

Entrepreneurial Intentions: A 20-Year Global Bibliometric Journey

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Abstract:

Over the past two decades, research on Entrepreneurial Intention (EI) has emerged as a critical field, providing insights into the cognitive processes underpinning entrepreneurial activities. This paper presents a comprehensive bibliometric analysis of two decades of global EI research, utilizing over 5,000 publications indexed in Scopus. Using VOSviewer as a visualization tool, the current study examines trends in publication patterns, identifies key contributors, and highlights thematic areas, emphasizing the importance of frameworks such as the Theory of Planned Behavior (TPB) and entrepreneurial self-efficacy in influencing entrepreneurial intention (EI). Findings indicate a rise in interdisciplinary research, with substantial contributions from business, social sciences, and psychology. Additionally, the study reveals the impact of education, gender, and cultural contexts on EI, offering a roadmap for future research in entrepreneurial education and policy development. This research serves as a valuable resource for academics, educators, and policymakers aiming to promote entrepreneurship globally.

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INTRODUCTION

Entrepreneurial intention (EI) has evolved as an important area of research within the field of entrepreneurship, indicating a person's intention to engage in entrepreneurial activity. Defined as the cognitive state that precedes the actual initiation of entrepreneurial behavior, EI serves as an important factor in business activity and outcomes (Hou, 2019; Bae, 2014; Farrukh, 2019). The concept of EI is founded on numerous theoretical frameworks, particularly the Theory of Planned Behaviour (TPB), which holds attitudes, perceived behavioural control, and subjective norm (Zhang et al., 2019; Liñán & Chen, 2009). This theoretical underpinning has facilitated a deeper understanding of the factors influencing EI, including personality traits, educational experiences, and sociocultural contexts (Zisser, 2019; Türker & Selcuk, 2009). It is impossible to underestimate the significance of EI since it is essential to entrepreneurship, which is an important driver behind innovation and economic growth. (Murad, 2021; Ali, 2023).

According to studies, those who have a strong desire to start their own business are more likely to do so, which promotes economic dynamism and the creation of jobs. (Farrukh, 2019; Bresciani et al., 2020). Furthermore, EI is influenced by various factors such as entrepreneurial education, exposure to role models, and personal attributes like creativity and proactivity (Hu et al., 2018; Boldureanu et al., 2020; Biraglia & Kadile, 2016). For instance, studies have shown that entrepreneurship education significantly enhances students' EI, particularly when it incorporates practical experiences and guidance from successful entrepreneurs (Bae, 2014; Boldureanu, 2020).

In the previous 20 years, the evolution of EI research has witnessed a shift from merely identifying its antecedents to exploring its dynamic nature and contextual influences (Dolhey, 2019; Fini & Toschi, 2016). Recent bibliometric analyses have highlighted the growing body of literature on EI, trends in publication patterns, key authors, and thematic areas of focus (Dolhey, 2019). This evolution reflects a broader recognition of the complexity of entrepreneurial

processes and the need to understand EI not just as a static trait but as a fluid construct influenced by various internal and external factors (McMullen & Dimov, 2013; Kyzy, 2023).

As the entrepreneurial environment keeps changing, it will be vital to comprehend EI in order to create educational initiatives that work, and strategies that grow the upcoming generation of entrepreneurs. In conclusion, studying entrepreneurial intention is vital for comprehending the mechanisms that drive entrepreneurial behavior. By studying how various characteristics interact with one another, educational influences, and socio-cultural contexts, researchers can better understand how to cultivate entrepreneurial intentions that lead to successful entrepreneurial endeavors.

LITERATURE REVIEW

Entrepreneurial intention (EI) is an essential aspect in entrepreneurship studies, primarily referring to a decision to start a new business. Ajzen founded the Theory of Planned Behaviour (TPB) in 1991, which provides the fundamental theoretical framework for understanding entrepreneurial intention. According to TPB, an individual's intention to engage in a behavior is shaped by three key factors: attitudes toward the behavior, subjective norms, and perceived behavioral control (Soria-Barreto, 2017; Ruiz-Alba, 2020). Attitudes represent the person's perspectives, whether good or bad of starting a business, Subjective Norms are those that relate to the perceived social pressures for pursuing entrepreneurial efforts and Perceived Behavioral Control refers to the individual's belief in their ability to execute the behavior successfully (Thompson, 2009; Ruiz-Alba., 2020).

In addition to TPB, various other theoretical models have been integrated into EI research. For instance, the Social Cognitive Career Theory (SCCT) emphasizes the role of self-efficacy and outcome results in shaping entrepreneurial intentions (Liñán & Fayolle, 2015). Furthermore, constructs such as entrepreneurial passion and creativity have been identified as significant predictors of EI, suggesting that personal and environmental factors can substantially influence a person's decision to start their own company (Biraglia & Kadile, 2016). The interaction of the theoretical frameworks stresses the complexity of EI and highlights the necessity for a multi-faceted approach to its study.

