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Psychological Resilience and Entrepreneurial Self-Efficacy among Hospitality and Tourism Students and Graduates: A Bibliometric Review and Future Research Agenda

Mohd Zool Fadli Ibrahim¹, Joesri Mohamad Saber^{1,*}, Raja Iskandar Putera Raja Mustapha¹, Khairil Anuar Bahari¹, Fairuz Abd Hakim¹, Riana Nurmallasari²

¹ Faculty of Hotel and Tourism Management, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pau, 13500 Permatang Pau, Pulau Pinang, Malaysia

² Mechanical Engineering Department, Engineering Faculty, Universitas Negeri Malang, Indonesia

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ABSTRACT

Research on entrepreneurial development and psychological preparedness among hospitality and tourism students has expanded considerably, yet entrepreneurial self-efficacy and psychological resilience have largely developed as separate streams of inquiry. This study aims to map the intellectual landscape of research on psychological resilience and entrepreneurial self-efficacy among hospitality and tourism students and graduates and to identify future research directions. A bibliometric review was conducted using 144 English-language journal articles and reviews retrieved from the Web of Science Core Collection. Bibliometric analyses were performed using Bibliometrix and Biblioshiny in R, combining performance analysis with science mapping techniques, including keyword co-occurrence, thematic mapping, thematic evolution, and conceptual structure analysis using Multiple Correspondence Analysis. The findings reveal sustained growth in scholarly output, with publication activity accelerating markedly after 2021 and reaching its highest level in 2025. Entrepreneurship education emerged as a dominant research theme. At the same time, entrepreneurial self-efficacy occupied a central position within the knowledge structure through its associations with entrepreneurial intention, tourism education, and related educational concepts. Psychological resilience emerged as an increasingly important theme associated with students' adaptability, well-being, and career preparedness. Thematic evolution further indicates a progression from tourism education towards entrepreneurial intention, COVID-19-related research, and more recent interest in sustainable entrepreneurship. Overall, the findings demonstrate an expanding intellectual landscape in which entrepreneurial development and psychological preparedness are increasingly relevant to hospitality and tourism education. Future research should integrate entrepreneurial self-efficacy and psychological resilience within unified frameworks while extending investigation towards digital and sustainable entrepreneurship and more diverse methodological and geographical contexts.

* Corresponding author.

E-mail address: joesr630@uitm.edu.my

1. Introduction

Entrepreneurship education has become an increasingly prominent area of inquiry within hospitality and tourism education, with recent studies consistently examining its role in fostering entrepreneurial intention and encouraging graduates to pursue tourism-related venture creation. According to Ntshangase and Ezeudujì [1], entrepreneurship education positively influenced tourism students' entrepreneurial intentions by strengthening their perceptions of the desirability and feasibility of establishing tourism-related businesses. Similarly, Zhang *et al.*, [2] found that entrepreneurship education positively influenced entrepreneurial intention among tourism and hospitality students, with empirical training emerging as the leading contributor, while theoretical enhancement, social worth, and risk-taking further strengthened entrepreneurial intention. Evidence from Malaysia also showed that hospitality students expressed notable entrepreneurial intentions, motivated by market opportunities, earning a reasonable living, self-challenge, and personal freedom. However, limited collateral, savings, and access to bank finance remained important barriers [3]. More recent evidence from Malaysian hospitality education further reinforces the importance of entrepreneurship education. Majid *et al.*, [4] found that entrepreneurial education, entrepreneurial attitude, and entrepreneurial self-efficacy significantly predicted entrepreneurial intentions among hospitality students, with entrepreneurial education emerging as the strongest predictor. The authors further suggested that experiential entrepreneurial learning should be continuously embedded throughout hospitality programmes rather than concentrated within specific stages of study. Entrepreneurial intention has additionally been associated with self-efficacy and attitudes towards entrepreneurship [5], while creativity and bridging social capital have been linked to stronger entrepreneurial intention and entrepreneurial conviction among tourism students [6]. Collectively, these findings demonstrate that entrepreneurship among hospitality and tourism students is shaped by educational experiences, individual psychological attributes, social influences, and perceived resource availability.

Although entrepreneurship education equips students with entrepreneurial knowledge and capabilities, successful career development also depends on graduates' ability to respond to an increasingly dynamic employment environment. Recent evidence suggests that hospitality and tourism students face considerable career uncertainty, particularly during periods of industry disruption. Ren *et al.*, [7] reported that international hospitality management students encountered bleak career prospects during the COVID-19 pandemic, while language communication competence enabled them to recognise career opportunities and strengthen their career adaptability. Ishak *et al.* [8] similarly found that entrepreneurial cognition strengthened students' entrepreneurial intention both directly and through personal attitude and perceived behavioural control, highlighting the importance of internal cognitive and psychological mechanisms in entrepreneurial decision-making. Furthermore, Amissah *et al.*, [9] reported that psychological well-being was positively associated with career intentions, whereas Alismail *et al.*, [10] found that psychological capital contributed positively to students' achievement motivation. Together, these studies indicate that career readiness among hospitality and tourism students is shaped by a combination of career-related competencies, individual perceptions, and positive psychological resources, all of which contribute to graduates' preparedness for increasingly uncertain employment environments.

