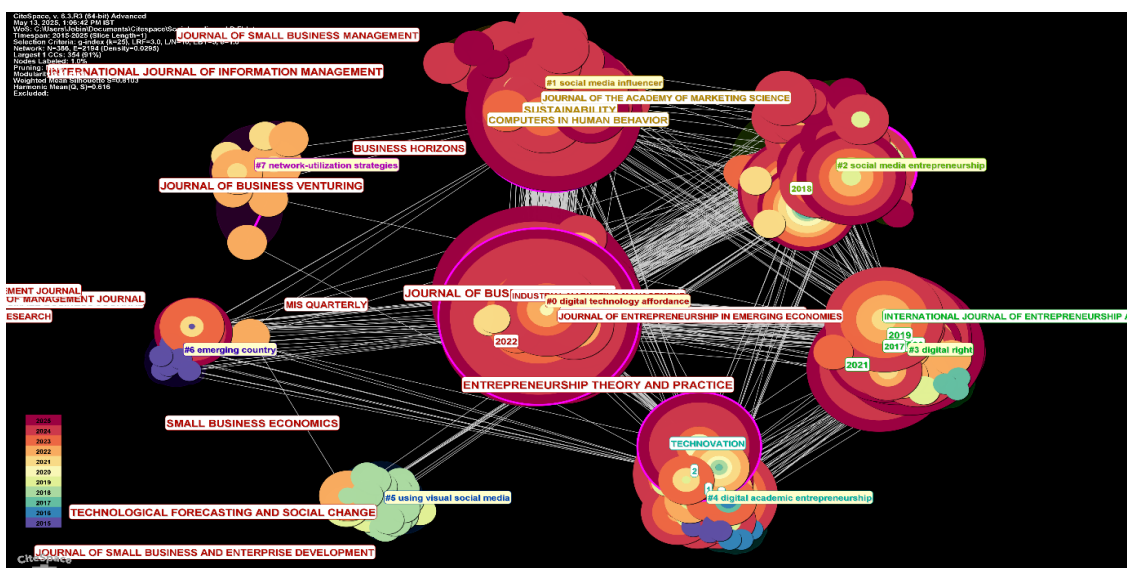


Figure 5. Network visualization of co-citation of cited journals

Cluster #4, “Digital Academic Entrepreneurship,” includes 37 members and is highly coherent with a silhouette value of 0,973. Journals like *Technovation* (28 citations) and *Journal of Business Venturing* again emerge prominently, showcasing the connection between educational institutions and digital start-ups. Cluster #5, “Using Visual Social Media,” though smaller with 23 members, has high cohesion (silhouette value = 1) and emphasizes cultural aesthetics and identity in digital entrepreneurship through journals such as *International Journal of Communication and Public Culture*.

The final clusters enrich the bibliometric network with specialized insights. Cluster #6, “Emerging Country,” with 10 members, features journals like *Annual Review of Sociology* (12 citations), emphasizing contextual entrepreneurship in developing regions. Cluster #7, “Network-Utilization Strategies,” includes 8 members and highlights strategic social networking through journals like *Computers in Human Behavior* and *Journal of Business Research*. Cluster #8, “Internet,” with 3 members and a silhouette of 0,996, underscores the foundational role of digital infrastructure in entrepreneurial engagement. Collectively, these clusters demonstrate the diverse and multidisciplinary nature of the research landscape in social media digital entrepreneurship.

**Countries Scientific Production**

Table 3 on countries’ scientific production in the field of social media digital entrepreneurship reveals that India leads with 41 publications, reflecting its growing emphasis on digital innovation and entrepreneurial research. The United States (34) and the United Kingdom (29) follow closely, maintaining their status as global research leaders with strong institutional and technological ecosystems. Indonesia’s notable output (20) signals rising academic engagement in Southeast Asia, while Spain (15), Australia (14), and Malaysia (13) highlight active scholarly contributions from both Western and Asia-Pacific regions. China and Italy, each with 11 documents, along with Germany (10), further demonstrate the field’s global reach, indicating increasing interdisciplinary and international collaboration in digital entrepreneurship research.