The literature indicates the significant factors that affect entrepreneurial intention. Attitudes towards entrepreneurship are of utmost importance; persons with a positive perception of entrepreneurship are more inclined to show an interest to establish their own business (Guzmán-Alfonso & Guzmán-Cuevas, 2012). Subjective norms significantly affect individuals since they are frequently driven by the expectations and actions of their friends and family members (Ruiz-Alba et al., 2020; Jiang et al., 2022). Moreover, perceived behavioural control profoundly impacts entrepreneurial intention, as individuals who believe they have the required skills and resources are more likely to engage in business ventures (Thompson, 2009; Soria-Barreto., 2017). Other determinants include entrepreneurial self-efficacy, which refers to an individual's belief in their ability to successfully execute entrepreneurial tasks (Wąsowska, 2016). Research has demonstrated that higher levels of self-efficacy correlate positively with stronger entrepreneurial intentions (Wąsowska, 2016). Furthermore, external factors such as entrepreneurial education and exposure to role models have been found to enhance EI by providing individuals with the knowledge and confidence needed to embark on entrepreneurial endeavors (Li & Wu, 2019; Islamiah, 2022). These characteristics collectively demonstrate the complex nature of entrepreneurial intention (EI) and the diverse psychological and contextual elements influencing a person's decision to pursue entrepreneurship.

Research on entrepreneurial intention has evolved significantly over the past two decades, which have been marked by several key milestones. Early studies primarily focused on conceptualizing EI and establishing its theoretical foundations, often utilizing the TPB as a guiding framework (Thompson, 2009; Guzmán-Alfonso & Guzmán-Cuevas, 2012). These foundational studies laid the groundwork for subsequent empirical research, which sought to validate the constructs associated with EI and explore their applicability across different contexts and populations (Liñán & Chen, 2009). As the field matured, researchers began to investigate the antecedents of EI more rigorously, leading to the development of various measurement instruments and models (Liñán & Chen, 2009). For instance, work on cross-cultural applications of EI measurement tools has been instrumental in advancing the understanding of how cultural

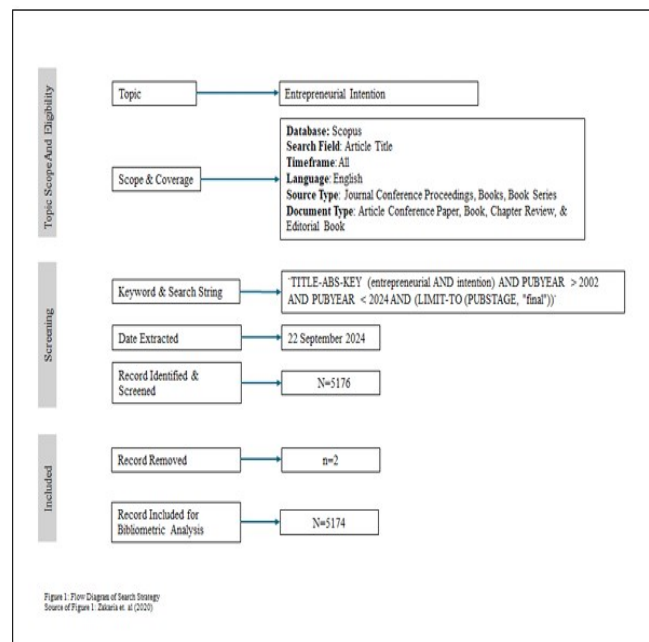
contexts influence entrepreneurial intentions (Liñán & Chen, 2009). Additionally, the integration of new theoretical perspectives, such as SCCT and expectancy theory, has enriched the discourse surrounding EI, allowing for a more nuanced understanding of the factors that drive entrepreneurial behavior (Liñán & Fayolle, 2015; Biraglia & Kadile, 2016).

The emphasis of EI research has transitioned from mostly theoretical discourse to more empirical and contextually relevant studies. Initially, most of the research was centered on establishing the EI as a construct and its relationship with entrepreneurial behavior (Thompson, 2009; Guzmán-Alfonso & Guzmán-Cuevas, 2012). However, as the field has progressed, there has been a marked increase in studies examining the contextual factors influencing EI, such as cultural, social, and educational influences (Hou et al., 2019; Tentama, 2018; Li & Wu, 2019). Recent trends indicate a growing interest in understanding the role of demographic variables, such as gender and socioeconomic background, in shaping EI (Fayolle & Gailly, 2013; Liu & Chen, 2021). Additionally, the impact of entrepreneurship education has emerged as a significant area of inquiry, with numerous studies highlighting its effectiveness in fostering EI among students and young adults (Li & Wu, 2019; Islamiah, 2022). This growth results from a wider understanding of the varied nature of entrepreneurial processes and the necessity of considering a wide range of variables that affect EI in various contexts and demographics. In conclusion, the study of entrepreneurial intention has evolved from foundational theoretical explorations to a rich tapestry of empirical research that encompasses a variety of determinants and contextual influences. Continuous investigation is vital to reveal fresh perspectives and address the obstacles that persist in understanding and encouraging entrepreneurial intention.

