

PSYCHOLOGICAL CAPITAL AND SOCIAL ENTREPRENEURSHIP: A BIBLIOMETRIC ANALYSIS OF THE INTELLECTUAL STRUCTURE AND RESEARCH TRENDS

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Abstract

This study explores the intersection of Psychological Capital (PsyCap) and Social Entrepreneurship (SE) through a comprehensive bibliometric analysis. Social entrepreneurship, a field dedicated to creating social value, requires immense personal fortitude, making the psychological resources of entrepreneurs a critical area of investigation. This paper maps the intellectual structure of the research nexus between PsyCap and SE to understand its evolution, key thematic areas, and future directions. The primary dataset for this study was retrieved from the Scopus database, which was selected for its recognized credibility and extensive coverage. The preliminary data base query retrieved 1477 publication. These records are systematically screened and filtered in accordance with predefined inclusion and exclusion criteria to ensure thematic alignment. Bibliometric analysis was performed using VOS viewer to visualize co-citation structures, keyword co-occurrence pattern, and collaborative linkages among authors, countries and institution. The findings indicate an expanding stream of scholarship examining constructs such as entrepreneurial resilience, self-efficacy, optimism. The study further reflects on the theoretical contributions and practical relevance of the results, acknowledges existing research constraints, and outlines directions for future investigations into the role of psychological capital in shaping and sustaining social entrepreneurial initiatives. To explore the intellectual landscape of PsyCap and Social entrepreneurship scholarship, bibliometric mapping was conducted using VOS viewer, enabling visualization of co-citation linkages, thematic keyword clusters, and patterns of scholarly collaboration. Findings reveal four thematic clusters: (1) entrepreneurial resilience, (2) self-efficacy and entrepreneurial intention, (3) sustainable development and innovation, and (4) psychological resources in social impact. Influential works include Ajzen's (1991) Theory of Planned Behavior, which underpins entrepreneurial intention studies, and recent research on resilience as a driver of venture survival during crises (Duchek, 2018; Hartmann et al., 2020). The analysis reveals that research in this domain is largely centered in developed economies, particularly the United States, China, and the United Kingdom, leaving gaps in developing-country contexts where Social Entrepreneurship is often most crucial. The study contributes by clarifying the intellectual landscape, identifying knowledge gaps, and proposing directions for future research, including longitudinal studies on PsyCap development, cross-cultural perspectives, and interventions to enhance entrepreneurial well-being. By integrating psychological and social innovation literatures, this work underscores the need to cultivate PsyCap as a resource for advancing sustainable and inclusive entrepreneurship.

Keywords : Psychological Capital, Social Entrepreneurship, Bibliometric Analysis, Resilience, Self-Efficacy, Social Innovation

1. INTRODUCTION

Social entrepreneurship (SE) has gained momentum over the past two decades as an innovative response to persistent social, economic, and environmental challenges (Mair & Marti, 2006). Unlike traditional ventures that prioritize profit maximization, SE organizations pursue a dual mission of social impact and financial sustainability (Dacin, Dacin, & Tracey, 2011). Operating in resource-scarce and uncertain environments, social entrepreneurs must mobilize not only financial and social resources but also psychological strengths to navigate adversity and sustain their mission. Psychological Capital (PsyCap) is defined as a higher-order construct comprising four positive psychological resources: self-efficacy, optimism, hope, and resilience (Luthans et al., 2007). Research has shown that PsyCap enhances individual performance, motivation, and well-being across organizational contexts (Newman et al., 2014). In the entrepreneurial domain, PsyCap supports persistence in uncertain conditions, promotes opportunity recognition, and buffers against failure (Hmieleski & Carr, 2008). However, while entrepreneurship research has embraced PsyCap, its application within SE remains underdeveloped, despite the sector's heightened psychological demands.

This study therefore seeks to answer: (1) How has PsyCap-SE research evolved over time? (2) What are the dominant themes and clusters in this domain? (3) Who are the leading scholars, journals, and institutions shaping this discourse? By providing a structured overview, this research contributes to both theory and practice, guiding future scholarship and informing policies that support the psychological empowerment of social entrepreneurs. Social entrepreneurship (SE) has emerged as a powerful force for addressing complex societal challenges, aiming to generate social benefits for its recipients rather than focusing solely on profit. These ventures often operate in resource-constrained environments, tackling systemic issues that have been neglected by both the public and private sectors. The demanding nature of this work requires entrepreneurs to possess not only business acumen but also significant psychological fortitude to persevere through adversity.

This form of psychological strength can be understood through the lens of Psychological Capital (PsyCap), a higher-order construct encompassing four positive psychological capacities: self-efficacy, optimism, hope, and resilience. Although PsyCap has been widely examined within conventional entrepreneurial settings, its application to social entrepreneurship remains comparatively underexplored. Unlike traditional entrepreneurs, social entrepreneurs operate under the dual imperative of generating meaningful social impact while ensuring financial viability. This combined objective introduces distinct pressures and complexities, making psychological resources particularly significant in sustaining their efforts. Despite the expanding scholarly attention devoted to both social entrepreneurship and PsyCap, limited research has systematically examined how these two domains intersect. A comprehensive understanding of the field's development, dominant themes, and influential contributors is essential to uncover existing research gaps and shape a more coherent future research agenda. Accordingly, this study seeks to address this gap by providing a structured assessment of the intellectual landscape at the convergence of PsyCap and social entrepreneurship. In this investigation, we conduct a bibliometric analysis to address the following questions:

1. How has the research output on Psychological Capital and Social Entrepreneurship evolved over time?
2. What are the contemporary research topics and thematic clusters at the intersection of these fields?
3. Who are the most influential authors, and what are the key collaborative relationships among researchers and institutions in this domain?

By answering these questions, this paper aims to provide a comprehensive overview of the field, offering valuable insights for academics, practitioners, and policymakers dedicated to fostering sustainable and impactful social ventures.

2. LITERATURE REVIEW

Social Entrepreneurship: A Commitment to Social Value

Social entrepreneurship is broadly defined by its aim to create, and sustain social value. Unlike traditional entrepreneurship, where wealth creation is the primary metric of success, social entrepreneurship prioritizes the mitigation of social problems. Social entrepreneurs are seen as changemakers who identify opportunities within societal challenges—such as poverty, environmental degradation, and inequality—and develop innovative, market-based solutions to address them. This approach aligns closely with the United Nations Sustainable Development Goals (SDGs), as social ventures often directly contribute to outcomes like poverty reduction, gender equality, and sustainable community development. The pursuit of this dual mission—balancing social purpose with economic viability—places unique demands on the individuals who lead these hybrid organizations.

Psychological Capital: The Resources Within

The challenges inherent in any entrepreneurial journey, particularly a social one, highlight the importance of an individual's internal psychological resources. Psychological Capital (PsyCap) is conceptualized as a higher-order positive psychological resource that enhances an individual's capacity to cope with uncertainty, sustain motivation, and pursue goal attainment under challenging conditions. Rather than functioning as isolated traits, its four dimensions operate synergistically to shape adaptive behavior in complex environments.

Self-Efficacy reflects confidence in their ability to execute specific tasks and succeed in challenging situations. For entrepreneurs, this translates to the confidence needed to launch and manage a venture.

Hope extends beyond simple thinking wishfully, it represents a dynamic motivational process grounded in goal-directed energy and the identification of alternative pathways when obstacles arise. The planning of pathways to meet those goals. It is a crucial driver for persevering in the face of obstacles.

