Review

Digital Entrepreneurship and Creative Industries in Tourism: A Research Agenda

Nikolaos Varotsis

Department of Tourism, Ionian University, Building “Calypso”, P. Vraila Armeni 4, 491 00 Corfu, Greece; nvarotsis@ionio.gr

Abstract: Recently, digital entrepreneurship and creative industries in tourism have been emerging strongly, possibly as a result of the global pandemic of the last two years. Their growth in the last decade has been due to the penetration of technology into the daily life of the tourist and the desire for tours that combine intangible value and a differentiated experience. This paper presents the findings of a research agenda that aims to identify key factors and research dimensions in the adoption of digital entrepreneurship and the creative industries in tourism. The study includes a critical analysis based on a literature review through a filtered search method of statistical information from 20 relevant scientific publications listed in the Scopus and Google Scholar databases. Additionally, this research addresses research gaps and recommends directions for future research. Finally, the conclusions are presented.

Keywords: digital entrepreneurship; creative industries; tourism; creative entrepreneurship; research agenda

1. Introduction

The creative industry and digital entrepreneurship are part of the tourism industry and have been growing in momentum over the last decade (Jelincic 2021). Climate change (Pang et al. 2013), the growing awareness of environmental issues (Kilipiris and Zardava 2012), the need for more sustainable tourism development (Torres-Delgado and Saarinen 2014), the growing demands for high-quality tourism services (Butnaru and Miller 2012; Garrigos-Simon et al. 2019; Varotsis 2019), and increased competition in the tourism market have contributed to the strengthening of new forms of digital entrepreneurship and creative industries in tourism.

The recent, rapid development of digital technologies—in part as a result of the COVID-19 pandemic—such as big data and analytics, the internet of things, mobile devices, social media, artificial intelligence, blockchain, and cloud computing (Rusch et al. 2022), have caused new entrepreneurs with a focus on new business opportunities to innovate in digital entrepreneurship. Moreover, the creative and cultural industries (Cooke and De Propris 2011) include activities related to architecture, cultural heritage, artistic crafts, audiovisual media, archives, libraries, visual arts, publishing festivals, music creation, and radio (Boix-Domenech and Rausell-Köster 2018), and are now considered a key driver of economic growth, recently attracting innovative entrepreneurs.

As a result, the rapid spread of digital technologies has accelerated the growth of cultural and creative industries (CCIs) in technology-dominated sectors, attracting entrepreneurs who are innovating by investing in digital entrepreneurship. The development of digital entrepreneurship in creative industries is an attractive sector of innovation, as it achieves high digital accessibility and required low investment costs and focuses on empowering value creation (Tomczak and Stachowiak 2015). After all, both managerial and business skills are now predictors of entrepreneurial innovation (Tsokakidis et al. 2020).

This aim of this paper is to review the literature on digital entrepreneurship and the creative industries in tourism as well as to provide a guide to key topics, contexts, methods,
findings, and dimensions in related research. Furthermore, this paper aims to highlight the latest research findings on the effects of digital entrepreneurship and the CCIs in tourism. Finally, opportunities for further research by tourism researchers are presented. This paper presents a critical review of current research and key factors in digital entrepreneurship and the creative industries in tourism (Ngoasong 2018; Meyer et al. 2022).

Understanding the importance of digital entrepreneurship and the creative industries in tourism is the subject of this research. This is achieved by three different methods: first, by recording the findings and conclusions from research on digital entrepreneurship and the creative industries in tourism; second, by identifying and discussing the three dimensions (economic, socio-psychological, and other dimensions) of tourism; and third, by identifying six key factors that outline the research agenda of the present study.

The conceptual and theoretical backgrounds of digital entrepreneurship, the creative industries, and creative entrepreneurship are first presented. Then, the research dimensions are analyzed by creating a distinction between economic, socio-psychological, and other (technological, sustainable, etc.) dimensions. The next section describes the methodology used for the literature analysis, followed by the results, which describe in detail the findings and dimensions of the main research work in digital entrepreneurship and the creative industries in tourism. The Discussion section outlines the research agenda with six factors based on the conclusions from the analyzed research work and describes research gaps and suggestions for future research. The paper concludes by making final remarks on the research agenda.

2. Theoretical Background

This section presents the conceptual framework for digital entrepreneurship, the creative industries, and creative entrepreneurship used in the research agenda development methodology. The concepts listed below describe the keyword search criteria underlying this research and highlight the intersections of digital entrepreneurship, the cultural industries (Leung and Feldman 2021), and the creative industries in the field of tourism.