METHODS

The study methodology involved two primary analyses: statistical assessment of datasets derived from the Scopus database and network analysis using VOSviewer 1.6.19. This combination enabled a comprehensive examination of the research landscape for entrepreneurial intention. For statistical analysis, the study used Scopus, a widely accepted and comprehensive database, to examine various aspects of the research including documents arranged according to the source, year, topic, kind, country, author, affiliation, and funding support. In addition, the study used VOSviewer, a dedicated software tool, to perform a network analysis of the retrieved datasets. This tool allowed the study to examine concurrent citations, co-occurrences, and collaborative networks within the research dataset. Using VOSviewer, the study visualized the relationships and interactions between publications, authors, and research institutions, as well as identified clusters of related studies, salient research trends, and key contributors in the field of entrepreneurial intent. This approach provided valuable insights into the knowledge structure and thematic patterns within the literature.

The combination of statistical analysis from Scopus and network analysis from VOSviewer aims to provide a comprehensive and in-depth understanding of the current state of research on entrepreneurial intentions. Besides, this methodology provides an extensive overview of the field's development, research collaborations, and emerging areas of interest, allowing meaningful conclusions and significant implications to be drawn from the data analysis. For entrepreneurial intention research, the study followed the approach of Zakaria et al. (2021), who used Scopus as the main data source.



The present study searched for articles from 2004 to 2024 using keywords like "entrepreneurial" and "intention," yielding 5,176 publications without restrictions on language or country, ensuring diverse perspectives.

Table 1. Fundamental Keywords and Limits

Fundamental Keywords	Publication Year	Publication Stage
Entrepreneurial AND intention	1970-2024	Final

Source of Table 1: Author's work using MS Excel

Thus, the search query used for the analysis is as follows:

``TITLE-ABS-KEY (entrepreneurial AND intention) AND PUBYEAR > 1974 AND PUBYEAR < 2024 AND (LIMIT-TO (PUBSTAGE, "final"))``

A search string was applied to the Article title database to find key studies. Clustering techniques identified relationships between publications through direct citations. Bibliographic data was then imported into VOSviewer to generate network maps showing author and country co-authorships, as well as keyword co-occurrences.

RESULTS

The data for the study was derived from a total of 5176 publications collected on September 30, 2024. After an initial round of cross-validation, a total of two papers were deemed not suitable for inclusion. The study analyzed the Scopus database for entrepreneurial intention publications, finding that the majority are primarily in English, with 5030 publications representing 97.21%, indicating English as the primary language for sharing research insights on this subject.

Document and Source Types

Among the papers included in Table 3, a total of 4126 papers, accounting for 81.5% of the overall distribution, were classified as articles. Articles are commonly regarded as comprehensive research papers that provide novel discoveries, approaches, and analyses. The abundance of papers suggests a significant focus on empirical research and intellectual contributions in comprehending the process of entrepreneurial intention.

Table 2. Document Type

Document Type	Total Publication	Percentages
Article	4216	81.5%
Conference Paper	426	8.2
Book Chapter	344	6.6
Review	91	1.8
Conference Review	32	0.6
Book	24	0.5
Erratum	16	0.3
Editorial	10	0.2

Source of Table 2: Author's work using Ms Excel

Conference papers, accounting for 8.2% of publications, are shorter, early research findings or new ideas, promoting feedback and discussion within the academic community. The total number of publications on entrepreneurial intention is 6.6%, with 344 book chapters, 1.8% review articles, and 0.2% editorials. Book chapters provide a detailed examination of entrepreneurial intention, while review articles summarize existing research and identify gaps. Editorials offer expert opinions and offer insights on the state of research in the field. The conference reviews comprise 0.6% of publications, highlighting research findings and trends. Books, accounting for 0.5%, offer a comprehensive view of entrepreneurial intention. Errata and editorials, 0.3% and 0.2%, are smaller but significant contributions to the academic conversation. In conclusion, journal articles and conference papers dominate entrepreneurial intention research, focusing on empirical studies and knowledge-sharing. Book chapters, reviews, and books provide comprehensive analyses, advancing detailed study and broader understanding.

Table 3. Source Type

Source Type	Total Publication	Percentages
Journals	4351	84.1%
Conference Proceedings	389	7.5%
Books	222	4.3%
Book Series	211	4.08%
Total	5174	100%

Source of Table 3: Author's work using Ms Excel

Table 3 shows 4351 primary journals (84.1%) in entrepreneurial intention research, ensuring quality and dependability through rigorous peer-review procedures. Conference proceedings account for 7.50% of publications, presenting research on entrepreneurial intention. Books, accounting for 4.30%, offer comprehensive coverage and in-depth analysis of the topic, providing holistic perspectives, theoretical frameworks, and practical insights on entrepreneurial intention among SMEs. The inclusion of books indicates a desire to present a comprehensive comprehension of the subject, possibly aimed at a broader audience than the academic community. Book series, comprising multiple volumes or editions, account for 4.08% of the total publications on entrepreneurial intention among SMEs. These sources offer in-depth examinations from various perspectives, with journals and conference proceedings dominating the landscape. Books and book series provide comprehensive coverage and analysis, targeting both academic and non-academic audiences.