Resilience: The capacity to bounce back from adversity, conflict, or failure and emerge stronger. Given the high failure rates and turbulent environments associated with new ventures, resilience is a vital entrepreneurial trait.

Optimism: A generalized positive outlook and the tendency to make positive attributions about present and future events. Optimism can fuel motivation and persistence, especially during the uncertain early stages of a venture.

These four components collectively form a synergistic resource pool that has been shown to positively impact performance, job satisfaction, and overall well-being in various organizational contexts.

The Nexus: Why Psychological Capital is Crucial for Social Entrepreneurs

The intersection of PsyCap and SE is a particularly vital area of study. Social entrepreneurs often face greater challenges than their commercial counterparts, including navigating complex social problems, securing funding for ventures with non-traditional returns, and managing the inherent tension between social and financial goals.

PsyCap provides the psychological bedrock necessary to manage these unique stressors.

In mission-driven ventures, psychological capital serves as an internal foundation that supports sustained engagement under conditions of uncertainty and constraint. Social entrepreneurs frequently operate in environments marked by limited financial resources, institutional voids, and complex stakeholder expectations.

- ❖ Self-efficacy reinforces their belief in their capacity to initiate and scale social interventions, even when structural barriers are significant. This belief often determines whether innovative ideas move from conception to implementation.
- ❖ Hope sustains long-term commitment to social objectives by encouraging strategic pathway development when progress appears slow or unpredictable. In impact-oriented ventures, where measurable change may take years, such motivational endurance is particularly valuable.
- ❖ Resilience enables adaptation in response to failure, funding instability, or shifting policy contexts. Rather than perceiving setbacks as terminal, resilient entrepreneurs reinterpret them as learning opportunities.
- ❖ Optimism contributes to maintaining a constructive and forward-looking vision, which not only sustains personal motivation but also inspires confidence among beneficiaries, investors, and collaborators.

Collectively, these dimensions highlight why psychological capital may be especially salient in the social entrepreneurship domain.

3. METHODOLOGY

("Psychological capital" OR "PsyCap" AND "social entrepreneurship") AND PUBYEAR > 2007 AND PUBYEAR < 2026 AND PUBYEAR > 2013 AND PUBYEAR < 2026 AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (SUBJAREA , "BUSI") OR LIMIT-TO (SUBJAREA , "PSYC") OR LIMIT-TO (SUBJAREA , "SOCT")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (EXACTKEYWORD , "Social Entrepreneurship") OR LIMIT-TO (EXACTKEYWORD , "Psychological Capital") OR LIMIT-TO (EXACTKEYWORD , "Resilience") OR LIMIT-TO (EXACTKEYWORD , "Self-efficacy") OR LIMIT-TO (EXACTKEYWORD , "Entrepreneurial Resilience") OR LIMIT-TO (EXACTKEYWORD , "Sustainable Entrepreneurship") OR LIMIT-TO (EXACTKEYWORD , "Sustainable Development") OR LIMIT-TO (EXACTKEYWORD , "Social Entrepreneurial Intention") OR LIMIT-TO (EXACTKEYWORD , "Social Impact") OR LIMIT-TO (EXACTKEYWORD , "Entrepreneurial Mindset") OR LIMIT-TO (EXACTKEYWORD , "Economic And Social Effects") OR LIMIT-TO (EXACTKEYWORD , "Social Support") OR LIMIT-TO (EXACTKEYWORD , "Social Enterprise") OR LIMIT-TO (EXACTKEYWORD , "Economic Development") OR LIMIT-TO (EXACTKEYWORD , "Psychological Empowerment") OR LIMIT-TO (EXACTKEYWORD , "Start-ups") OR LIMIT-TO (EXACTKEYWORD , "Value Creation") OR LIMIT-TO (EXACTKEYWORD , "Social Innovation") OR LIMIT-TO (EXACTKEYWORD , "Kickstarter") OR LIMIT-TO (EXACTKEYWORD , "Entrepreneurial Education") OR LIMIT-TO (EXACTKEYWORD , "Entrepreneurial Self-efficacy") OR LIMIT-TO (EXACTKEYWORD , "Social Entrepreneur") OR LIMIT-TO (EXACTKEYWORD , "Sustainable Development Goal") OR LIMIT-TO (EXACTKEYWORD , "Social Entrepreneurial Intentions") OR LIMIT-TO (EXACTKEYWORD , "Optimism") OR LIMIT-TO (EXACTKEYWORD , "Environmental Economics") OR LIMIT-TO (EXACTKEYWORD , "Mindfulness") OR LIMIT-TO (EXACTKEYWORD , "Sustainable Development Goals") OR LIMIT-TO (EXACTKEYWORD , "Hope") OR LIMIT-TO (EXACTKEYWORD , "Developing Countries") OR LIMIT-TO (EXACTKEYWORD , "Developing World") OR LIMIT-TO (EXACTKEYWORD , "Environmental Entrepreneurship") OR LIMIT-TO (EXACTKEYWORD , "Purpose"))

Research protocol	Detail description
Research database	Scopus
Publication type	Only peer-reviewed journals
Document type	Article and review
Language	Only paper published in English
Date range	The data range was 10 years (2015 to September 2025)
Search field	Title, abstract, and keywords.
Search terms	"Psychological capital" OR "Psycap" OR "positive Psychological capital" AND "Social entrepreneurship" OR "social business" OR "social enterprise"
Inclusion criteria	Papers related to both psychological capital and social entrepreneurship
Exclusion criteria	Papers that do not related with the study psychological capital and social entrepreneurship
Data extraction	Compiled and exported in CSV format for excel
Data analysis and synthesis	Compatible with VOS viewer software, tool designed for visualization, network clustering,

4. DATA COLLECTION

The primary source of this study Scopus database, the selection of data base was based on its credibility and comprehensive nature make it an ideal repository for bibliometric exploration.

In an initial phase, the Boolean search termed (type of search that allow combining keywords with operators-or modifiers – such as AND, NOT and OR) the search strategy involved the formulation of specific search keywords derived from scholarly articles related to psychological capital and social entrepreneurship. The finalized keywords or search queries included term as “psychological capital” OR “Psycap” OR “positive Psychological capital” AND “Social entrepreneurship” OR “social business” OR “social enterprise”. This search included all the 1477 documents found initially for which search term appeared in the title, abstract or keywords of the Scopus record.

5. DATA EXTRACTION

During the extraction phase inclusion and exclusion criteria establish to refine the dataset and ensure the relevance of the retrieved documents. The search parameters were restricted to the subject area to the business management category, limit were imposed on the source and type of document, as well as the language of publication (only English). There was no restriction regarding the geographical region, to identify the highest number of publications through countries wise. Documents were included if they directly addressed the concept of PsyCap or social entrepreneurship, or their related construct, such as self-efficacy, resilience, optimism, social impact, sustainable development and sustainable entrepreneurship. Articles were excluded if they did not relate to PsyCap and SE or related construct other than PsyCap and social entrepreneurship.