2.1. Digital Entrepreneurship

Entrepreneurship is the dynamic process of creating value (Gartner 1990; Huarng and Yu 2011) by taking risks aimed at financial and self-fulfilling gratification. Entrepreneurship is a broad term that includes elements of innovation, management, risk-taking, enterprise decision-making, perseverance, and perspicacity in the face of new economic prospects (Weiermair et al. 2006). In addition, the personality of the entrepreneur exhibits special characteristics, such as the need for achievement, autonomy, creation, vision, foresight, and positive thinking (García-Tabuenca et al. 2011).

In the network economy, entrepreneurship characterizes both the neo-active and established companies of the sector. The highly competitive environment of the online economy is forcing both start-ups and established organizations to innovate to succeed in efficiency. Digital entrepreneurship includes all the activities involved in developing a venture that generates revenue from digital and technological means through electronic networks. The digital entrepreneur is involved in any kind of business that uses digital technologies for either commercial or social and governmental purposes (Williamson et al. 2019).

Digital entrepreneurship is often identified by technological innovation flexibility (Kanovska and Bumberova 2021), which involves the transformation of new ideas, inventions, and business processes into market value. It involves transforming a good idea into an innovative idea that creates value in the digital market. Innovative digital entrepreneurs are forced to venture into a highly competitive digital business environment where their inventions—the products they offer to the market—are exposed via the internet to countless other ambitious digital entrepreneurs (Endres et al. 2022). The success of a digital entrepreneur is related to their ability to continuously and successfully update their digital product.
2.2. Creative Industries

Creative industries combine high-value-added services with the supply of industrial products to the market. They incorporate all the activities that stand out in a creative process (Cunningham 2002). A common factor in the activities of the creative industries is creativity, in the sense of providing an innovative solution or an innovation based on a concept of its creator. In the creative industries, creativity brings forth new ideas while innovation transforms them and implements them into creative ideas (Amabile 1988).

According to the definition of the term, as developed for the British economy, the creative industries bring together a number of areas that may not be related to each other, including advertising and marketing, architecture, design, designer fashion, art and antiques, performing and visual arts, publishing, crafts, software, leisure software, museums, galleries, libraries, education, film, video, photography, music, television, and radio (Foord 2009). It is the economy of experience where the consumption of creative goods and services is combined with the intangible added value that accompanies it.

The creative activities related to the creative industries focus on human individual creativity that aims to create knowledge and innovation. The institutional framework of the creative industries includes all the managerial skills and individual creations that achieve value and job creation through the exploitation of intellectual property and individual creativity (Bilton and Leary 2002). In addition, the creative industries integrate individual creativity into the cultural industry, the creative industry, and the orange economy. The orange economy includes all the necessary activities for an idea to be transformed into a product for the market.

The creative industries are often identified with the cultural industries, which are one of the creative subsectors. The cultural industries focus on cultural tourism, cultural heritage, and the activity sectors of museums and libraries, cultural and sporting activities, and activities that emit a way of life, promoting mainly cultural and social value. Human creativity is the common source of the creation of goods and services in the so-called cultural and creative industry (CCI) (Chuluunbaatar et al. 2014).

2.3. Creative Tourism

The modern, highly competitive tourism market requires the provision of services characterized by creativity and innovation to meet the growing demands of tourists. The COVID-19 pandemic has highlighted the need for innovations that maintain or increase tourist satisfaction with tourism services (Bavik and Kuo 2022). Tourism is based on the interactivity of the provider (producer of tourism services) and receiver (tourist); therefore, the satisfaction of the latter depends on the human relationships that develop during the provision of the tourism services. A creative provider of unique and innovative tourism services has a competitive advantage in the intensely competitive tourism industry (Prima Lita et al. 2020).

Tourism is related to the tourist experience that is reflected in the knowledge and stimuli gained during a tour. A unique, unforgettable experience by the tourist is related to the series of goods and services that a tourist receives at a specific place and time, and under their personal conditions of perception. In cultural tourism, the experience is gained from the sense of interaction with another culture (Smith 2015). The uniqueness of an experience requires more than the sum of standardized tourist goods and services. It can be achieved both by the uniqueness of the human relationships that govern the tourism service and by a co-creation of the tourist experience that leads to a cognitive transformation (Jiang et al. 2021). The latter excels when compared to a declining, simple remembrance.