Year of Publications/Evolution of Published Studies

Table 4 shows the annual growth of the top 10 years-related publications. The year 2023 has the greatest number of publications (745) compared to all other years considered. The cumulative percentage column indicates the proportion of total publications that have accumulated over time. The graph shows that more than half of the articles (about 68.14%) focus on the last five years (2019-2024). This reinforces the notion that the research field of entrepreneurial intention is a dynamic and evolving field of research.

Table 4: Year of Publications

Year	Publication	Percentage (%)
2024	594	11.48%
2023	745	14.40
2022	675	13.04
2021	567	10.96

2020	504	9.74
2019	441	8.52
2018	294	5.68
2017	296	5.72
2016	205	3.96
2015	184	3.56

Source of Table 4: Author's work using Ms Excel

Subject Area

The distribution of research publications across diverse subject areas provides valuable insights into the interdisciplinary nature of entrepreneurial intention studies.

Table 5: Subject Area

Subject Area	Total Publication	Percentage (%)
Business Management & Accounting	3299	34.5
Social Sciences	1894	19.8
Economics, Econometrics & Finance	1435	15
Computer Science	529	5.5
Engineering	436	4.6
Psychology	392	4.1
Environmental Science	314	3.3
Decision Sciences	304	3.2
Energy	221	2.3
Art and Humanities	204	2.1

Source of Table 5: Author's work using Ms Excel

As shown in Table 5, the majority of publications (34.5%) fall under the category of Business, Management, and Accounting, highlighting the central role these disciplines play in shaping research related to entrepreneurship. Social Sciences account for 19.8% of the total publications, reflecting the field's focus on understanding human behavior and societal influences in entrepreneurial activities. Economics, Econometrics, and Finance represent 15% of the publications, indicating a significant interest in the financial aspects of entrepreneurship, such as funding, investment, and market dynamics. Meanwhile, Computer Science (5.5%) and Engineering (4.6%) underscore the growing intersection of technology and entrepreneurship, where innovation and digital transformation are critical factors in business success. Smaller but notable contributions come from Psychology (4.1%) and Environmental Science (3.3%), suggesting a focus on the psychological determinants of entrepreneurial behavior and the increasing relevance of sustainable entrepreneurship. Similarly, Decision Sciences (3.2%) reflect the importance of strategic decision-making in entrepreneurial ventures. Other areas, such as Energy (2.3%) and Arts and Humanities (2.1%), indicate niche but emerging interests, particularly as entrepreneurship extends its reach into diverse sectors.

This data highlights the breadth of research that contributes to a holistic understanding of entrepreneurship across multiple disciplines. This diverse body of research highlights the multidisciplinary nature of entrepreneurial intention studies, spanning from business practices and economic policy to technological innovation and psychological analysis. The high concentration of publications in business-related fields and social sciences reflects the importance of understanding both organizational and human factors in entrepreneurship, while the growing attention to technology and engineering underscores the evolving landscape of digital entrepreneurship.

Most Active Source Titles

Table 6 presents a variety of sources contributing to research on entrepreneurial intention, including journals and conference proceedings.

Table 6: Source Title

Sources Title	Total Publications	Percentage (%)
Frontiers In Psychology	162	3.13%
Sustainability Switzerland	150	2.9%
International Journal of Entrepreneurial Behaviour and Research	105	2.02

International Entrepreneurship and Management Journal	104	2.01
International Journal of Management Education	100	1.93
Education and Training	97	1.87
International Journal of Entrepreneurship and Small Business	80	1.54
Journal Of Entrepreneurship in Emerging Economies	68	1.31
Proceedings of the European Conference on Innovation and Entrepreneurship Ecie	61	1.17
Journal Of Small Business and Enterprise Development	60	1.16

Source of Table 6: Author's work using Ms Excel

The most active source is *Frontiers in Psychology*, with 162 publications (3.13%), followed by *Sustainability Switzerland*, with 150 publications (2.9%). Other key sources include the *International Journal of Entrepreneurial Behaviour and Research*, with 105 publications (2.02%); the *International Entrepreneurship and Management Journal*, with 104 publications (2.01%); and the *International Journal of Management Education*, with 100 publications (1.93%). These diverse sources highlight the broad range of platforms researchers use to explore entrepreneurial intention.

Keywords Analysis

The author's keyword analysis, as shown in Table 7, reveals the most frequently encountered terms in research on entrepreneurial intention.

Table 7: Author Keyword Analysis

Author Keyword	Total Publication	Percentage (%)
Entrepreneurial Intention	2324	45%
Entrepreneurship	1046	20.22%
Entrepreneurship Education	645	12.47%
Students	559	10.8%
Theory of Planned Behaviour	481	9.3
Entrepreneur	303	5.86
Self-Efficacy	262	5.06
Entrepreneurial Self-Efficacy	244	4.72%
Education	236	4.56
Entrepreneurial Education	218	4.21

Source of Table 7: Author's work using Ms Excel

The most common keyword, with 2324 publications (45%), is *Entrepreneurial Intention*, reflecting its centrality in this field of study. The keyword *Entrepreneurship* appears in 1046 publications (20.22%), indicating a strong focus on the broader subject of entrepreneurial activities and processes. *Entrepreneurship Education* is mentioned in 645 publications (12.47%), highlighting the importance of educational frameworks and programs aimed at fostering entrepreneurial skills. Similarly, *Students* is a key term in 559 publications (10.8%), suggesting significant interest in studying entrepreneurial intention among the student population.