**Table 3. Countries Scientific Productions**

Countries	Documents
India	41
United States	34
United Kingdom	29
Indonesia	20
Spain	15
Australia	14
Malaysia	13
China	11
Italy	11
Germany	10

**Network Visualization of Countries Collaborations**

The timezone network visualization of country collaborations, represented in figure 6, reveals five key clusters that illustrate the global interconnectedness in research on social media digital entrepreneurship. Cluster #0, labeled “Psychological Technique,” is the largest with 13 countries and highlights strong collaborative ties between Indonesia (20), China (11), Malaysia (11), Egypt (9), and Pakistan (6). These countries focus on the psychological and behavioral aspects of digital entrepreneurship, especially in emerging and transitional economies. Their collective research explores how social media, entrepreneurial intuition, and digital education influence entrepreneurial intentions and behavior, demonstrating a regional synergy in addressing socio-psychological drivers of entrepreneurship.

Cluster #1, titled “Smart Technologies,” reflects advanced economies’ engagement with digital innovation, AI, and smart tech in entrepreneurship. The United States leads this cluster (32), followed by Australia (14), Spain (13), Portugal (6), and Greece (6). These nations form a tightly linked network focused on high-tech applications, digital infrastructure, and innovation-driven entrepreneurship. Meanwhile, Cluster #2, “Emerging Country,” led by India (40), shows collaboration between nations exploring the role of social media in entrepreneurial transformation post-COVID. Clusters #3 and #4, “Small Businesses” and “Creative Industries,” respectively, represent more localized or niche research efforts—highlighting contributions from the UK (27) in small business innovation, and Sweden (10) in immigrant and cultural entrepreneurship. Overall, the network underscores a geographically diverse yet thematically connected research landscape, with both emerging and developed countries contributing to knowledge co-production through strategic academic collaborations.



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 Timespan: 2015-2025 (Slice Length: 1)  
 Selection Criteria: g-index (k=25), LRF=3.0, UIN=10, LBY=6, e=1.0  
 Network: N=57, E=50 (Density=0.9407)  
 Largest CC: 47 (79%)  
 Nodes Labeled: 1.0%  
 Pruning: None  
 Modularity Q=0.5143  
 Weighted Mean Silhouette S=0.8714  
 Harmonic Mean(Q, S)=0.6959  
 Excluded:

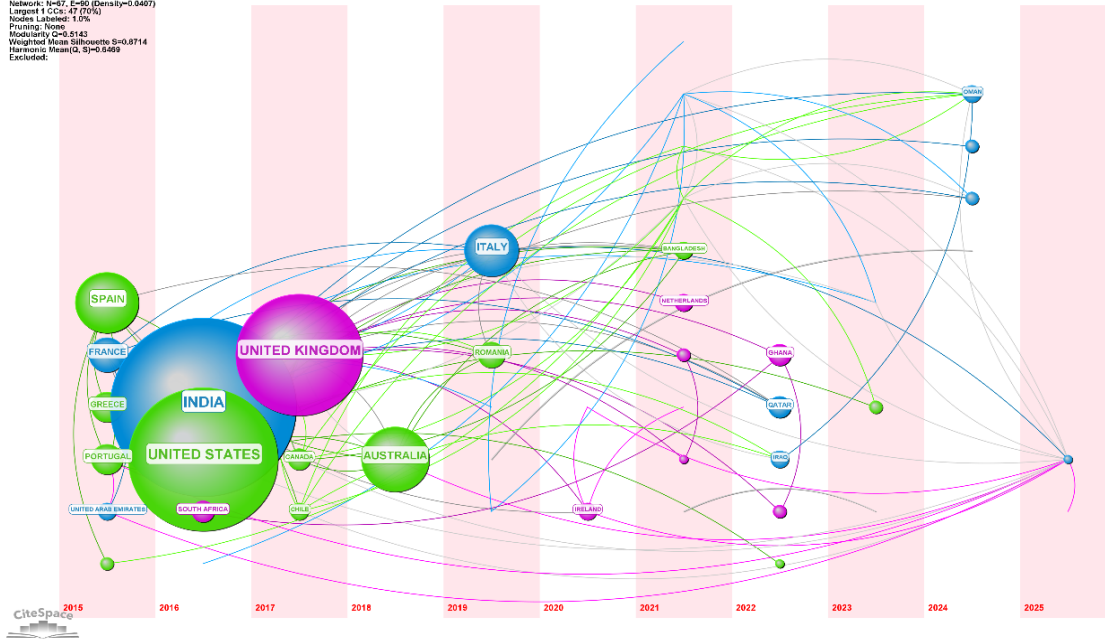


Figure 6. Timezone Network visualization of countries' collaborations

### Network Visualization of Bibliographic Coupling of Documents

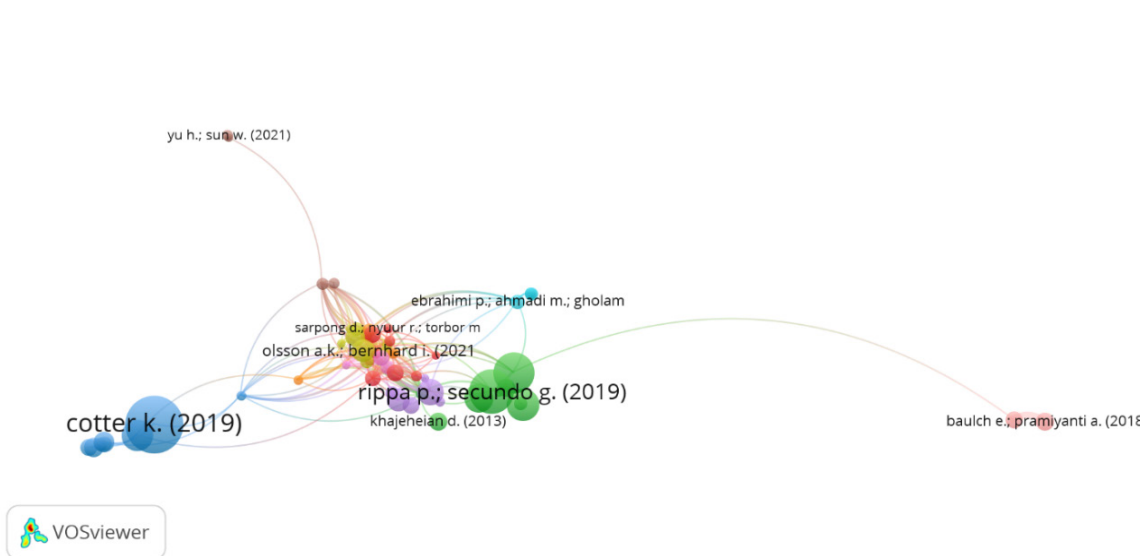


Figure 7. Network visualization of Bibliographic Coupling between Authors

Figure 7 presents bibliographic coupling network visualized by VOSviewer. Bibliographic coupling happens as two authors reference a common third. This indicates intellectual connections as well as a common base of knowledge. Here, in this visual, we find central nodes for a studies to have high bibliographic connectivity, which indicates their influential contributions and reference patterns to many other authors. The proximity to a studies points to a densely networked set of studies, which tend to reference similar base literature, perhaps in overlapping thematic areas such as digital entrepreneurship ecosystems or innovation in social media environments.

Smaller clusters—such as that including a study tend to be more isolated, indicating either niche research interests or bibliographic overlap limitations with core literature. The occurrence of otherwise isolated authors indicates a rise or autonomous research pathways. The variation in colors as well as cluster separations depicts thematic diversity among authors while highlighting key nodes that stabilize intellectual anchorage of a field. This network map generally assists in locating central authors as well as prospective collaboration or theme synergies across authors.

### Co-occurrence of all keywords

Figure 8 presents a visual depiction of author keyword co-occurrence, showing research interconnectedness as well as thematic composition. VOSviewer uses clusters of keywords grouped by their frequencies as well as patterns of their occurrence together, with node size used to represent term occurrence and node proximity to represent thematic proximity. The central cluster comprises the most frequent keywords “entrepreneurship”, “digital entrepreneurship”, and “social media”, all of which serve as a central nucleus from which other themes converge. These high-frequency terms represent core research themes as well as bridges connecting diverse subfields.

A number of clusters extend from this core. One cluster revolves around “digital marketing”, “marketing strategy”, and “social marketing”, reflecting a high priority on promotional practices in digital entrepreneurship. Another main cluster revolves around “digital transformation”, “digital technologies”, and “innovation”, emphasizing technological enablers of entrepreneurial transformation. Phrases such as “artificial intelligence”, “machine learning”, and “big data” reflect more inclusion of sophisticated technologies in the field, while “intersectionality”, “youth”, and “women” reflect a heightened interest in demographic as well as social aspects of entrepreneurship.

Platform-specific terms such as “Instagram”, “Facebook”, and “Twitter” appear alongside concepts like “influencer marketing” and “digital media”, indicating the continued relevance of social platforms as operational and strategic tools for entrepreneurs. Additionally, the spread of geographically tagged keywords like “China”, “Indonesia”, and “Iraq” signals a widening global scope and contextual diversity in the literature. Overall, the map underscores the multidimensionality of the research field, blending technology, strategy, society, and innovation to form a rich and interconnected scholarly ecosystem.