Entrepreneurial self-efficacy has consequently emerged as an important explanation of how educational, motivational, and contextual influences are converted into entrepreneurial intention. Sharma and Jamwal [11] found that hospitality and tourism students' perceptions of entrepreneurship-education effectiveness significantly influenced both entrepreneurial self-efficacy and entrepreneurial intention. Their two-wave analysis further showed that self-efficacy predicted

entrepreneurial intention and mediated the relationship between education and intention. Luong and Lee [12] similarly reported that entrepreneurial self-efficacy and entrepreneurial desires directly influenced intention, while self-efficacy partially mediated the effect of entrepreneurial desires. Their findings also showed that entrepreneurial role models predicted students' self-efficacy and entrepreneurial desires. Among Malaysian hospitality and tourism students, entrepreneurial intention was positively influenced by self-efficacy and attitude towards entrepreneurship, whereas subjective norms were not significant [5]. Extending this evidence, Nguyen [13] found that entrepreneurial self-efficacy and opportunity cognition formed significant mediating mechanisms between RCEP awareness and entrepreneurial intention among Vietnamese tourism students. Collectively, these studies position entrepreneurial self-efficacy as a central cognitive pathway connecting education, motivation, role models, and institutional awareness with entrepreneurial intention. This argument is consistent with Ishak *et al.*, [8], who demonstrated that entrepreneurial cognition strengthened entrepreneurial intention primarily through entrepreneurial attitude and perceived behavioural control, highlighting that internal psychological mechanisms are more influential than external social pressure in shaping entrepreneurial intention among university students.

Another psychological construct that has received increasing attention in hospitality and tourism education is psychological resilience, particularly in relation to students' career development and well-being during periods of uncertainty. Rivera *et al.*, [14] reported that hope was an important driver of resilience and life satisfaction among hospitality students during the COVID-19 pandemic, while resilience contributed to life satisfaction through both individual and community resilience. Their findings also highlighted the potential influence of resilience on future job pursuit and career attraction. Üngüren and Kaçmaz [15] similarly found that psychological resilience reduced tourism students' career anxiety arising from perceived infection risk and fear of COVID-19. Furthermore, Mensah *et al.*, [16] reported that resilience weakened the adverse influence of academic stress on career intention and enhanced students' well-being. In contrast, Amissah *et al.* [9] found that academic resilience positively influenced psychological well-being and career aspirations, with psychological well-being subsequently associated with stronger career intentions. Overall, these studies indicate that psychological resilience supports hospitality and tourism students in maintaining positive career orientations and psychological well-being when confronted with academic and industry-related challenges.

Taken together, the existing literature suggests that entrepreneurship development among hospitality and tourism students has evolved along two closely related yet distinct research streams. The first stream predominantly investigates how entrepreneurship education, university entrepreneurial climates, and entrepreneurship-related learning experiences contribute to entrepreneurial intention through educational and cognitive mechanisms. Zhang *et al.*, [2] identified empirical training as an important contributor to entrepreneurial intention, while Sharma and Jamwal [11], Mustafa *et al.*, [17], and Majid *et al.*, [4] consistently reported that entrepreneurial education and entrepreneurial self-efficacy represent important mechanisms through which hospitality education strengthens entrepreneurial intention. Similarly, Ishak *et al.*, [8] demonstrated that entrepreneurial cognition contributes to entrepreneurial intention indirectly through entrepreneurial attitude and perceived behavioural control, emphasising the importance of internal psychological mechanisms in entrepreneurial decision-making. The second stream has focused on students' psychological adaptation to academic and career challenges, with resilience associated with life satisfaction, career development, and reduced career anxiety during periods of uncertainty [14, 15]. Taken together, these studies demonstrate that both educational contexts and personal

psychological resources influence entrepreneurial development. However, the reviewed literature has generally investigated these perspectives as separate lines of inquiry.

Although entrepreneurship education, entrepreneurial self-efficacy, entrepreneurial cognition, and psychological resilience have each received growing scholarly attention, existing studies have generally investigated these constructs independently. For example, recent hospitality research has primarily examined entrepreneurship education and entrepreneurial intention [4]. In contrast, entrepreneurial cognition has been investigated from a Theory of Planned Behaviour perspective [8], with limited integration of psychological resilience within these entrepreneurship-related cognitive mechanisms. Research on entrepreneurial self-efficacy has predominantly focused on explaining entrepreneurial intention through educational, motivational, institutional, and cognitive perspectives [5,11-13], whereas resilience research has primarily examined students' psychological well-being, career aspirations, professional identification, career anxiety, and career adaptation during periods of uncertainty [9,14,15,18]. Recent work has also incorporated resilience and general self-efficacy within broader psychological capital models [10]. Yet, entrepreneurial self-efficacy has not been examined within this broader psychological framework. Consequently, the intellectual relationship between psychological resilience and entrepreneurial self-efficacy remains insufficiently synthesised within the reviewed hospitality and tourism literature. Given the growing volume and diversity of research in this field, a bibliometric review provides an appropriate approach for systematically mapping the literature's intellectual structure, identifying influential knowledge domains and thematic developments, and highlighting future research directions. Accordingly, this study aims to analyse the intellectual landscape of research on psychological resilience and entrepreneurial self-efficacy among hospitality and tourism students and graduates, while proposing a future research agenda to guide subsequent empirical investigations.