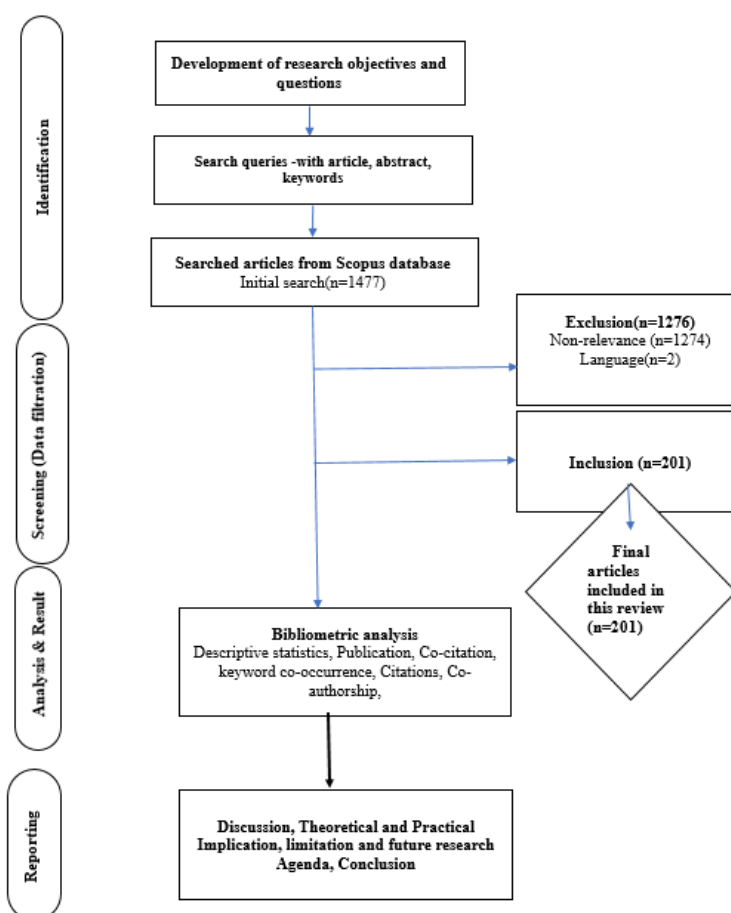


Figure 1. Flow diagram of article selection and study methodology. Source: adapted from the PRISMA flow Diagram

6. FINDINGS

Evolution of research output on psychological capital and social entrepreneurship:Contemporary research topics

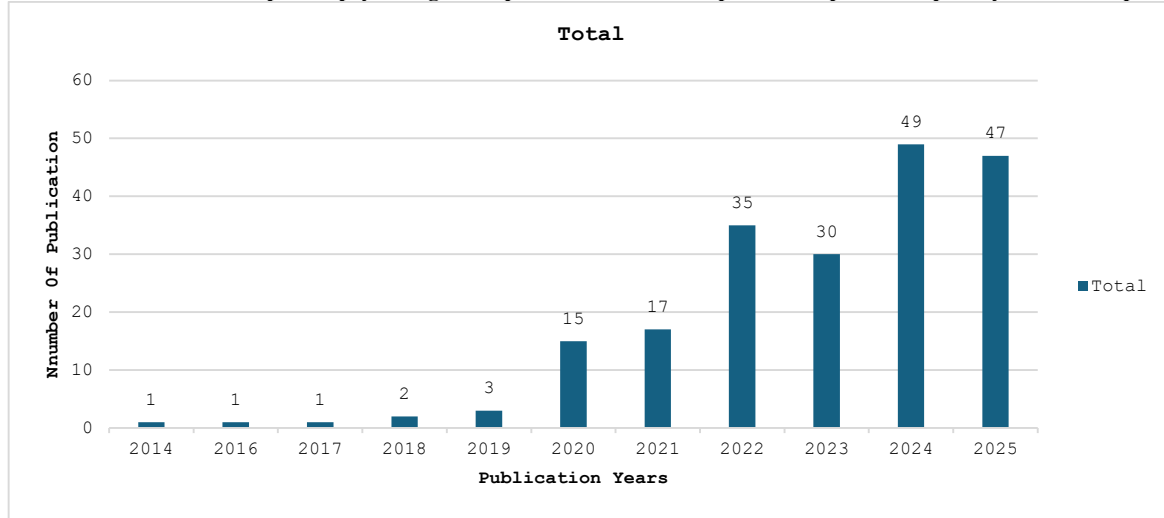


Figure 2: Distribution of Publications

The temporal distribution of publications indicates a clear acceleration in scholarly interest over the past decade. Between 2014 and 2018, research output remained relatively modest, with only sporadic contributions each year. However, from 2020 onward, a marked increase is observable, suggesting a shift from an emerging topic to a rapidly expanding research domain. The sharp growth after 2021, culminating in peak publication levels in 2024 and 2025, reflects heightened academic engagement with the psychological dimensions of entrepreneurship, particularly in response to global uncertainty and sustainability challenges. This upward trajectory signals that the intersection of Psychological Capital and Social Entrepreneurship is transitioning toward a more established and dynamic field of inquiry. Recent scholarship increasingly focuses on resilience, entrepreneurial intention, sustainability, digital adaptation, and crisis management. The prominence of resilience-related themes, especially after 2020, suggests that global disruptions such as the COVID-19 pandemic intensified interest in understanding how psychological resources enable entrepreneurs to navigate uncertainty. Together, these contemporary themes illustrate a shift from purely intention-based models toward a broader understanding of psychological strengths as drivers of sustainable and socially impactful entrepreneurial activity.

Analysis of Co-citation patterns among field of publication

1. Co-citation of cited References

Co-citation analysis is a technique for science mapping that assume publication that are cited together frequently are similar thematically (Hjorland 2013). Vos viewer software is used for Custer analysis. Figure 3 indicates the co-citation analysis conducted on the cited references within the literature on PsyCap and SE revealed 16 references that met threshold of at least 6 citation each. Among these, Ajzen ,icek () emerged as most cited reference with 51 citation and a total link strength of 48, indicating its significant influence within the field. Other notable references include ayala et.al (),austin(), bacq

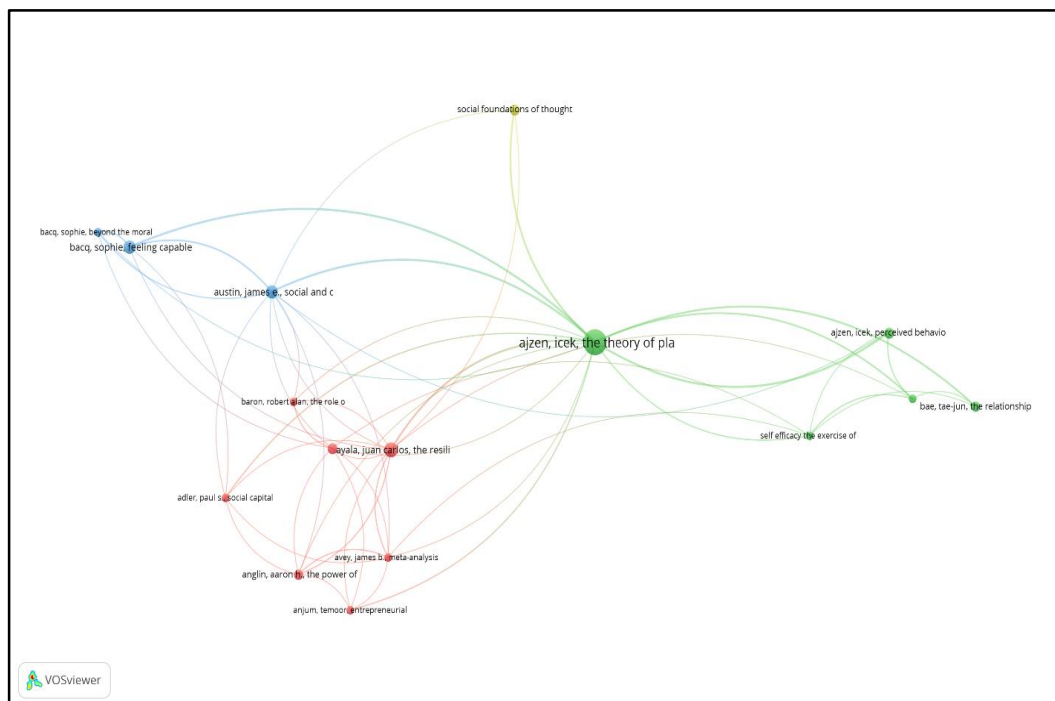


Figure.3 Network of cited references

2. Clustering of cited References

These references are grouped into four cluster based on their co-citation patterns, highlighting different thematic grouping or shared research interest within the literature as seen in figure 3 and Table below 1 cluster analysis carried out valuable insight into the connection among the cited references and their thematic grouping, it focuses on the evolution and research direction in the field of PsyCap and social entrepreneurship.