Creative tourism, as opposed to mass tourism provided through a standard tourist product, is a result of co-creation by the host and the tourist that aims to customize authentic unique experiences. In tourism, creativity appears in all four key areas (4Ps) of a creative person, creative process, creative product, and creative press (environment) (Hornig et al. 2015). Tourism creativity is achieved with the participation of the creative person and the utilization of the creative process in the design of creative activities (masterclasses) through.
the use of creative environments (creative clusters) that form a creative tourist product (tourist attraction) for the creative class (Florida 2012). The tourist attraction can take the form of a visit to an archeological site, a gallery, a concert, a ceremonial event, a theatrical performance, etc.

2.4. Creative Entrepreneurship

In recent decades, a trend has developed towards the creative knowledge economy, which is based on the information society and goes beyond the traditional model of standard product reproduction. If the creative industries combine the creation, production, and supply of creative products for the market, creative entrepreneurship is the process of commercializing creative products through their launch by an enterprise operating in the creative industry (Muller et al. 2009). The creative entrepreneur combines entrepreneurial ability and creative talent to exploit business opportunities in the creative industry.

Moreover, entrepreneurs in the creative economy have emerged who, using individual creativity and personal instinct, have transformed creative ideas into profitable products in the market (Gouvea et al. 2021). They are entrepreneurs with special skills in understanding intellectual capital, in effective management of human resources and financial capital, and in the development of the creative process.

Compared to traditional entrepreneurs who focus on industry and construction to take initiatives, take risks, and manage resources, the creative entrepreneur, in addition to all this, uses their creative and intellectual skills to turn an idea into a profitable product for the creative industry (Duening 2010). Thus creativity can be transformed into an industrial product. From the perspective of traditional entrepreneurship, an industrial product is not necessarily a product of creativity. Human creativity is an essential component of a product developed in the creative industry by a creative entrepreneur (Maryunani and Mirzanti 2015).

Creation and co-creation are at the heart of the creative entrepreneur, who transforms from an inventor of profitable ideas into a co-creator of entrepreneurial opportunities (Karami and Read 2021). In tourism services, the interaction and exchange of resources, with the ultimate goal of co-creating value beyond the financial results and positive externalities, results in social and wider benefits in the creative tourism industry. Creative tourism entrepreneurs (CTEs) are the source of tourism innovation from the perspective of the supply of tourism services (Lindroth et al. 2007), while the co-creation of a tourist product contributes, from the perspective of demand, to the creation of a unique touring experience. Creative tourism is a unique experience based on co-creation by the tourist and CTEs, which aims to expand the tourist’s knowledge of the special character and cultural heritage of the tourist destination (Long 2017).

3. Research Dimensions

Digital entrepreneurship and the creative industry in tourism exert a series of effects at economic, social, psychological, environmental, cultural, and technological levels. The ability of the socio-economic system of a tourist destination to develop and adopt creations and digital innovations is a key condition for maintaining a competitive advantage in the tourism market (Pencarelli 2020). The present research classifies, based on the existing literature, the effects of digital entrepreneurship and the creative industry on tourism in three research dimensions, as follows: the economic dimension, socio-psychological dimension, and other dimensions (which comprise the environmental, technological, and cultural dimensions) (Crnogaj et al. 2014; Theuns 2002). Subsequently, an analysis of these dimensions in tourism is conducted.

3.1. Economic Dimensions

The present study focuses on the economic impact of digital entrepreneurship and the creative industry on tourism in both quantitative and qualitative terms. More specifically, the comparative advantage achieved in tourism by digital entrepreneurship and the creative
industry is examined both in terms of the increase in tourist income and in the gross national product—through the increase in tourist income and the increase in employment—as well as by alleviating economic inequalities at both the regional and social levels (Canaleta et al. 2004).

In addition, the effect on self-employment as well as parallel part-time employment is particularly important. Part-time employment may involve either a population whose main occupation is tourism and parallel part-time tourism activities focusing on digital entrepreneurship and the creative tourism industry, or a population whose main occupation is a different field of employment. Furthermore, the economic dimensions of digital entrepreneurship and the creative industry in tourism are explored in the present research in terms of investments that are attracted and promotion of the tourist destination, reducing the operating costs, increasing the economic value of the tourist destination, increasing profitability, enhancing innovation, and analyzing the comparative advantage in the tourism market (Boes et al. 2016; Pearce 2001).