2. Methodology

2.1 Research Design

This study employed a bibliometric review to systematically examine the intellectual landscape of research on psychological resilience and entrepreneurial self-efficacy among hospitality and tourism students and graduates. Bibliometric analysis provides a quantitative and objective approach for evaluating publication trends, influential contributors, collaborative patterns, and thematic development within a research field [19,20]. The bibliometric analyses were conducted using the Bibliometrix package and its Biblioshiny interface in R.

2.2 Data Source

The bibliographic data were retrieved exclusively from the Web of Science Core Collection (WoSCC), which is widely recognised as a comprehensive and reliable source of high-quality scholarly publications for bibliometric research [20]. The database was searched on 30 July 2026, ensuring a consistent dataset for analysis. Following the predefined search criteria, a total of 144 records comprising journal articles and review papers published in English were identified for subsequent screening and bibliometric analysis.

2.3 Search Strategy

A structured search strategy was developed using the Topic Search (TS) function in the Web of Science Core Collection (WoSCC) to maximise the retrieval of relevant publications. Two

complementary search streams were employed to capture the principal domains of this review: (i) psychological resilience and (ii) entrepreneurial self-efficacy among hospitality and tourism students and graduates. Each search stream combined population-related terms with construct-specific keywords using Boolean operators. The search was restricted to English-language journal articles and review papers indexed in WoSCC. The complete search queries used for both streams are presented in Table 1, ensuring transparency and facilitating the reproducibility of the search process.

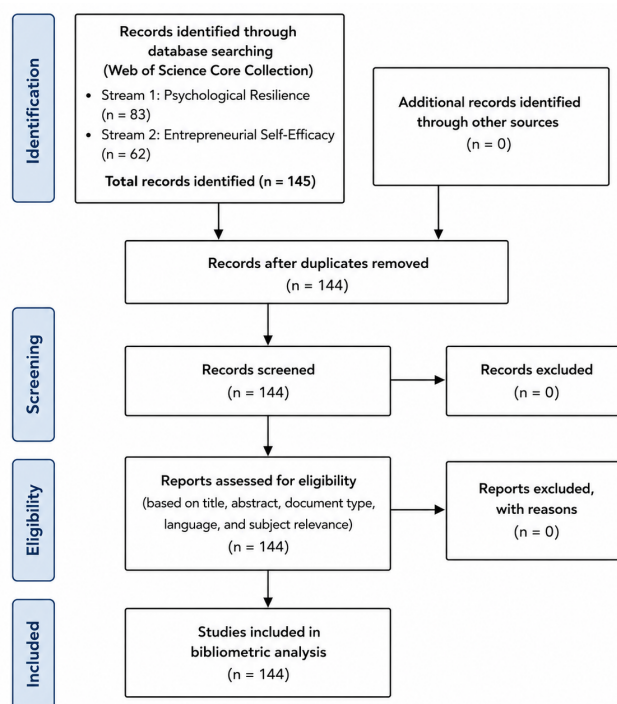
Table 1

Topic search strategy for the two bibliometric search streams

Search Stream	Topic Search (TS) Query
Stream 1: Psychological Resilience	TS=(("hospitality student*" OR "hospitality graduate*" OR "tourism student*" OR "tourism graduate*" OR "hotel management student*" OR "hospitality management student*" OR "hospitality education" OR "tourism education") AND ("psychological resilience" OR resilien* OR "psychological capital" OR adaptability OR coping OR "career resilience"))
Stream 2: Entrepreneurial Self-Efficacy	TS=(("hospitality student*" OR "hospitality graduate*" OR "tourism student*" OR "tourism graduate*" OR "hotel management student*" OR "hospitality management student*" OR "hospitality education" OR "tourism education") AND ("entrepreneurial self-efficacy" OR "entrepreneurial self-efficacy" OR "entrepreneurship education" OR "entrepreneurial intention*" OR "entrepreneurial competenc*" OR "entrepreneurial mindset" OR "entrepreneurial readiness"))

2.4 PRISMA Selection Process

The literature identification and selection process followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines to ensure transparency and reproducibility in the retrieval and screening of publications [21]. As illustrated in Figure 1, records identified from the two predefined Web of Science Core Collection search streams were combined and examined for duplicate entries before screening.



Note. The literature selection process followed the PRISMA 2020 framework (Page et al., 2021). Records were retrieved exclusively from the Web of Science Core Collection.

Fig. 1. PRISMA 2020 flow diagram of the literature identification and selection process

The remaining records were assessed against the predefined inclusion criteria, including publication type (journal articles and review papers), language (English), and relevance to psychological resilience or entrepreneurial self-efficacy among hospitality and tourism students and graduates. Because the search strategy incorporated these eligibility restrictions during retrieval, all records remaining after duplicate removal satisfied the inclusion criteria and were retained for the bibliometric analysis. The final dataset comprised 144 publications, which formed the basis for the subsequent performance analysis and science mapping.