CLUSTER OF CITED AUTHORS

Table 1. Cluster (Cited author)

S.NO	Cluster	Source
1	Red	Adler Paul, Anglin Aaron., Anjum Temoor, Avey James, Ayala James Carlos,Robert Alan, Robert Alan
2	Green	Ajzen, Ajzen, Ajzen, Bae tae-jun, self-efficacy
3	Blue	Austin James, Bacq Sophie, Bacq sophie
4	Yellow	Social foundation of thoughts

The co-citation analysis identifies a group of foundational scholars whose work forms the intellectual backbone of PsyCap and Social Entrepreneurship research. Among the most strongly connected authors are **Zoltan J. Acs** and **David B. Audretsch**, whose high total link strength indicates substantial influence within entrepreneurship and innovation scholarship. Similarly, **James B. Avey** and **Fred Luthans** (implicitly connected through PsyCap literature) represent the psychological foundations of the field. Authors such as **Aaron H. Anglin**, **Allison E. McKenny**, and **Thomas H. Allison** further demonstrate the integration of psychological and entrepreneurial perspectives. Overall, the co-citation structure suggests that the field is anchored in a combination of entrepreneurship theory and positive organizational psychology, reflecting its interdisciplinary intellectual roots.

Co -citations of cited sources

In terms of the co-citation analysis as shown in the table2, it revealed 10 sources that met the threshold of minimum 6 citation each within the literature on PsyCap and SE.

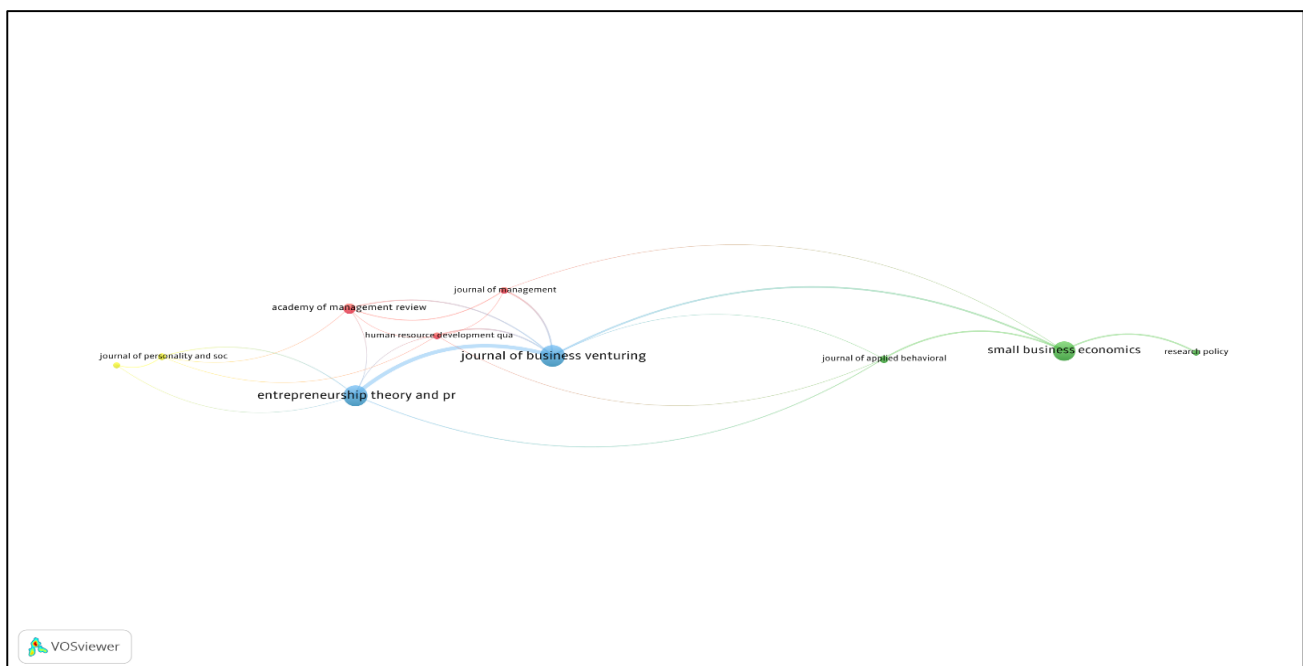
Table.2 Co-citation of sources

Rank	Sources	Citation	Total Strength Link
1	Journal of Business Venturing	30	43
2	Entrepreneurship Theory and Practice	29	31
3	Small Business Economics	26	17
4	Human Resource Development Quarterly	7	9
5	Journal of Applied Behavioral Science	8	9
6	Journal of Management	7	9
7	Academy of Management Review	12	8
8	Journal of personality and social psychology	7	6
9	Research Policy	6	5
10	Journal of the academy of marketing science	6	3

Clustering of cited sources

Cluster were formed based on the co-citation pattern among the identified sources, revealing distinct grouping of related research within the literature on PsyCap and SE figure 4. Cluster 1(red) includes *Academy of Management Review*, *Human Resource Development Quarterly* and *Journal of Management*. In terms of their thematic content or shared research interest these sources are interconnected within the field. Cluster 2 (green) includes *Journal of Applied Behavioral Science*, *Research Policy* and *Small Business Economics*. Cluster 3 (blue) comprise *Entrepreneurship Theory and Practice* and *Journal of Business Venturing*. Cluster 4 (yellow) includes *Journal of personality and social psychology* and *Journal of the academy of marketing science*.

Figure.4 Cluster of cited Sources



Co-citation of Authors

The co-citation analysis conducted with a focus on cited authors identified 15 authors who met the threshold of a minimum of 10 citation each as shown in Table 3.

Table 3. Ranking of Author based on publication, citation and total link in PsyCap and SE research.