Other economic impacts investigated include stimulating regional development, boosting public revenues, encouraging small and medium businesses, improving tourism infrastructure, economic outreach, and optimizing fixed equipment. For example, enhancing the tourist visibility of an archeological site enhances the attractions of the tourist destination with beneficial effects on the overall visibility of the local tourist services. Using the same example, from the demand side, the customer satisfaction index, due to the tourist’s experiences during their stay at the tourist destination, increases (Deng et al. 2013). Similarly, reducing the cost of accommodation by implementing an innovation in browser software that acts as a guide to finding the lowest prices of a tourist destination has beneficial effects on both the supply side (by enhancing the attractiveness of the tourist destination due to competitive advantage) and the demand side (by improving the tourist satisfaction index) (Song et al. 2011).

3.2. Socio-Psychological Dimensions

These dimensions include characteristics that influence both the supply side (in regard to the local community of the tourist destination) and the demand side (in relation to the effects on the tourist client) as well as the human interactions during the tourist tour. The urbanization and professional mobility of the population of a developing tourist destination, the communication between locals and tourists, and the tourist experience of cultural customs, and the local way of life are the social effects of the tourist product (Hosany and Witham 2010).

Participation in a local traditional festival where local wine is offered includes, in addition to the tourist experience from the participation in a traditional custom, the interaction of people with different cultures, perceptions, and social habits (Axelsen and Swan 2010). Furthermore, in terms of the provision of tourism services, there are the effects of digital entrepreneurship and the creative industry on social capital, organizational learning, and group dynamics. From the tourist’s point of view, it includes the tourist loyalty index (Cossio-Silva et al. 2019), which measures the total satisfaction, expectations, and experience gained from the human interactions at the tourist destination.

The unique experience gained from co-creation in the provision of the tourist product is also a unique feeling and social transformation for the tourist (Daskalaki et al. 2015). It also includes the attitude toward the host destination (Funk and Bruun 2007), the interaction with the culture of the tourist destination, the attractiveness (the intimacy with the tourism service providers and the mix of emotions toward the destination (Al-Msallam 2020), the human interactions with the hosts, and the general sociability during the tour.

Human interactions have an indirect effect (Lin and Miller 2003) on the culture of both the local community and of the tourist visiting the tourist destination. For example, the intimacy and trust that develop between a host and a guest initially through interaction when creating a tourist product and/or virtual tour of the hosting and visit areas, then during the stay and tour for the tourist both in the host environment and in the wider
environment of the tourist destination, and eventually after the tour are rewarded by the tourist-client with a positive evaluation; this intimacy and trust are both results of the social interaction.

The socio-psychological effects of digital entrepreneurship and the creative industry can have either an individual level of impact on the tourism offer, and in the case of a cultural–creative–historical tourism ecosystem, it helps to change the domestic culture (Haessly 2010), or an organizational level of impact where knowledge capital allows companies to provide a common vision and improve through knowledge management (Cooper 2018).

3.3. Other Dimensions

The environmental dimensions, technological dimensions, and spatial dimensions of tourism fall under this category. The environmental impact of tourism includes the negative externalities from tourism development—the environmental pollution caused mainly by mass and uncontrolled tourism—as well as the positive externalities that come from alternative tourism and sustainable development (Biondo 2012). The spatial expansion caused by tourism development causes conflicts due to the depletion of natural resources to the detriment of other economic sectors, as well as institutional issues of urban planning and spatial planning of tourist infrastructure. Innovation and creativity are factors of sustainability in tourism development, especially where savings are achieved (Brem and Puente-Diaz 2020). Creativity is directly related to sustainability in tourism as its sources lie in sustainable economic, social, cultural, and environmental choices.

Entrepreneurs in tourism based on new technology and creativity play key roles through the innovation they offer to enhance competitiveness. The development of mobile applications has minimized the distance between tourism providers and consumers while enhancing the creativity of tourism and has effectively approached audiences (Psomadaki et al. 2022). In addition, the use of customer relationship management (CRM) software in tourism has enhanced digital interactions and contributed to the co-creation of tourist products and the promotion of tourist destinations (Buhalis and Sinarta 2019).

The use of biometrics has improved security and mobility, while the launch of software based on global positioning systems (GPS) has dramatically increased the choice of travel services at destinations by creating a new digital travel market where every travel provider and tourist meets. Innovations in tourism, as a result of digital entrepreneurship and creativity, have brought new experiences and technological tools, such as big-social data in tourism, data-driven tourism experience, and storytelling engines.