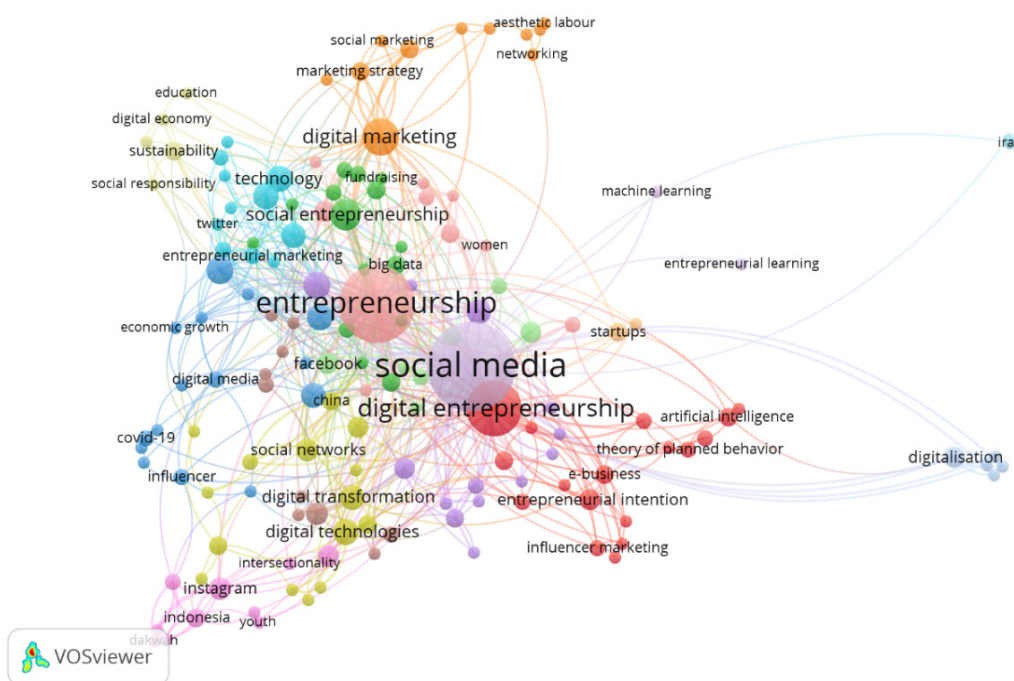


Figure 8. Co-occurrence of author keywords

### Trend Topics

Figure 9 provides a visual representation of the most frequently occurring and temporally evolving terms in the research landscape of social media and digital entrepreneurship. The term “social media” appears as the most prominent and consistent keyword, especially from 2021 onward, reflecting its centrality to this field of inquiry. Closely following are terms like “digital entrepreneurship”, “digital marketing”, and “entrepreneurship”, all gaining momentum around the same period, suggesting a convergence of interest in digital business models and marketing strategies post-COVID-19. Notably, “innovation” and “marketing” appear more recently and with significant frequency, indicating a shift toward strategic and forward-looking research themes. Keywords such as “e-commerce”, “social capital”, and “Instagram” also emerge, underscoring the diversification of platforms and theoretical lenses being applied. Additionally, terms like “digital technologies” and “digital technology” indicate a growing focus on technological enablers of entrepreneurship. The appearance of “social entrepreneurship” earlier in the timeline (around 2018-2020) hints at a foundational concern with socially

driven digital ventures. Overall, the visualization highlights how the field has evolved from broader conceptual themes to more platform-specific and innovation-driven discussions, marking the trajectory of scholarly focus and emerging research frontiers.