S.NO	Author	Citations	Total link strength
1	Acs	18	58
2	Zoltan j	18	58
3	James b.	19	36
4	Aaron h.	12	54
5	Allison	12	50
6	Anglin	12	54
7	Audretsch	16	40
8	Avey	18	36
9	David b.	16	40
10	Thomas h.	12	50

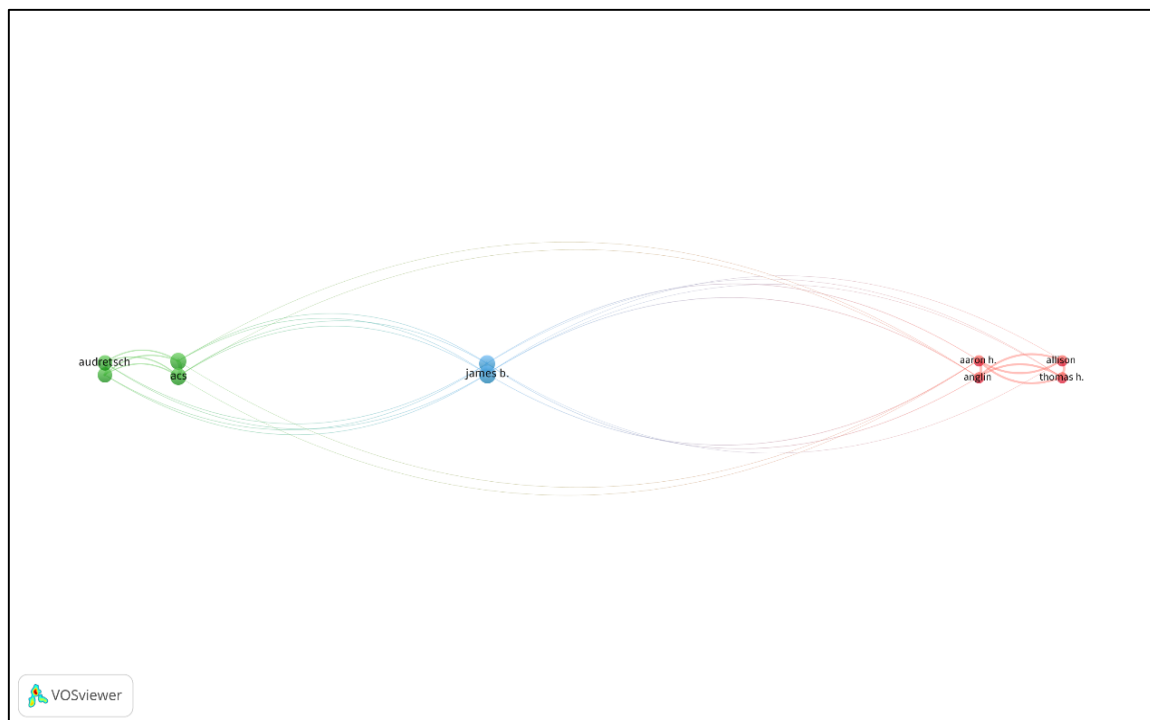


Figure.5 Clustering of Co-cited Author

Keyword Co-occurrence Networks

Table 4. Thematic cluster of keywords and their significance

S.No	Thematic Cluster	Keywords
1	10 items	economic development, entrepreneur, gender, higher education, social enterprise, social innovation, sustainability, sustainable development goal, sustainable entrepreneurship, entrepreneurial intention, entrepreneurial intentions, entrepreneurial mindset, entrepreneurial passion, entrepreneurial self-efficacy, entrepreneurial education.
2	9 items	mindfulness, self-efficacy social support
3	5 items	covid-19, entrepreneurial education, entrepreneurial resilience, entrepreneurship, resilience.
4	5 items	Human capital, psychological capital, social capital, entrepreneurial intention, social entrepreneurship.

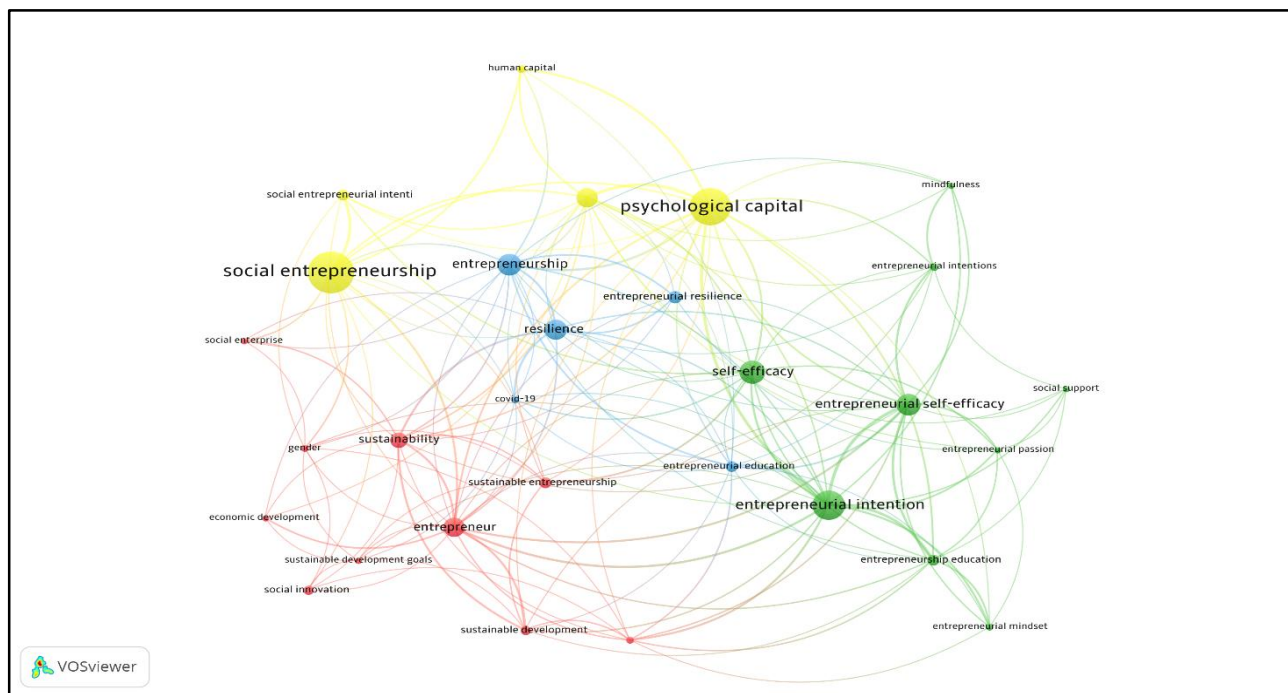


Figure 6: Thematic Cluster

Keyword Co-Occurrence and Thematic Clusters

The keyword co-occurrence analysis reveals the conceptual structure of research linking Psychological Capital and Social Entrepreneurship. The network visualization generated through VOS viewer shows several interconnected clusters, indicating that the field is composed of multiple but related research streams. The largest nodes in the network are centered around **psychological capital**, **social entrepreneurship**, **self-efficacy**, and **entrepreneurial intention**, suggesting that these themes form the intellectual core of the literature. Their strong linkages with surrounding keywords indicate that many studies examine psychological capabilities as drivers of entrepreneurial motivation and socially oriented venture creation.

Cluster 1

Sustainability and Social Impact Orientation

The first thematic cluster focuses on sustainability and broader societal development. Keywords such as economic development, social innovation, sustainability, sustainable development goals, and social enterprise highlight the strong connection between social entrepreneurship research and global development discourse. This cluster suggests that scholars frequently position social ventures as mechanisms for addressing societal challenges and contributing to sustainable development. The presence of gender and higher education also indicates growing attention to inclusivity and the role of educational institutions in fostering socially oriented entrepreneurial activity.

Cluster 2

Psychological Drivers of Entrepreneurial Intention

The second cluster centers on the psychological foundations of entrepreneurial behavior. Terms such as entrepreneurial intention, self-efficacy, entrepreneurial passion, and entrepreneurial mindset reflect a research stream grounded in psychological and behavioral theories. The presence of mindfulness and social support suggests increasing interest in emotional and cognitive factors that shape entrepreneurial motivation. Overall, this cluster highlights how internal psychological resources influence individuals' decisions to pursue entrepreneurial activities.