2.5 Bibliometric Procedures

The bibliometric analysis was conducted using the Bibliometrix package in R, accessed through the Biblioshiny interface. The analysis consisted of two complementary components: performance analysis and science mapping. Performance analysis was first conducted to describe the productivity and impact of the literature. The indicators examined included annual scientific production, most relevant authors, most relevant sources, country scientific production, most cited countries, and most frequent keywords. These indicators provided an overview of publication growth, scholarly contribution, geographical distribution, citation impact, and the principal topics represented within the dataset.

Science mapping was subsequently performed to examine the intellectual and conceptual structure of the literature. The analyses included keyword co-occurrence, thematic mapping, thematic evolution, and conceptual structure analysis using Multiple Correspondence Analysis (MCA). Keyword co-occurrence analysis was used to identify relationships among frequently occurring concepts, while thematic mapping classified research themes according to centrality and density. Thematic evolution analysis examined changes in major themes across different periods, whereas MCA was used to identify conceptual proximities among keywords and reveal broader thematic clusters. Together, these analyses provided a structured overview of the development, thematic organisation, and conceptual relationships within research on psychological resilience and entrepreneurial self-efficacy among hospitality and tourism students and graduates.

3. Results

3.1 Publication Performance

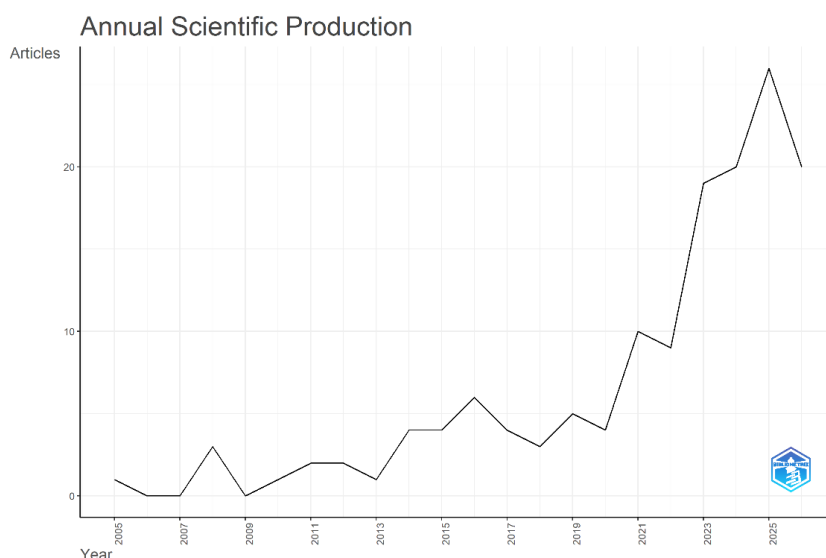


Fig. 2. Annual scientific production

Figure 2 illustrates the annual scientific production on psychological resilience and entrepreneurial self-efficacy among hospitality and tourism students and graduates between 2005 and 2026. Publication output remained relatively limited during the early stage of the study period, with only sporadic articles published between 2005 and 2013. A gradual increase in annual publications was observed from 2014 to 2020, followed by a marked acceleration after 2021. The highest annual scientific production was recorded in 2025 with 26 publications, before declining slightly to 20 publications in 2026. Overall, the publication trend demonstrates sustained growth in research output across the study period (Figure 2).

The distribution of publications across academic journals is presented in Table 2. The Journal of Hospitality & Tourism Education was identified as the most productive publication source with 19 articles, followed by the Journal of Hospitality, Leisure, Sport & Tourism Education (16 articles) and the Journal of Teaching in Travel & Tourism (12 articles). Sustainability contributed 6 articles, while the Journal of Hospitality and Tourism Management and Worldwide Hospitality and Tourism Themes each published 4 articles. The remaining journals within the top ten each contributed 2 articles, indicating that research output was concentrated in a relatively small number of hospitality, tourism, and education-related journals.

Table 2

Top 10 most productive publication sources

Rank	Publication Source	Documents
1	Journal of Hospitality & Tourism Education	19
2	Journal of Hospitality, Leisure, Sport & Tourism Education	16
3	Journal of Teaching in Travel & Tourism	12
4	Sustainability	6
5	Journal of Hospitality and Tourism Management	4
6	Worldwide Hospitality and Tourism Themes	4
7	Anatolia – International Journal of Tourism and Hospitality Research	2
8	Current Issues in Tourism	2
9	Education and Training	2
10	International Journal of Advanced and Applied Sciences	2

Table 3 presents the most productive authors within the dataset. Altinay L., Choy M.W., Tavitiyaman P., and Yeung A.S. each authored three publications, representing the highest publication output among individual researchers. The remaining authors within the top ten including Afful B.E.B., Butkouskaya V., Chuang N.K., Daniele R., De Arroyabe J.C.F., and Galon D.I.—each contributed two publications. These findings indicate that publication productivity is distributed across several researchers rather than concentrated among a small group of highly prolific authors.