The *Theory of Planned Behavior (TPB)*, a frequently used theoretical framework in this research area, is featured in 481 publications (9.3%). This shows its widespread use in understanding how attitudes, perceived behavioral control, and subjective norms shape entrepreneurial intentions. *Self-Efficacy* and *Entrepreneurial Self-Efficacy* are other important keywords, appearing in 262 (5.06%) and 244 (4.72%) publications, respectively. These terms emphasize the role of confidence and belief in one's ability to succeed as a critical factor in entrepreneurship. Other significant keywords include *Education* (236 publications, 4.56%) and *Entrepreneurial Education* (218 publications, 4.21%), showing continued interest in the educational aspects of entrepreneurship. Additionally, terms like *Gender* (215 publications, 4.16%) and *Innovation* (133 publications, 2.57%) underscore the relevance of gender studies and innovative practices in entrepreneurial research. Overall, the author's keyword analysis highlights key research themes in the study of entrepreneurial intention, focusing on education, self-efficacy, and theoretical frameworks like the TPB, with an emphasis on both individual and contextual factors shaping entrepreneurial behavior.

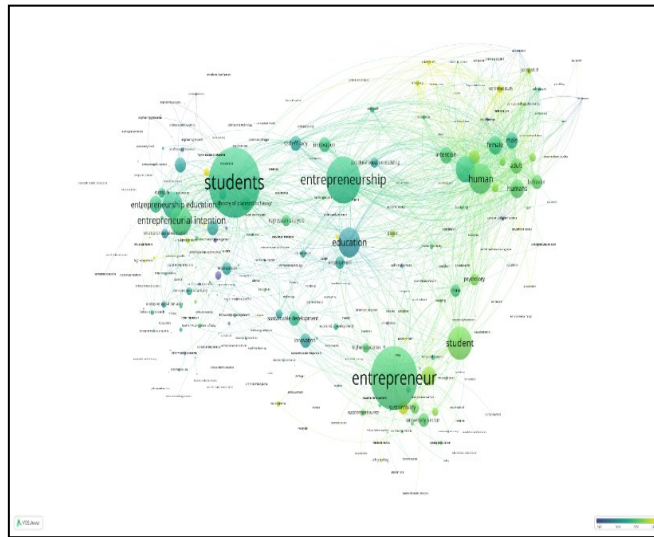


Figure 1: Network visualization map of the author keywords

Geographical Distribution of Publications - Most Influential Countries

Table 8 presents the geographical distribution of publications on entrepreneurial intention from the top 10 countries.

Table 8. Top 10 Countries Contributed to the Publications

Country	Total Publication	Percentage (%)
United States	552	10.67%
China	498	9.45%
Spain	419	8.1%
Malaysia	376	7.27%
India	340	6.57%
United Kingdom	333	6.43%
Indonesia	269	5.2
Germany	236	4.56
France	184	3.56
Australia	174	3.36

Source of Table 8: Author's work using Ms Excel

The United States leads with 552 publications (10.67%), followed closely by China with 498 publications (9.45%) and Spain with 419 publications (8.1%). Malaysia and India contribute 376 (7.27%) and 340 (6.57%) publications, respectively. The United Kingdom ranks sixth with 333 publications (6.43%), while Indonesia follows with 269 publications (5.2%). Other notable contributors include Germany (236 publications, 4.56%), France (184 publications, 3.56%), and Australia (174 publications, 3.36%).

The data highlights the concentration of research output in certain countries, with the United States and the United Kingdom as the leading contributors. Notably, countries like Malaysia and Indonesia also demonstrate significant involvement in this research area, indicating a growing interest in entrepreneurial intentions in the Southeast Asian region. The presence of various countries on the co-authorship map suggests a collaborative effort in this field, with many nations meeting the co-authorship criteria for multiple publications.

Authorship

Table 9 presents the authorship details for researchers who have published multiple documents in the field of entrepreneurial intention.

Table 9. Authorship (Network Map)

Author Name	No of Documents	Percentage (%)
Linan,F.	37	0.72
Wibowo,A.	34	0.66
Duong,C.D	33	0.63
Wibowo,A.	31	0.6
Narmaditya,B.S	26	0.5
Lian,C.	19	0.36
Saleem,I.	16	0.31
Fayolle,A.	15	0.29
Moriano,J.A.	14	0.27
Ramadani,V.	14	0.27
Ip,CY.	13	0.25
Sahinidis,A.G	13	0.25

Source of Table 9: Author's work using Ms Excel

The table highlights Linan, F. as the most prolific author with 37 documents (0.72%), followed by Wibowo, A. with 34 documents (0.66%) and Duong, C.D. with 33 documents (0.63%). Other notable contributors include Wibowo, A. (31 documents), Narmaditya, B.S. (26 documents), and Lian, C. (19 documents).