Cluster 3

Resilience and Crisis-Related Research

The third cluster is characterized by themes related to resilience and crisis contexts. Keywords including resilience, entrepreneurial resilience, and COVID-19 indicate that scholars have increasingly examined how entrepreneurs cope with uncertainty and disruption. This line of research gained particular momentum during the global pandemic, when resilience became a central concept in understanding how ventures adapt to unexpected shocks.

Cluster 4

Capital-Based Theoretical Foundations

The fourth cluster reflects the theoretical foundations of the field. Keywords such as human capital, psychological capital, and social capital demonstrate the integration of multiple forms of capital in explaining entrepreneurial outcomes. The inclusion of social entrepreneurship and entrepreneurial intention within this cluster suggests that researchers frequently connect these theoretical perspectives to understand how individuals mobilize resources to create social value.

Overall Interpretation of the Map

Taken together, the clusters indicate that research on Psychological Capital and Social Entrepreneurship is structured around three broad dimensions:

1. **Social impact and sustainability goals**
2. **Psychological and motivational drivers of entrepreneurship**
3. **Adaptive capacity and resilience in uncertain environments**

The network also shows strong interconnections among these themes, suggesting that scholars increasingly view psychological resources as central to addressing complex social and economic challenges through entrepreneurship.

Intellectual Structure of the Field: The keyword network indicates that research at the intersection of Psychological Capital and Social Entrepreneurship is evolving around a set of interconnected conceptual foundations. At the center of the map are themes related to psychological

resources—particularly psychological capital, self-efficacy, and resilience—which appear closely linked to entrepreneurial intention and social entrepreneurship. This pattern suggests that scholars largely interpret social venture creation through a psychological lens, emphasizing how individual capabilities influence the pursuit of social impact. At the same time, the presence of sustainability, social innovation, and economic development reflects the broader societal orientation of the field. The network therefore illustrates a convergence between psychological theory and sustainability-oriented entrepreneurship research. While earlier studies appear to focus primarily on entrepreneurial intention, newer themes such as resilience, mindfulness, and crisis-related adaptation indicate a gradual shift toward understanding how entrepreneurs navigate complex and uncertain environments. Overall, the structure of the map suggests that the field is moving toward a more integrated perspective in which psychological strengths are viewed as essential drivers of sustainable and socially impactful entrepreneurial activity.

Citation Analysis of PsyCap and social entrepreneurship

Citation of Documents

The bibliographic coupling analysis was conducted on a set of 201 documents related to PsyCap and social entrepreneurship research, only those with a minimum of 80 citation were included 9 documents meet the threshold.

Table 5. Citation Documentation

S.No	Rank	Documents	Citation	Title
1	1	Branicki et al.	237	How entrepreneurial resilience generates resilient smes
2	2	Duchek Stephanie	163	Entrepreneurial resilience: a biographical analysis of successful Entrepreneurs
3	3	Hartmann Silja et al.	149	Psychological resilience of entrepreneurs: a review and agenda for future research
4	4	Cui Jun and Bell Robin	149	Behavioral entrepreneurial mindset: how entrepreneurial educatio activity impacts entrepreneurial intention and behavior
5	5	Ahmad Ali et al.	118	Integrating Psychological resilience, stress and coping in entrepreneurship: a critical review and research agenda
6	6	Santos et al.	86	How digitalization reinvented entrepreneurial resilience during COVID-19
7	7	Engel Yuval et al.	83	Self Compassion when coping with venture obstacles: loving – kindness Meditation and entrepreneurial fear of failure

The citation analysis of key documents in PsyCap and Social Entrepreneurship research indicates that a limited number of highly cited studies have significantly shaped the intellectual direction of the field. Among the most influential contributions is the work of **Layla Jayne Branicki**, whose study on entrepreneurial resilience in SMEs has received the highest citation count, reflecting strong scholarly engagement. Foundational contributions by **Stephanie Duchek** and **Silja Hartmann** further highlight the centrality of resilience within entrepreneurial research. Studies by **Cui Jun** and **Robin Bell** emphasize the role of entrepreneurial mindset and education, while work by **Ali E. Ahmed**, **Susana Correia Santos**, and **Yuval Engel** reflects growing interest in psychological resilience, coping mechanisms, and digital adaptation during crises. Overall, the pattern suggests that resilience, mindset development, and psychological coping processes form the dominant themes driving high-impact scholarship in this research domain.

MOST INFLUENTIAL AUTHOR

Table 6. Citation Count of Influential Author

S.No	Author	Document	Citations
1	Layla Jayne Branicki	1	237
2	Tuatul Mahfud	1	195
3	Walter Leal Filho	1	169
4	Stephanie Duchek	1	163
5	Silja Hartmann	1	149
6	Cui Jun	1	149
7	Bell Robin	1	149
8	Ali E. Ahmed	1	118
9	Susana Correia Santos	1	86
10	Yuval Engel	1	83
11	Maija Renko	1	79

The citation analysis of influential authors indicates that a small number of scholars have made particularly high-impact contributions to the PsyCap–SE literature. Among them, **Layla Jayne Branicki** stands out with the highest citation count, suggesting that her work has significantly shaped academic discussions in this domain. Other notable contributors include **Tuatul Mahfud**, **Walter Leal Filho**, and **Stephanie Duchek**, whose publications have also attracted substantial scholarly attention. The presence of authors such as **Silja Hartmann**, **Cui Jun**, and **Yuval Engel** further reflects the interdisciplinary character of the field. Overall, the pattern suggests that although the domain is expanding, its intellectual influence is currently driven by a relatively concentrated group of highly cited researchers whose individual contributions have shaped key theoretical and empirical directions.

Citation of cited sources in Psycap and Social Entrepreneurship Research

Based on the analysis of citation on sources with a minimum of one document and 130 citation, ten sources met the threshold

Table 7: Citation sources

S.No	SOURCE	DOCUMENTS	CITATIONS
1	Sustainability (Switzerland)	17	434
2	Frontiers In Psychology	17	311
3	International Journal of Entrepreneurial Behavior and Research	3	286
4	International Entrepreneurship and Management Journal	7	250
5	Journal Of Small Business Management	5	221
6	International Journal of Management Education	6	159
7	Technological Forecasting and Social Change	4	155
8	Journal Of Business Research	3	143
9	Journal Of Social Entrepreneurship	10	61
10	Journal Of Enterprising Communities	3	51

The citation analysis of sources within Psychological Capital and Social Entrepreneurship research highlights a concentration of influence in a relatively small group of high-impact journals. Among the sources meeting the established threshold, **Sustainability** and **Frontiers in Psychology** emerge as the most prominent in terms of both publication volume and citation impact, indicating strong interdisciplinary engagement between sustainability studies and psychological research. Journals such as the **International Journal of Entrepreneurial Behavior & Research**, the **International Entrepreneurship and Management Journal**, and the **Journal of Small Business Management** demonstrate that mainstream entrepreneurship outlets also play a significant role in shaping this field. Meanwhile, contributions from the **Journal of Business Research** and **Technological Forecasting and Social Change** suggest integration with broader management and innovation scholarship. Although more specialized outlets such as the **Journal of Social Entrepreneurship** and the **Journal of Enterprising Communities** publish relevant work, their comparatively lower citation counts indicate that high-impact discourse is currently driven by multidisciplinary and established management journals. Overall, the citation pattern reflects the cross-disciplinary nature of PsyCap–SE research and its gradual consolidation within influential academic platforms.