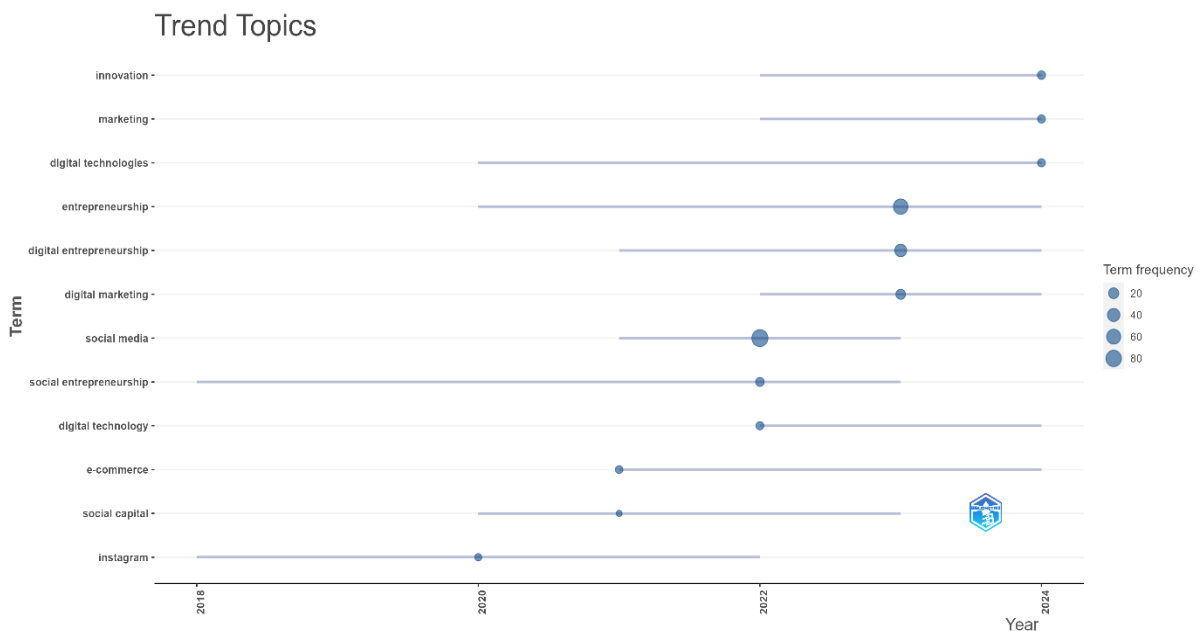


Figure 9. Visualization of trending topics in the realm of research

### Thematic Map

Figure 10 presents a thematic map of keywords in the domain of social media and digital entrepreneurship, categorized along two dimensions: centrality (relevance degree) and density (development degree). Positioned in the upper-right quadrant (motor themes) are well-developed and highly relevant themes such as entrepreneurship, digital marketing, and innovation, indicating their strong integration and influence in shaping the research field. These motor themes are pivotal to both theoretical development and practical application. Adjacent to these are other prominent themes like digital technologies, digital transformation, and social media, which, while slightly lower in density, also play a central role and serve as foundational pillars in the literature.