This data underscores the active participation of these authors in advancing the research on entrepreneurial intention. Notably, authors such as Saleem, I. (16 documents), Fayolle, A. (15 documents), Moriano, J.A. (14 documents), and Ramadani, V. (14 documents) further enrich the field. In total, 12 authors are recognized for their contributions, showcasing a diverse range of names and affiliations that reflect a global representation of scholars. This international perspective enhances the understanding of entrepreneurial intention, as it allows for the exploration of varied regional contexts, challenges, and solutions in small and medium enterprises (SMEs).

Most Influential Institutions

Table 10 presents the institutional analysis of research contributions in the field of entrepreneurial intention, focusing on institutions with a minimum of four publications.

Table 10. Most Influential Institutions

Institution	Total Publication	Percentage (%)
Universidad De Sevilla	65	1.26
Universidade de Beira Interior	54	1.94
Universitas Negeri Jakarta	49	0.95
Universitat De Valencia	48	0.93
Universiti Kebangsaan Malaysia	40	0.77
Universitas Negeri Malang	39	0.75
Universitat de Valencia	37	0.71
Universiti Utara Malaysia	35	0.67
Universiti Putra Malaysia	34	0.65
Universiti Teknologi MARA	33	0.63
King Faisal University	30	0.58
Universiti Malaysia Kelantan	28	0.54

Source of Table 10: Author's work using Ms Excel

Universidad De Sevilla leads the list with 65 publications (1.26%), demonstrating its significant impact in this research area. Following closely is Universidade de Beira Interior, with 54 publications (1.94%), indicating a robust engagement with the topic. Universitas Negeri Jakarta and Universitat De Valencia also contribute notably, with 49 (0.95%) and 48 (0.93%) publications, respectively. Further down the list, Universiti Kebangsaan Malaysia stands out with 40 publications (0.77%), showcasing its active involvement in research on entrepreneurial intention. Other key institutions include Universitas Negeri Malang, with 39 publications (0.75%), and Universitat de Valencia, with 37 publications (0.71%), both of which underline the collaborative nature of research in this domain. Additional contributors such as Universiti Utara Malaysia (35 publications, 0.67%), Universiti Putra Malaysia (34 publications, 0.65%), and Universiti Teknologi MARA (33 publications, 0.63%) further emphasize the growing research interest in Malaysia, particularly among local institutions. The presence of King Faisal University and Universiti Malaysia Kelantan, with 30 (0.58%)

and 28 (0.54%) publications, respectively, also highlights the regional commitment to exploring the dynamics in entrepreneurial intention studies.

Citation Analysis

The value of research is often measured by its impact on subsequent studies, as indicated by Shadbolt et al. (2006). The citation metrics of seminal works in the field of entrepreneurial intentions and education from 1993 to 2017, outlined in Table 11, underscore their profound influence on the academic discourse surrounding entrepreneurship education.

Table 11: High Cited Articles

Authors	Title	Year	Cited by
Fayolle A.; Gailly B.	The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence	2015	3400
Mcgee J.E.; Peterson M.; Mueller S.L.; Sequeira J.M.	Entrepreneurial self-efficacy: Refining the measure	2009	2212
Chen C.C.; Greene P.G.; Crick A	Does entrepreneurial self-efficacy distinguish entrepreneurs from managers?	1998	1914
Fayolle A.; Gailly B.; Lassas-Clerc N.	Assessing the impact of entrepreneurship education programmes: A new methodology	2006	1888
Zhao H.; Seibert S.E.; Lumpkin G.T.	The relationship of personality to entrepreneurial intentions and performance: A meta-analytic review	2010	1491
Nabi G.; Liñán F.; Fayolle A.; Krueger N.; Walmsley A	The impact of entrepreneurship education in higher education: A systematic review and research agenda	2017	1335
Wilson F.; Kickul J.; Marlino D	Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education	2007	1129
Bae T.J.; Qian S.; Miao C.; Fiet J.O.	The Relationship Between Entrepreneurship Education and Entrepreneurial Intentions: A MetaAnalytic Review	2014	1034
Gupta V.K.; Turban D.B.; Wasti S.A.; Sikdar A.	The role of gender stereotypes in perceptions of entrepreneurs and intentions to become an entrepreneur	2009	1006
Krueger N.F., Jr.; Carsrud A.L.	Entrepreneurial intentions: Applying the theory of planned behaviour	1993	936

Source of Table 10: Author's work using Ms Excel

Fayolle and Gailly's (2015) study, "The Impact of Entrepreneurship Education on Entrepreneurial Attitudes and Intention: Hysteresis and Persistence," with 3,400 citations, is a pivotal work that demonstrates how entrepreneurship education can foster long-lasting changes in entrepreneurial attitudes and intentions. This work has become a cornerstone for understanding the persistent effects of educational interventions on entrepreneurial outcomes.