Collaboration patters and key collaborative relationship among researcher

Co-Authorship of countries

The bibliometric data that provided for the Co-authorship patterns among in the research of PsyCap and SE as 14 countries met the established thresholds highest numbers.

Table 8: Co-Authorship of countries

Rank	Country	Documents	Citations	Total Link Strength
1	United States	32	934	14
2	China	24	628	11
3	United Kingdom	15	516	7
4	Germany	13	649	5
5	Malaysia	14	118	5
6	Australia	7	488	4
7	France	8	67	4
8	Pakistan	7	139	4
9	Saudi Arabia	7	53	3
10	Spain	8	101	3
11	Vietnam	8	33	3
12	India	22	59	2
13	South Africa	8	42	2
14	Indonesia	15	15	1

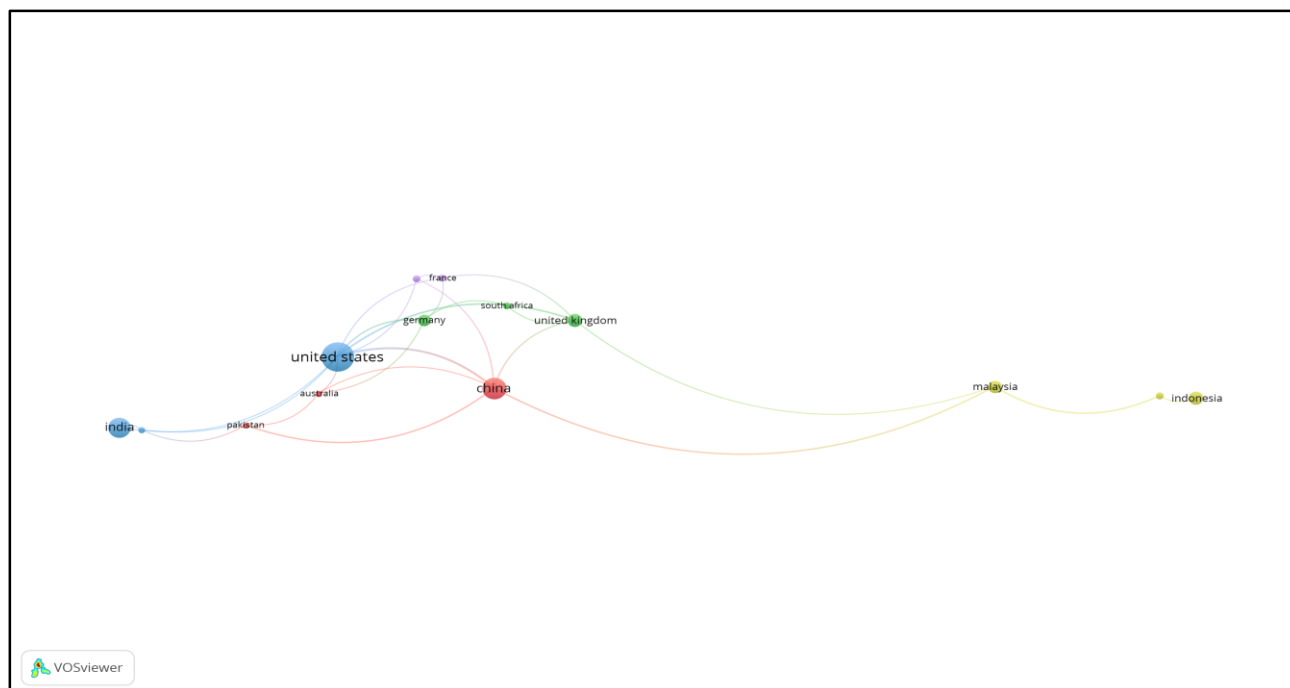


Figure: 7 Co- Authorship of countries

- Cluster 1 comprising Australia, China and Pakistan
- Cluster 2 consisting of Germany, South Africa and United Kingdom
- Cluster 3 consist of India, Saudi Arabia and United States
- Cluster 4 Indonesia, Malaysia, and Vietnam
- Cluster 5 France and Spain

Co-Authorship of Countries

The country-level co-authorship analysis reveals how international collaboration shapes research on Psychological Capital and Social Entrepreneurship. A total of fourteen countries met the threshold established for the study, indicating that contributions to this research area are distributed across several regions but remain unevenly concentrated.

The **United States** leads the dataset with the highest number of publications and citations, suggesting a strong research presence and influence in this field. High citation counts indicate that studies originating from the United States are widely referenced and play an important role in shaping the academic conversation. Similarly, **China** shows substantial research productivity and impact, reflecting the country's expanding engagement in entrepreneurship and management research.

The **United Kingdom** and **Germany** also demonstrate significant scholarly contributions. Their citation levels suggest that European research institutions are actively participating in the development of this topic. Countries such as **Australia**, **Malaysia**, and **France** show moderate involvement, indicating a growing but comparatively smaller research footprint.

Emerging contributions can also be observed from **Pakistan**, **Saudi Arabia**, **Spain**, **Vietnam**, **India**, **South Africa**, and **Indonesia**. Although several of these countries produce a noticeable number of publications, their citation levels and link strengths suggest that their influence and integration within global collaboration networks remain relatively limited.

Overall, the distribution indicates that research activity is still largely driven by a few leading countries, while broader international collaboration continues to develop.

Cluster Interpretation

The clustering pattern produced by the network visualization highlights regional and collaborative partnerships among countries.

Cluster 1 includes Australia, China, and Pakistan, suggesting a collaborative link that may be influenced by shared research interests in entrepreneurship and development-related studies.

Cluster 2 consists of Germany, South Africa, and the United Kingdom. This grouping reflects strong academic ties between European and African research institutions, possibly supported by international research programs and joint projects.

Cluster 3 brings together India, Saudi Arabia, and the United States. The presence of the United States in this cluster indicates its central role in facilitating international collaboration across regions.

Cluster 4 comprises Indonesia, Malaysia, and Vietnam, indicating a regional collaboration pattern within Southeast Asia where research networks often develop through shared institutional and policy contexts.

Cluster 5 includes France and Spain, representing a smaller European collaboration cluster.

Taken together, these clusters illustrate that international research on PsyCap and Social Entrepreneurship is gradually becoming interconnected, although collaborations are still somewhat regionally concentrated.

Co- Authorship of Authors

The bibliometric analysis of co- Authorship of Authors the most influential author within the datasets showcasing, two documents of each author with minimum 73 citation were selected, 6 authors met the threshold. The co-authorship analysis shows a small group of researchers who appear most prominently within the dataset. The threshold applied in the study authors with at least two publications and a minimum of 73 citations—six scholars met the criteria. Among them, **Mochamad Bruri Triyono** emerges as the most influential contributor, with three documents accumulating 217 citations and a total link strength of 3. This suggests that his work not only receives substantial academic attention but is also connected to collaborative research networks within the field.

Table 9: Co-authorship of Authors

Rank	Author	Documents	Citations	Total Link Strength
1	Triyono, Mochamad Bruri	3	217	3
2	Sudira, Putu	2	200	3
3	Mahfud, Tuatul	2	198	2
4	Hörisch, Jacob	2	78	2
5	Tenner, Isabell	2	78	2
6	Haddoud, Mohamed Yacine	2	79	0

The co-authorship network generated through VOS viewer provides insight into the collaborative structure of research within the Psychological Capital–Social Entrepreneurship domain. The visualization shows that scholarly contributions are organized around a limited number of interconnected authors rather than a highly dense global collaboration network. This observation suggest that the research areas is still evolving, with studies largely produced by a small numbers of inter-connected researchers.