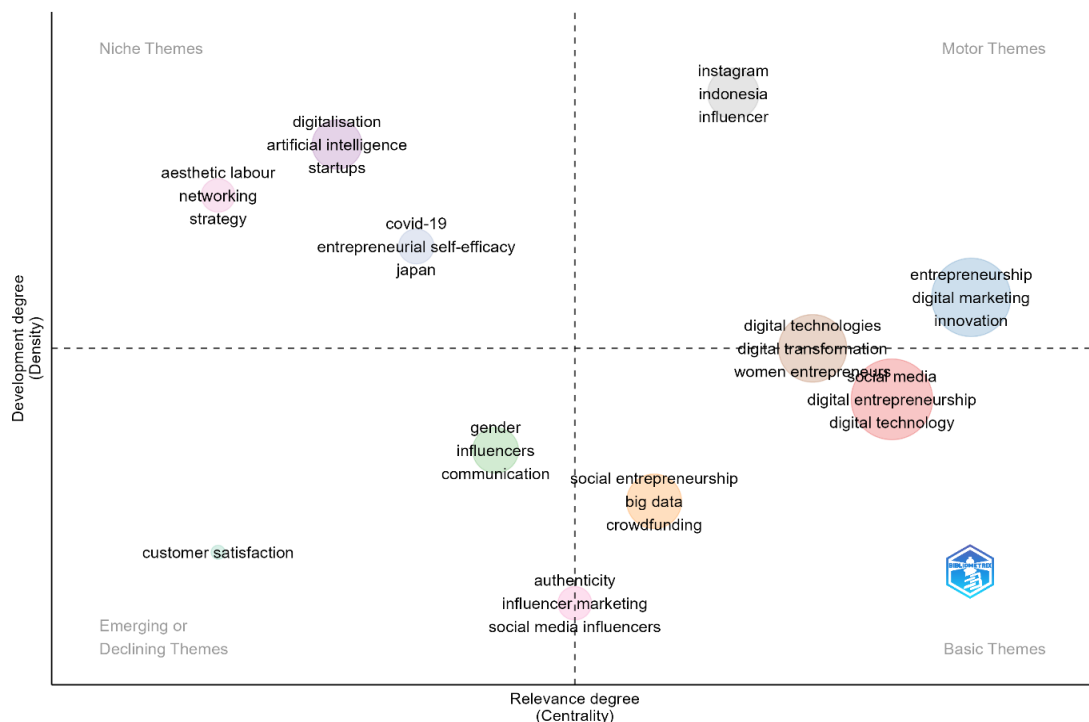


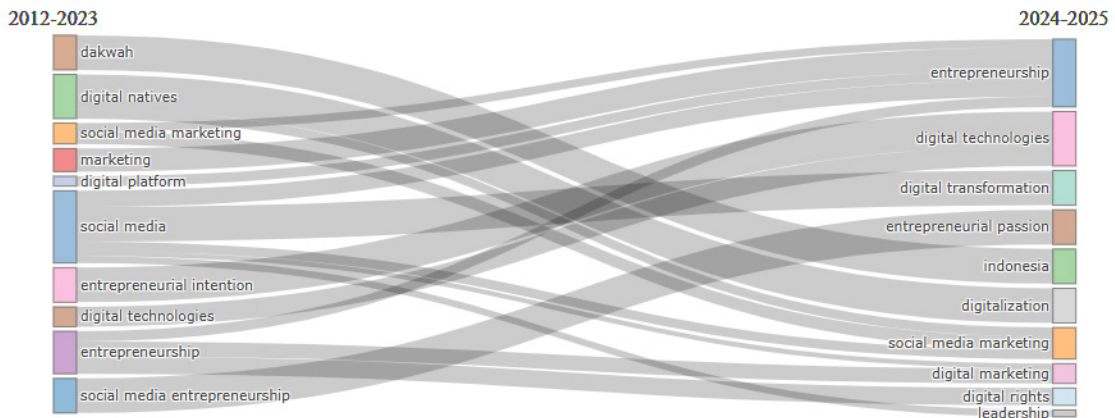
Figure 10. Thematic visualization of keywords

In contrast, the upper-left quadrant (niche themes) features specialized yet internally well-developed topics such as digitalisation, artificial intelligence, startups, and networking. Although these have lower centrality, they reflect emerging sophistication and depth in focused sub-areas. The lower-right quadrant (basic themes) includes concepts such as digital entrepreneurship, digital technology, and social media influencers, which are foundational to the field but are still evolving in terms of thematic complexity. Notably, terms like women entrepreneurship and digital transformation bridge the basic and motor themes, indicating their rising prominence.

The lower-left quadrant (emerging or declining themes) contains terms with low centrality and density, such as customer satisfaction, authenticity, and social media influencers, which may represent either nascent areas yet to be fully explored or fading topics losing relevance. Meanwhile, concepts like gender, communication, and influencers show moderate potential for development, suggesting possible areas for future interdisciplinary exploration. Overall, the map offers a comprehensive snapshot of the thematic structure and maturity of the field, highlighting both established core areas and fertile grounds for future research expansion.

**Thematic Evolution**

Figure 11 illustrates the thematic evolution of keywords in the field of social media and digital entrepreneurship between two time periods: 2012-2023 and 2024-2025. The Sankey diagram visually maps how early themes have developed or branched into newer research directions. During the earlier period, dominant themes included social media, entrepreneurship, digital technologies, and social media entrepreneurship, reflecting foundational interests in the digitalization of business practices. These themes have evolved into more nuanced and mature directions in recent years. For instance, social media and entrepreneurship have led to themes such as entrepreneurial passion, digital transformation, and leadership, suggesting a deepening interest in individual motivation, organizational change, and strategic capabilities in digital entrepreneurial settings.



**Figure 11.** Thematic evolution of keywords

Notably, social media marketing and digital marketing, which initially appeared as parallel themes, have gained specificity and relevance by 2024-2025, indicating increased scholarly focus on marketing strategy and digital consumer behavior. The emergence of themes like digital rights and Indonesia also signifies both the rise of normative concerns in digital entrepreneurship (e.g., ethics, access) and the inclusion of geographically contextual studies. Furthermore, earlier keywords such as digital platform, marketing, and entrepreneurial intention appear to have diffused into broader but more developed clusters like digital technologies and digitalization, showing thematic consolidation.