The measurement of entrepreneurial self-efficacy, a critical psychological construct in entrepreneurship research, was refined by McGee et al. (2009), whose work has garnered 2,212 citations. This study laid the groundwork for further investigations into self-efficacy as a key determinant of entrepreneurial behavior, a concept also examined by Chen, Greene, and Crick (1998). Their research, cited 1,914 times, delved into the distinction between entrepreneurs and managers through the lens of self-efficacy, further reinforcing the role of psychological traits in entrepreneurial success. Fayolle, Gailly, and Lassas-Clerc (2006) made a significant contribution with their introduction of a new methodology to assess entrepreneurship education programs, earning 1,888 citations. This methodological framework has been widely adopted by scholars and institutions to evaluate the efficacy of entrepreneurship education initiatives. Zhao, Seibert, and Lumpkin's (2010) meta-analytic review, which has received 1,491 citations, examined the relationship between personality traits and entrepreneurial intentions, adding valuable insights into the psychological predictors of entrepreneurial activity. The systematic review by Nabi et al. (2017), cited 1,335 times, has been instrumental in synthesizing the impact of entrepreneurship education in higher education. This comprehensive review has provided a solid foundation for researchers seeking to understand the effectiveness of educational programs designed to cultivate entrepreneurial mindsets.

In terms of gender and entrepreneurial intentions, the work by Wilson, Kickul, and Marlino (2007) explored the intersection of gender and entrepreneurial self-efficacy, garnering 1,129 citations. This study has shed light on the demographic factors influencing entrepreneurial intentions and has prompted further research into gender disparities in

entrepreneurship. Bae (2014), with 1,034 citations, conducted a meta-analytic review that further solidified the relationship between entrepreneurship education and entrepreneurial intentions, reinforcing the critical role education plays in fostering entrepreneurship. Gupta et al. (2009) contributed to the discourse on gender stereotypes and entrepreneurial perceptions, receiving 1,006 citations. Their research highlights the social and cultural dimensions that shape entrepreneurial aspirations. Lastly, Krueger and Carsrud's (1993) application of the Theory of Planned Behavior to entrepreneurial intentions, cited 936 times, has provided a theoretical framework that continues to influence studies on the psychological determinants of entrepreneurial behavior. Their work remains a foundational reference in understanding how attitudes, subjective norms, and perceived behavioral control shape entrepreneurial intentions.

The cumulative citation data of these works underscores their substantial influence on both theoretical and practical aspects of entrepreneurship research. These publications have not only advanced the academic understanding of entrepreneurial intentions and education but have also provided actionable insights for educators and policymakers aiming to foster entrepreneurial growth.

DISCUSSION AND CONCLUSION

The findings from this bibliometric review offer critical insights into the progression of research on entrepreneurial intention over the past century. One of the most significant trends identified is the increasing focus on the psychological and behavioral factors driving entrepreneurial decisions, such as motivation, self-efficacy, and perceived behavioral control, in alignment with the Theory of Planned Behavior. This emphasis reflects a growing recognition of the complex interplay between individual intention and broader socio-economic factors, suggesting a multidisciplinary approach to entrepreneurial research. Moreover, the analysis highlights several influential works that have shaped the field, with many of these studies providing foundational frameworks that have been applied in various contexts, from developed economies to emerging markets.

These directions not only expand the theoretical base but also offer practical implications for policymakers and educators aiming to foster entrepreneurial ecosystems that are adaptable to contemporary challenges. By understanding the historical trajectory and current landscape of entrepreneurial intention research, scholars can better frame their future studies within the broader narrative of entrepreneurship.

Conclusion

This bibliometric review offers an in-depth analysis of the evolution of entrepreneurial intention research over the past century. By identifying key trends, influential publications, and emerging themes, it provides valuable insights and a roadmap for future research in the field.