Authors with higher link strength values appear more integrated into collaborative clusters, indicating active participation in joint research efforts. In particular, **Mochamad Bruri Triyono** and **Putu Sudira** occupy relatively central positions within the network. Their citation impact combined with collaborative ties suggests that their work contributes to shaping ongoing discussions and connecting related studies within the field. Other contributors such as **Tuatul Mahfud**, **Jacob Hörisch**, and **Isabell Tenner** form smaller collaborative linkages. These connections indicate emerging partnerships that may strengthen the intellectual cohesion of the research area over time.

In contrast, **Mohamed Yacine Haddoud** appears less connected within the co-authorship structure of the dataset despite receiving notable citations. This pattern may suggest that his work intersects with the topic conceptually but is developed within different research networks.

Overall, the visualization indicates that collaboration in this field remains somewhat fragmented. While influential scholars exist, broader international research partnerships are still limited. As the field matures, increased collaboration across institutions and countries could enhance theoretical development and diversify perspectives within PsyCap and social entrepreneurship research.

7. DISCUSSION

This bibliometric analysis sheds light on the intellectual landscape connecting Psychological Capital (PsyCap) and Social Entrepreneurship (SE). The findings reveal that resilience, self-efficacy, and entrepreneurial intention, highlighting the psychological demands placed on social entrepreneurs. The evidence indicates that construct such as resilience, self-efficacy and entrepreneurial intention occupying a central position within the field, such emphasis reflects broader entrepreneurship scholarship, where PsyCap is linked to persistence, coping, and venture performance (Luthans et al., 2007; Hmieleski & Carr, 2008). Within SE, these constructs are particularly salient because of the dual mission of financial viability and social impact (Dacin, Dacin, & Tracey, 2011).

The co-citation analysis confirms the foundational role of Ajzen's (1991) **Theory of Planned Behavior**, which underpins research on entrepreneurial intentions. This suggests that much of the PsyCap and Social entrepreneurship scholarship still focuses on examining of intention, while empirical studies on outcomes such as venture performance and measurable social impact remain limited. Moreover, the

clustering of resilience-focused research, especially during crises like COVID-19 (Hartmann et al., 2020; Santos et al., 2020), indicates the growing recognition of PsyCap as a buffer against systemic shocks.

From Geographical perspective, research is concentrated in developed economies, particularly the United States, China, and the United Kingdom. This reflects global research capacity but also points to a contextual bias, as the dynamics of PsyCap and Social entrepreneurship in developing countries remain underrepresented (Bruton et al., 2015). This gap is significant as Social Entrepreneurship plays a more central role in addressing fundamental needs in low-resource settings, social enterprise often addresses socioeconomic challenges in resource constrained environments, future inquiry must expand beyond Western-centric perspectives.

In practical terms, the analysis suggests that developing PsyCap can enhance the effectiveness of social entrepreneurs. Training programs, mentoring, and education initiatives can be tailored to strengthen self-efficacy, optimism, resilience, and hope among emerging changemakers (Newman et al., 2014). Such effort aligns with growing calls for integrating psychological development into entrepreneurship education and broader support ecosystems.

8. LIMITATIONS AND FUTURE RESEARCH

While this study provides a structured overview of PsyCap–Social Entrepreneurship scholarship, the study has several limitations must be acknowledged. First, the bibliometric analysis was confined to the Scopus database. Although Scopus provide extensive coverage of high quality publication, relevant studies indexed in other database may have not been captured, exclusion of other sources such as Web of Science, Google Scholar, and non-journal outlets (e.g., books, conference proceedings) may have omitted relevant contributions (Zupic & Čater, 2015). Future research should adopt multi-database approaches to generate a more exhaustive map.

Second, the analysis considered only English-language publications. This may have introduced language bias by overlooking significant contributions from non-English contexts, particularly in regions where SE is most critical, such as Latin America, Africa, and Asia (Bruton, Ahlstrom, & Si, 2015). Expanding the scope to include multilingual sources could enrich cultural and contextual diversity in the field.

Third, bibliometric techniques primarily identify structural patterns and trends but cannot fully capture the qualitative depth of individual studies. For instance, while the analysis highlights resilience and self-efficacy as central themes, it does not unpack the lived experiences or psychological mechanisms underpinning these constructs in SE practice. Future studies should combine bibliometrics with qualitative methods such as case studies or biographical analyses (Duchek, 2018).

Building on these limitations, several promising research avenues emerge. First, scholars should move beyond intentions to examine how PsyCap translates into tangible outcomes—venture creation, scaling, and social impact measurement. Longitudinal studies tracking entrepreneurs over time would be particularly valuable. Second, research should explore PsyCap in underrepresented contexts, such as developing countries or fragile states, to uncover unique resilience mechanisms shaped by resource scarcity. Third, future work could investigate the “dark side” of PsyCap, including potential downsides of excessive optimism or resilience leading to burnout (Shepherd, 2003). Finally, practical interventions—such as training programs to cultivate PsyCap among aspiring social entrepreneurs—represent a fertile area for empirical testing and impact evaluation.

9. CONCLUSION

This study provides a comprehensive bibliometric mapping of the intersection between Psychological Capital (PsyCap) and Social Entrepreneurship (SE), revealing a rapidly expanding field with strong theoretical foundations and emerging research frontiers. The analysis identified key themes—resilience, self-efficacy, entrepreneurial intention, and sustainable development—that form the intellectual backbone of PsyCap–SE scholarship. By mapping influential authors, themes and intellectual foundation, the study highlights the growing recognition of psychological capital resources as a critical component of socially oriented entrepreneurial activity. Foundational works, including Ajzen’s (1991) Theory of Planned Behavior and studies on entrepreneurial resilience (Duchek, 2018; Hartmann et al., 2020), continue to shape discourse in this domain. One of the central contributions of this paper is to clarify how psychological resources underpin the success of social ventures. The findings suggest that cultivating PsyCap is not merely desirable but essential for social entrepreneurs, resilience, hope optimism and self-efficacy play a vital role in enabling entrepreneur to navigate uncertainty, sustain long term mission and systemic challenges. Resilience allows entrepreneurs to recover from failure, optimism sustains motivation, self-efficacy empowers social change efforts, and hope fuels long-term missions. Together, these resources serve as psychological scaffolding for sustaining innovation in high-pressure contexts.

However, the field remains limited in several respects. Empirical research is concentrated in developed economies, raising concerns about contextual generalizability. Moreover, much of the literature continues to focus on intentions rather than observable outcomes. To truly advance the field, future research must embrace cross-cultural perspectives, adopt longitudinal designs, and explore interventions that directly enhance PsyCap among entrepreneurs.

Overall the study contributes to a deeper understanding how inner psychological capacities support the creation. and sustainability of social ventures. From a practical standpoint, the study underscores the need for entrepreneurship education, incubators, and policy frameworks to integrate psychological resource development into their programs. Supporting entrepreneurs’ inner capacities is as critical as providing financial or technical resources.

In conclusion, this research affirms that fostering PsyCap in social entrepreneurs is vital for building resilient, sustainable ventures that can generate meaningful social change. As global challenges intensify, PsyCap will remain a crucial determinant of social entrepreneurship’s ability to create lasting impact.

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