Table 3

Top 10 most productive authors

Rank	Author	Documents
1	Altinay L.	3
2	Choy M.W.	3
3	Tavitiyaman P.	3
4	Yeung A.S.	3
5	Afful B.E.B.	2
6	Butkouskaya V.	2
7	Chuang N.K.	2
8	Daniele R.	2

Table 3 (Continued)

Rank	Author	Documents
9	De Arroyabe J.C.F.	2
10	Galon D.I.	2

The geographical distribution of scientific production is illustrated in Figure 3, while the corresponding citation performance is summarised in Table 4. The map demonstrates that research has been conducted across multiple regions worldwide, with notable publication activity concentrated in Asia, Europe, North America, and Oceania. Based on citation performance, India recorded the highest number of citations (532), followed by Australia (399), China (309), Turkey (206), and the United Kingdom (191). Other countries within the top ten included the United States (103), Spain (89), Portugal (87), Italy (63), and Egypt (55). Collectively, these findings demonstrate the international development of research on psychological resilience and entrepreneurial self-efficacy within hospitality and tourism education. The publication performance provides an overview of the field's development. The following section examines the conceptual relationships among the dominant research topics using keyword co-occurrence analysis.

Table 4
Top 10 most cited countries

Rank	Country	Total Citations
1	India	532
2	Australia	399
3	China	309
4	Turkey	206
5	United Kingdom	191
6	United States	103
7	Spain	89
8	Portugal	87
9	Italy	63
10	Egypt	55

Country Scientific Production

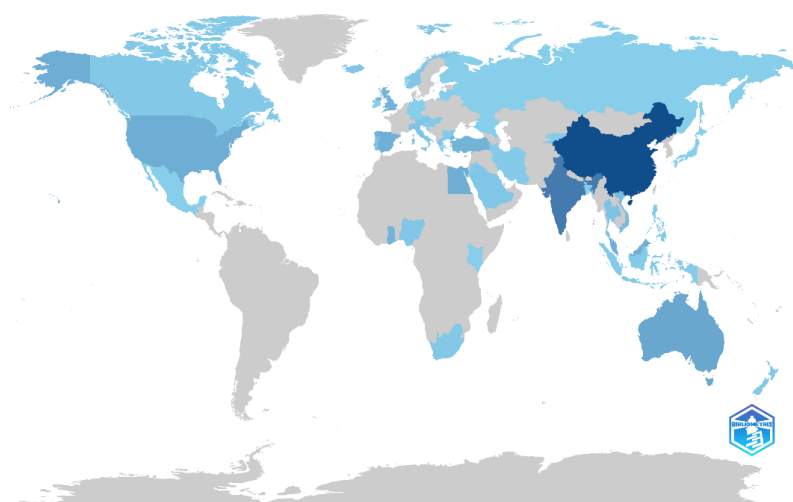


Fig. 3. Country scientific production

3.2 Knowledge Structure

The co-occurrence relationships among the most frequently occurring author keywords are presented in Figure 4, while the frequency of the dominant keywords is summarised in Table 5. The keyword co-occurrence network demonstrates that the literature is organised around several interconnected topics, with education, entrepreneurial intention, entrepreneurship education, tourism, hospitality, tourism education, self-efficacy, and resilience appearing as the most prominent keywords. Multiple connections among these keywords indicate frequent co-occurrence within the retrieved publications.

Table 5
Top 10 most frequent keywords

Rank	Keyword	Occurrences
1	Education	35
2	Hospitality	22
3	Impact	22
4	Entrepreneurial intention	21
5	Tourism	19
6	Entrepreneurship education	16
7	Self-efficacy	16
8	Attitudes	15
9	Tourism education	15
10	Models	14

As presented in Table 5, education was the most frequently occurring keyword with 35 occurrences, followed by hospitality and impact, each appearing 22 times. Entrepreneurial intention ranked fourth with 21 occurrences, while tourism appeared 19 times. Entrepreneurship education and self-efficacy each recorded 16 occurrences, followed by attitudes and tourism education, both with 15 occurrences. Models completed the ten most frequent keywords with 14 occurrences.

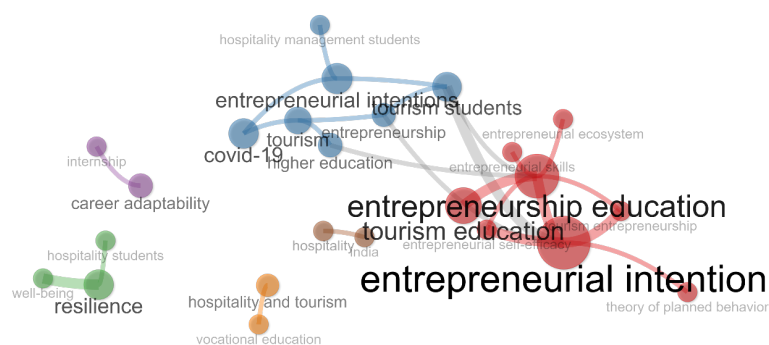


Fig. 4. Keyword co-occurrence network

Figure 4 further shows that entrepreneurial intention, entrepreneurship education, self-efficacy, tourism education, hospitality, and resilience are connected through multiple co-occurrence relationships within the network. These interconnected keywords represent the principal topics addressed in the retrieved publications. The broader conceptual organisation and thematic relationships among these topics are examined in the following section using Multiple Correspondence Analysis and thematic mapping.