Overall, the figure highlights a progression from general and exploratory topics to more structured, interdisciplinary, and impact-oriented themes—demonstrating the maturation and diversification of research in this domain.

**DISCUSSION**

The findings of this scientometric review underscore the dynamic and rapidly evolving nature of research on social media and digital entrepreneurship. Over the span of more than a decade, the scholarly output has not only increased in volume but has also exhibited greater thematic depth, methodological sophistication, and geographical diversity. The annual scientific production revealed a notable surge after 2020, peaking in 2024, which strongly suggests that the COVID-19 pandemic served as a catalyst for both entrepreneurial activity and related academic inquiry. This post-pandemic shift towards digital-first strategies among businesses and startups is mirrored in the intensified academic engagement with topics such as digital transformation, digital



marketing, and the strategic use of social media platforms.

The main bibliometric indicators reflect a vibrant and moderately impactful research field. With an annual growth rate exceeding 21 %, the field demonstrates consistent academic interest. An average citation rate of 13,02 per document and a relatively young document age of 3,13 years indicate that much of the literature remains current and relevant to contemporary debates. The diversity of document types—spanning journal articles, conference papers, and book chapters—suggests that digital entrepreneurship through social media is being discussed across a wide range of academic formats, possibly owing to its practical relevance and multidisciplinary appeal.

The productivity analysis reveals a blend of established contributors with newer voices. Authors like Miniesy R., Al Halbusi H., and Secundo G. have emerged as key contributors to the field, with multiple publications each, influencing intellectual thinking. Concurrently, however, the field seems moderately open and receptive, with more than 700 authors represented in the corpus, with 23,05 % of international co-authorship. This suggests avenues for international collaboration as well as exchange of ideas, as digital entrepreneurship continues to globalize. The bibliographic coupling as well as co-citation analyses also shed light upon the underlying intellectual topography of the field. Pioneering works by authors serve as central hubs in the network of bibliographic couplings, suggesting their pioneering role in framing future research streams. Likewise, thematic clusters of co-citation like “E-Entrepreneurial Intention,” “Social Media Influencer,” as well as “Digital Technology Affordance” suggest both diversity as well as alignment of theoretical lenses used.

The range of dominant and up-and-coming journals confirms interdisciplinary coverage of the field. The presence of journals like the *International Journal of Entrepreneurial Behaviour and Research*, as well as the *Lecture Notes in Networks and Systems*, highlights a mix of behavioral science, business, and technology inquiry. The inclusion of conference proceedings of high caliber, like those of the European Conference on Innovation and Entrepreneurship, indicates that academic discussion is not only occurring through traditional publication vehicles but also through dynamic, contemporaneous sharing forums.

Country-wise production and cooperation patterns display key aspects of research activity’s worldwide dispersion. India’s top rank in terms of publication indicates the increasing emphasis in the country toward digital inclusion and entrepreneurship, facilitated by government-backed programs like Startup India and Digital India. The United States and United Kingdom remain major producers of knowledge, buoyed by strong academic environments, as well as access to high-quality digital infrastructures. The high presence of nations like Indonesia, Malaysia, and Egypt in cooperation clusters indicates that new economies are actively making a contribution toward world-wide research in social innovation, psychological entrepreneurship, and digital strategies localized.

Keyword co-occurrence underlines the multidimensionality of the research context. Central keywords like “entrepreneurship,” “digital entrepreneurship,” and “social media” are used as anchoring points, with clusters of words indicating thematic extension to terms such as “digital marketing,” “innovation,” “artificial intelligence,” and “influencer marketing.” This heterogeneity of themes highlights social media as a communications channel, but more importantly, as a strategic, working, and even ideologically contested space for entrepreneurial action. Thematic mapping reinforces the same reading. Within the motor themes category, centrality for terms like “entrepreneurship,” “digital marketing,” and “innovation” indicates that these themes not only hang together as a coherent set of ideas but also represent central, intellect-generative ideas in the field. Niche themes by contrast, namely “aesthetic labour,” “digitalisation,” and “artificial intelligence,” are close in but relatively peripheral, suggesting specialist research areas which, with more interdisciplinary activity, can expand to assume a more central place.