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REFERENCES

- Ali, M. (2023). A cross-culture study of entrepreneurial intention: the moderating role of national culture. *European Conference on Innovation and Entrepreneurship*, 18(1), 19-28. <https://doi.org/10.34190/ecie.18.1.1779>
- Bae, T., Qian, S., Cai, M., & Fiet, J. (2014). The relationship between entrepreneurship education and entrepreneurial intentions: a meta-analytic review. *Entrepreneurship Theory and Practice*, 38(2), 217-254. <https://doi.org/10.1111/etap.12095>
- Biraglia, A. and Kadile, V. (2016). The role of entrepreneurial passion and creativity in developing entrepreneurial intentions: insights from american homebrewers. *Journal of Small Business Management*, 55(1), 170-188. <https://doi.org/10.1111/jsbm.12242>
- Boldureanu, G., Ionescu, A., Bercu, A., Bedrule-Grigoriuță, M., & Boldureanu, D. (2020). Entrepreneurship education through successful entrepreneurial models in higher education institutions. *Sustainability*, 12(3), 1267. <https://doi.org/10.3390/su12031267>
- Bresciani, S., Lopes, L., Johann, D., Moura, G., Almeida, D., & Teixeira, C. (2020). Modeling entrepreneurial intent as a predictor of frugal innovation in university students. *Revista De Administração Da Ufsm*, 13(3), 643-663. <https://doi.org/10.5902/1983465943879>
- Dolhey, S. (2019). A bibliometric analysis of research on entrepreneurial intentions from 2000 to 2018. *Journal of Research in Marketing and Entrepreneurship*, 21(2), 180-199. <https://doi.org/10.1108/jrme-02-2019-0015>
- Farrukh, M., Lee, J., Sajid, M., & Waheed, A. (2019). Entrepreneurial intentions. *Education + Training*, 61(7/8), 984-1000. <https://doi.org/10.1108/et-09-2018-0194>
- Fayolle, A. and Gailly, B. (2013). The impact of entrepreneurship education on entrepreneurial attitudes and intention: hysteresis and persistence. *Journal of Small Business Management*, 53(1), 75-93. <https://doi.org/10.1111/jsbm.12065>
- Fini, R. and Toschi, L. (2016). Academic logic and corporate entrepreneurial intentions: a study of the interaction between cognitive and institutional factors in new firms. *International Small Business Journal Researching Entrepreneurship*, 34(5), 637-659. <https://doi.org/10.1177/0266242615575760>
- Guzmán-Alfonso, C. and Guzmán-Cuevas, J. (2012). Entrepreneurial intention models as applied to latin america. *Journal of Organizational Change Management*, 25(5), 721-735. <https://doi.org/10.1108/09534811211254608>
- Hou, F., Su, Y., Lu, M., & Qi, M. (2019). Model of the entrepreneurial intention of university students in the pearl river delta of china. *Frontiers in Psychology*, 10. <https://doi.org/10.3389/fpsyg.2019.00916>
- Hu, R., Wang, L., Zhang, W., & Peng, B. (2018). Creativity, proactive personality, and entrepreneurial intention: the role of entrepreneurial alertness. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.00951>
- Islamiah, F. (2022). The effect of entrepreneurship education on entrepreneurial intentions through internal locus of control and innovativeness. *International Journal of Economy Education and Entrepreneurship (Ije3)*, 2(2), 325-334. <https://doi.org/10.53067/ije3.v2i2.65>
- Kyzy, B. (2023). Matkasym: an entrepreneurial journey from bazaar to factory. *South Asian Journal of Business and Management Cases*, 12(2), 194-206. <https://doi.org/10.1177/22779779231189546>
- Li, L. and Wu, D. (2019). Entrepreneurial education and students' entrepreneurial intention: does team cooperation matter? *Journal of Global Entrepreneurship Research*, 9(1). <https://doi.org/10.1186/s40497-019-0157-3>
- Liñán, F. and Fayolle, A. (2015). A systematic literature review on entrepreneurial intentions: citation, thematic analyses, and research agenda. *International Entrepreneurship and Management Journal*, 11(4), 907-933. <https://doi.org/10.1007/s11365-015-0356-5>

- Liu, L. and Chen, B. (2021). Hot topics and frontier evolution of research on entrepreneurial intentions——visual analysis based on the core collection of web of science database. *E3s Web of Conferences*, 252, 03015. <https://doi.org/10.1051/e3sconf/202125203015>
- Lu, H. and Wang, J. (2018). Entrepreneurial intention of two patterns of planned behaviour and alertness: empirical evidence in china. *Journal of Asian Finance Economics and Business*, 5(2), 63-72. <https://doi.org/10.13106/jafeb.2018.vol5.no2.63>
- McMullen, J. and Dimov, D. (2013). Time and the entrepreneurial journey: the problems and promise of studying entrepreneurship as a process. *Journal of Management Studies*, 50(8), 1481-1512. <https://doi.org/10.1111/joms.12049>
- Murad, M., Cai, L., Ashraf, S., & Arora, S. (2021). The influence of entrepreneurial passion in the relationship between creativity and entrepreneurial intention. *International Journal of Global Business and Competitiveness*, 16(1), 51-60. <https://doi.org/10.1007/s42943-021-00019-7>
- Ruiz-Alba, J., Parra, V., Oblitas, J., & Mediano, J. (2020). Entrepreneurial intentions: a bibliometric analysis. *Journal of Small Business and Enterprise Development*, 28(1), 121-133. <https://doi.org/10.1108/jsbed-07-2019-0221>
- Soria-Barreto, K., Honores-Marín, G., Gutiérrez-Zepeda, P., & Gutiérrez-Rodríguez, J. (2017). Prior exposure and educational environment towards entrepreneurial intention. *Journal of Technology Management & Innovation*, 12(2), 45-58. <https://doi.org/10.4067/s0718-27242017000200006>
- Thompson, E. (2009). Individual entrepreneurial intent: construct clarification and development of an internationally reliable metric. *Entrepreneurship Theory and Practice*, 33(3), 669-694. <https://doi.org/10.1111/j.1540-6520.2009.00321.x>
- Türker, D. and Selcuk, S. (2009). Which factors affect entrepreneurial intention of university students? *Journal of European Industrial Training*, 33(2), 142-159. <https://doi.org/10.1108/03090590910939049>
- Zhang, F., Wei, L., Sun, H., & Tung, L. (2019). How entrepreneurial learning impacts one's intention towards entrepreneurship. *Chinese Management Studies*, 13(1), 146-170. <https://doi.org/10.1108/cms-06-2018-0556>
- Zisser, M., Johnson, S., Freeman, M., & Staudenmaier, P. (2019). The relationship between entrepreneurial intent, gender and personality. *Gender in Management an International Journal*, 34(8), 665-684. <https://doi.org/10.1108/gm-08-2018-0105>