3.3 Conceptual Structure

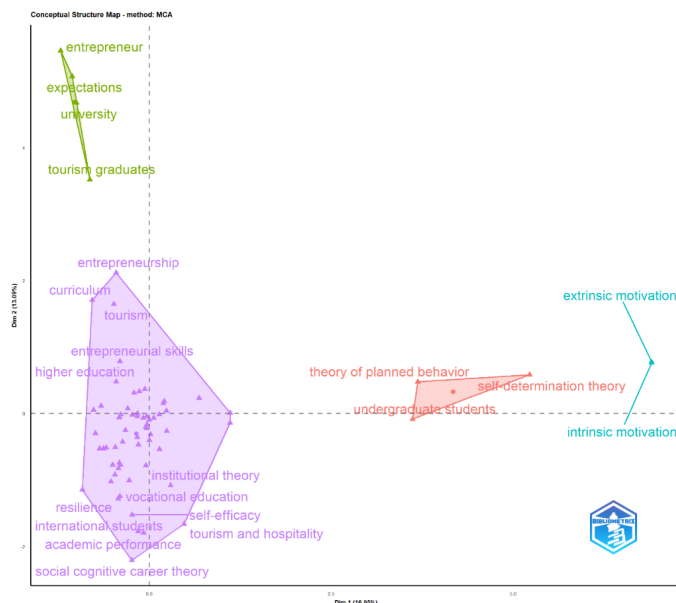


Fig. 5. Factorial map

The conceptual structure of the literature was examined using Multiple Correspondence Analysis (MCA), while the maturity and importance of research themes were evaluated using a thematic map. As illustrated in Figure 5, the conceptual structure is organised into four distinct keyword clusters, indicating that research on psychological resilience and entrepreneurial self-efficacy has developed through several interconnected but distinguishable thematic domains.

The largest conceptual cluster centres on entrepreneurship, higher education, tourism and hospitality, curriculum, self-efficacy, and resilience, demonstrating close conceptual associations among these keywords within the retrieved literature. A second cluster groups theory of planned behaviour, self-determination theory, entrepreneurial intention, and undergraduate students, reflecting another coherent conceptual grouping. A third cluster comprises entrepreneur, expectations, tourism graduates, and university, while a smaller cluster is centred on intrinsic motivation and extrinsic motivation. Together, these clusters illustrate the multidimensional conceptual organisation of the research field.

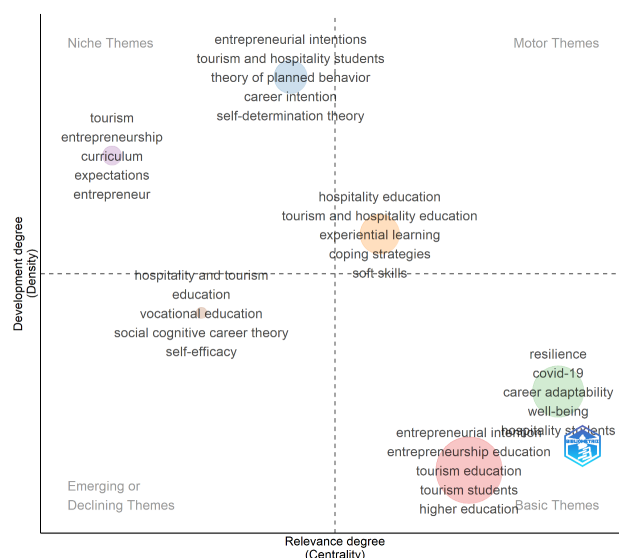


Fig. 6. Thematic map

The thematic distribution of the literature is presented in Figure 6. The map classifies the identified themes by their centrality and development, resulting in four thematic quadrants. The Motor Themes quadrant contains well-developed and central research themes, whereas the Basic Themes quadrant includes themes that are fundamental to the research field but remain comparatively less developed. The Niche Themes quadrant consists of specialised topics with relatively high internal development but lower centrality. In contrast, the Emerging or Declining Themes quadrant includes topics characterised by comparatively lower levels of both development and centrality.

Within the thematic map, entrepreneurial intention, entrepreneurship education, tourism education, higher education, resilience, and career adaptability are distributed across different thematic quadrants, indicating variation in their relative maturity and interconnectedness within the literature. Collectively, the conceptual structure map and thematic map demonstrate that the research field encompasses multiple conceptual domains that differ in both their internal development and their position within the overall intellectual landscape. The temporal development of these conceptual themes is further examined through thematic evolution analysis.

3.4 Thematic Evolution

The evolution of research themes over time is illustrated in Figure 7, which presents the thematic development of the literature across four chronological periods: 2005–2014, 2015–2020, 2021–2025, and 2026. The figure demonstrates the continuity and expansion of research topics throughout the study period by illustrating the relationships between themes across successive time intervals.