Thematic evolution analysis provides a compelling narrative of how the field has progressed over time. Previous themes of “digital platform,” “marketing,” and “entrepreneurial intention” have given way to more nuanced and specific themes of “entrepreneurial passion,” “leadership,” and “digital transformation.” This reflects a transition from exploratory to explanatory and predictive research agendas. The introduction of new terms like “digital rights” as well as regional indicators like “Indonesia” indicates an increasing breadth of research encompassing normative concerns and localized experiences. This trend indicates that the field is in transition toward a more sophisticated conceptualization of the socio-cultural, ethical, and institutional aspects of digital entrepreneurship.

The research also indicates a number of crucial gaps and avenues for future research. Even as digital entrepreneurship increasingly involves newer technologies like artificial intelligence and big data, these phrases currently rank low in terms of centrality or network density. This provides a window of opportunity for academics to intensify research in understanding the impact of these technologies on entrepreneurial choice, customer interactions, as well as market expandability. The same can also be said of themes like “authenticity,” “intersectionality,” and “youth,” which have emerged yet hang at the margins, indicating that identity-based as well as inclusive entrepreneurship still represent new areas in need of concerted research.

From a methodological perspective, a vast majority of studies use case-study or survey-based research,



with only a limited number of contributions drawing upon experimental, longitudinal, or mixed-method research. Methodological diversification from real-time social media analysis, machine learning-based content analysis, and simulation modeling can benefit future research to examine entrepreneurial behavior in digital environments. Conceptually, integration from psychology, sociological, and communications research can add depth to the field.

In practice, the conclusions of this review have implications for policymakers, teachers, and entrepreneurs. Policymakers can use the understanding of international cooperation networks to encourage international alliances and grant programs, especially in underdeveloped areas. Teachers can create curriculum units that introduce trendy subjects like online branding, platform economies, and entrepreneurial passion. Entrepreneurs can gain from identifying key themes and platforms, matching their business with established success factors pointed out by literature.

In summary, this review looks at the changing academic context of social media and digital entrepreneurship through a scientometric perspective. It presents a broad overview of publication trends, principal authors, thematic evolution, and collaboration networks, which can offer sound insights into what's happening in the field presently, as well as future directions. With digital technology and social media continuing to transform the entrepreneurial space, the academy stands in a position where it can both promote theoretical foundation as well as practical advice, making research in this field at once relevant as well as transformative.

### **Research Gaps and Practical Implications**

Despite an increasing number of studies on social media and digital entrepreneurship, a number of research gaps still exist that must still be explored. On a technological level, for instance, while technological facilitators like artificial intelligence, big data, and machine learning are constantly cited, their tangible functions and contributions to entrepreneurial action areas have yet to receive in-depth exploration. Likewise, digital rights, privacy, and ethics-related concerns have limited representation, yet have increasing importance in an increasingly entrepreneurial, data-dependent ecosystem. Demographic aspects like gender, youth engagement, as well as intersectionality, exist but have yet to feature as central to discussions, pointing towards more open, identity-sensitive research. Methodological contributions, meanwhile, represent a skew towards case studies, as well as survey-based research, leaving potential to diversify into longitudinal, experiment-based, or AI-backed analysis design. On a practical level, instead, findings point towards a necessity for entrepreneurs to develop platform-hinged strategies, make use of new technologies, as well as interact with digital populations in productive ways. Policy-makers, as well as teachers, can, in turn, use these as a basis to create more fit-for-purpose systems as well as curricula in support of digital entrepreneurial ecosystems, most significantly in developing economies where growth potential in terms of inclusivity can be great.

### **CONCLUSIONS**

In conclusion, this scientometric review offers a comprehensive overview of the academic landscape surrounding social media as a catalyst for digital entrepreneurship. Through an in-depth bibliometric analysis using Scopus data and advanced visualization tools such as Biblioshiny, VOSviewer, and CiteSpace, the study uncovers the thematic structure, intellectual evolution, and collaborative dynamics of the field. The findings demonstrate a rapidly expanding and interdisciplinary research domain, marked by increasing scholarly interest, diverse methodological approaches, and a broadening global footprint. Key themes such as digital marketing, innovation, and platform-based entrepreneurship have emerged as central to the discourse, while newer areas like artificial intelligence integration, digital ethics, and inclusive entrepreneurship signal promising directions for future inquiry. This review not only maps the existing intellectual terrain but also identifies critical research gaps and practical implications for entrepreneurs, educators, and policymakers. As the digital landscape continues to evolve, sustained academic engagement and collaborative efforts will be essential to harness the transformative potential of social media in driving entrepreneurial innovation and socio-economic development.

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