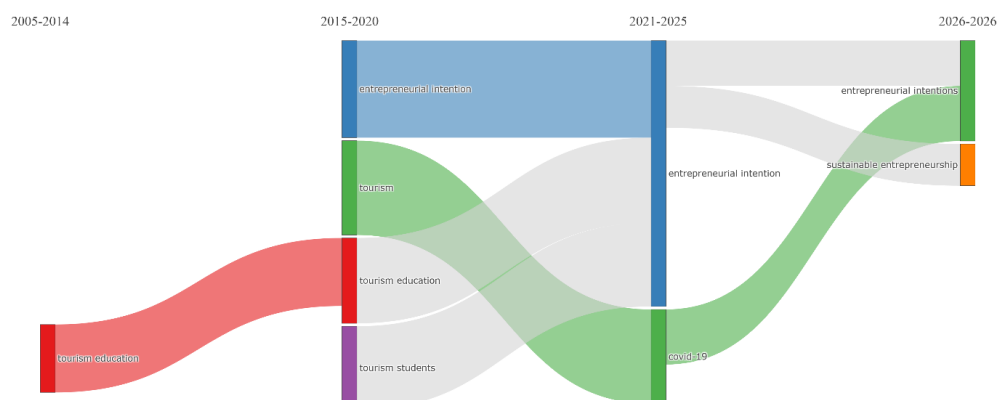


Fig. 7. Thematic evolution of research on psychological resilience and entrepreneurial self-efficacy in hospitality and tourism education (2005–2026)

During the 2005–2014 period, tourism education represented the principal research theme identified within the literature. In the subsequent period (2015–2020), the thematic structure expanded to include tourism, tourism education, tourism students, and entrepreneurial intention, indicating a broader thematic coverage than in the earlier period. The thematic links shown in the figure demonstrate continuity between these research topics across the two periods.

For the 2021–2025 period, the thematic evolution highlights entrepreneurial intention and COVID-19 as prominent research themes. In the most recent period (2026), the literature includes entrepreneurial intentions and sustainable entrepreneurship, with the connecting pathways

indicating their relationships with themes identified in earlier periods. Overall, the thematic evolution demonstrates that the literature has progressively diversified over time while maintaining continuity among several core research themes.

Table 6

Summary of bibliometric evidence supporting the discussion

Bibliometric Aspect	Evidence	Principal Finding
Publication growth	Figure 2	Annual scientific production increased substantially after 2021, reaching its highest output in 2025.
Publication sources	Table 2	Hospitality and tourism education journals published the largest number of documents.
Author productivity	Table 3	Publication output is distributed across multiple authors, with no single dominant contributor.
Geographical distribution	Figure 3 & Table 4	Research demonstrates broad international participation, while citation impact varies across countries.
Keyword structure	Figure 4 & Table 5	Education, entrepreneurial intention, entrepreneurship education, tourism, hospitality, self-efficacy, and resilience constitute the dominant knowledge structure.
Conceptual structure	Figure 5 & Figure 6	The literature comprises several conceptual clusters and thematic domains with different levels of development and centrality.
Thematic evolution	Figure 7	Research themes evolved from tourism education towards entrepreneurial intention, COVID-19, and sustainable entrepreneurship.

4. Discussion

4.1 Entrepreneurship Education as the Dominant Research Theme

The bibliometric findings identify entrepreneurship education as a dominant research theme in studies of psychological resilience and entrepreneurial self-efficacy among hospitality and tourism students and graduates. Its prominence within the keyword co-occurrence network and conceptual structure indicates that entrepreneurship education provides an important context for examining entrepreneurial competencies and graduate preparedness. The literature consistently associates entrepreneurship education with the development of knowledge, skills, and attributes required for entrepreneurial careers within the hospitality and tourism sector.

This interpretation is supported by the representative studies included in the analysed dataset. Daniel *et al.*, [22] emphasised that tourism education should strengthen entrepreneurial skills to prepare graduates for the changing demands of the tourism industry. Likewise, Ntshangase and Ezeudji [1] reported that entrepreneurship education significantly enhanced tourism students' entrepreneurial intention, entrepreneurial feasibility, employability, self-employment, and entrepreneurial self-efficacy. Zeynalov and Doğantan [23] further demonstrated that entrepreneurship education, together with digital literacy and personal innovativeness, positively influenced digital entrepreneurial intention among tourism students. These representative studies therefore explain why entrepreneurship education emerged as one of the dominant themes identified in the present bibliometric analysis.

4.2 Entrepreneurial Self-Efficacy as a Core Research Theme

The bibliometric analysis identifies entrepreneurial self-efficacy as a core research theme within hospitality and tourism entrepreneurship literature. Its close association with entrepreneurship

education, entrepreneurial intention, and tourism education in the keyword co-occurrence network and conceptual structure indicates that entrepreneurial self-efficacy is consistently examined as an important psychological mechanism underpinning students' entrepreneurial development. This prominence reflects growing scholarly interest in understanding how confidence in entrepreneurial capability influences students' readiness to pursue entrepreneurial careers.

The representative studies included in the analysed dataset reinforce this interpretation. Sharma and Jamwal [11] reported that entrepreneurship education enhanced entrepreneurial self-efficacy, which subsequently mediated the relationship between entrepreneurship education and entrepreneurial intention. Similarly, Luong and Lee [12] found that entrepreneurial self-efficacy directly influenced entrepreneurial intention while partially mediating the effect of entrepreneurial desires, with entrepreneurial role models strengthening students' entrepreneurial confidence. Among Malaysian hospitality and tourism students, Al-Jubari *et al.*, [5] identified entrepreneurial self-efficacy as a significant predictor of entrepreneurial intention. Likewise, Nguyen [13] demonstrated that entrepreneurial self-efficacy mediated the influence of a supportive entrepreneurial environment on entrepreneurial intention among tourism students. Collectively, these studies explain why entrepreneurial self-efficacy occupies a central position within the present bibliometric knowledge structure.

4.3 The Emerging Importance of Psychological Resilience

The bibliometric analysis indicates that psychological resilience has emerged as an increasingly important research theme within hospitality and tourism education. Its presence across the keyword co-occurrence network, conceptual structure, and thematic evolution analysis suggests growing scholarly attention to the psychological resources that enable students and graduates to adapt to academic, professional, and industry-related challenges. This trend reflects an expansion of the research focus from entrepreneurial competencies towards broader psychological preparedness for career development.

The representative studies included in the analysed dataset support this interpretation. Rivera *et al.*, [14] found that resilience contributed positively to hospitality students' life satisfaction and future career attraction through both individual and community resilience. Üngüren and Kaçmaz [15] similarly reported that psychological resilience reduced tourism students' career anxiety associated with perceived infection risk during the COVID-19 pandemic. More recently, Mensah *et al.*, [16] demonstrated that resilience mitigated the negative effects of academic stress on career intention while enhancing students' well-being. In contrast, Amissah *et al.*, [9] identified academic resilience as an important contributor to psychological well-being and career aspirations. Düzgün [18] further showed that psychological resilience reduced technostress and strengthened occupational identification among tourism students. Collectively, these findings explain the increasing prominence of psychological resilience within the present bibliometric analysis and indicate that psychological preparedness has become an increasingly important dimension of hospitality and tourism education research.

4.4 Future Direction of Hospitality and Tourism Entrepreneurship Research

The bibliometric findings suggest that hospitality and tourism entrepreneurship research is progressively broadening its scope beyond traditional entrepreneurship education towards emerging themes associated with digital capability, sustainability, and psychological preparedness. The thematic evolution analysis indicates that recent studies have increasingly incorporated concepts

such as digital entrepreneurship, sustainable entrepreneurship, and psychological resilience, reflecting the diversification of research interests within hospitality and tourism education.

The representative studies included in the analysed dataset support this emerging direction. Zeynalov and Doğantan [23] demonstrated that entrepreneurship education, digital literacy, and personal innovativeness positively influenced digital entrepreneurial intention among tourism students, highlighting the growing relevance of digital competencies in entrepreneurship education. Alakaleek *et al.*, [24] similarly reported that entrepreneurial education and societal influences contributed to sustainable entrepreneurial intention among hospitality and tourism students, extending entrepreneurship research towards sustainability-related outcomes. These emerging themes complement recent resilience studies, which increasingly emphasise students' adaptability, well-being, and career preparedness in response to changing educational and professional environments. Collectively, the bibliometric findings suggest that future research may further integrate entrepreneurial competencies with digital capability, sustainability, and psychological resilience, thereby broadening the scope of hospitality and tourism entrepreneurship research.

5. Future Research Agenda

5.1 Integrating Entrepreneurial Self-Efficacy and Psychological Resilience

The bibliometric analysis indicates that entrepreneurial self-efficacy and psychological resilience have emerged as two prominent research themes within hospitality and tourism education. However, these constructs are generally examined independently despite their shared emphasis on students' entrepreneurial capability and adaptability. Future research should integrate these psychological constructs within a unified framework to provide a more comprehensive understanding of entrepreneurial development and career preparedness among hospitality and tourism students and graduates.

5.2 Advancing Digital and Sustainable Entrepreneurship

The thematic evolution analysis highlights digital entrepreneurship and sustainable entrepreneurship as emerging areas of research. Future studies should investigate how these themes can be incorporated into entrepreneurship education by examining their relationships with entrepreneurial competencies, entrepreneurial intention, and graduate readiness. Such efforts would contribute to developing educational approaches that better reflect the changing needs of the hospitality and tourism sector.

5.3 Strengthening Research Design and Context

The present bibliometric review also suggests opportunities to strengthen future research through more diverse research designs and contexts. Future studies should extend beyond single-country, cross-sectional investigations by adopting longitudinal, comparative, and mixed-method approaches. Expanding research across different educational systems and cultural settings would provide a broader understanding of entrepreneurship education and its contribution to developing entrepreneurial graduates within the hospitality and tourism industry.

6. Conclusion

This study systematically mapped the intellectual landscape of research on psychological resilience and entrepreneurial self-efficacy among hospitality and tourism students and graduates using a bibliometric analysis of 144 publications indexed in the Web of Science Core Collection. The findings demonstrate a sustained growth in scholarly interest, particularly after 2021, reflecting the increasing importance of entrepreneurship within hospitality and tourism education. Entrepreneurship education emerged as the dominant research theme, while entrepreneurial self-efficacy occupied a central position in the knowledge structure. In contrast, psychological resilience has developed as an emerging research theme, indicating a growing emphasis on students' psychological preparedness alongside entrepreneurial competency development.

The study contributes by providing a comprehensive overview of the evolution, conceptual structure, and future direction of this research field. The findings offer valuable insights for researchers seeking to advance entrepreneurship scholarship, for educators aiming to strengthen hospitality and tourism curricula, and for higher education institutions seeking to develop graduates who are entrepreneurial, resilient, and adaptable. As hospitality and tourism continue to evolve in response to technological, economic, and societal change, integrating entrepreneurial competencies with psychological resilience will remain essential for preparing graduates capable of sustaining successful and adaptable careers in an increasingly dynamic industry.

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