4. Materials and Methods

Using the method of critical review, this research presents an accurate record of findings from previous studies regarding the economic, socio-psychological, and other dimensions of digital entrepreneurship and creative industries in tourism; as well as a research agenda of factors that influence digital entrepreneurship and the creative industry in tourism. Through a critical review of various types of research works (articles, logical databases, approach reports, case studies, surveys, etc.), the context of a knowledge area was studied by calculating and analyzing the aspects of quantity, quality, and scientific progress. A critical review is not identical to a traditional bibliographic review, as it provides mapping of a delimited field, proposes a research agenda, identifies research gaps, and discusses questions for future research (Pickering et al. 2014). Access to the overall scientific work is limited, and therefore reliable sources are selected with strict scientific criteria to ensure the validity, consistency, and completeness of the findings.

The literature research showed that a significant but relatively small number of research projects have been undertaken on digital entrepreneurship and creative industries in tourism, which is a dynamic scientific field and the amount of research has been increasing in recent years. Currently, no prominent journal publishes exclusively on the study objects of the present research. As a result, research papers published in a number of different
journals are fragmented and usually focus on tourism, tourism management, sustainable development, technology, and small and medium enterprises. In addition, they are always in relation to the content of the research work and the selection of authors.

This critical review focused on identifying quantitative and qualitative characteristics (Manzoor et al. 2021) of the objects under investigation and, specifically, article titles, keywords, scientific fields, factors, and dimensions. In addition, a research search classing was defined per factor for the objects under investigation. The search yielded no published research on the research agenda or overview of digital entrepreneurship and the creative industries in tourism.

Key research terms were searched in the fields of title, keywords, content, summary, and full text, and experimental confirmation guides were used to document research works related to digital entrepreneurship and creative industries in tourism. The present study was based on the critical review method in three steps. First, the collection of research papers; second, the selection of related papers through filtering; and third, their extraction and evaluation (Seuring and Muller 2008).

The literature analysis of the dimensions and factors involved in the objects of the present research agenda was conducted on the data of academic publications cited in the Scopus and Google Scholar databases. The Scopus research base provides all the necessary information management tools and research criteria, such as the number of reports, the year of publication and accessibility of the research paper, ensures the availability of high-quality published research papers with reliable and valid research sources, and constitutes the most widely used database in bibliographic research. The Google Scholar research database was used in addition to Scopus due to the large number of research papers it indexes and its access to greater resources than any other relevant search engine, thus, ensuring that the maximum possible amount of academic research relevant to the objects of this research agenda was identified.

The process initially used an extensive keyword search in the title, summary, and keyword domains of the databases. The propelled search motors of Scopus and Google Scholar and the catchphrases used for the research agenda were: “digital entrepreneurship in tourism, digital entrepreneurship in hospitality industry”, “e-entrepreneurship in tourism and hospitality industry”, “digital entrepreneurship and creative industries in tourism and hospitality industry”, “creative industries and tourism”, “creative entrepreneurship and tourism”, “cultural heritage in tourism and hospitality industry”, “creativity and tourism”, and “entrepreneurship and creative industries in e-tourism”.

Initially, 112 papers were identified in the initial search by using keywords based on the criterion of peer-review publications. The titles, abstracts, and conclusions of the papers were then examined to assess their relevance to the objectives of this critical review, and research that was not relevant was excluded. A total of 20 papers were identified in the final review for inclusion in the present research, followed by their categorization into digital entrepreneurship and the creative industries in tourism. A critical review was conducted with the interpretation of the results and the development of the research dimensions. The research process of the study used is shown in Figure 1.
5. Results
This critical review outlines digital entrepreneurship and creative industries by synthesizing 20 studies published from 2005 to 2022. The studies were divided into two groups that constitute the overview of the two research objectives. Specifically, 10 publications outline a bibliographic overview of digital entrepreneurship in tourism, and the remaining 10 publications address the creative industries in tourism. The findings of the critical review, as they emerged from the published research papers, show an exponential increase in publications in the period 2019–2022 demonstrating an increasing interest in both subjects.

Figure 1. Research process of the study. Source: Compiled by the author, own illustration.
5. Results

This critical review outlines digital entrepreneurship and creative industries by synthesizing 20 studies published from 2005 to 2022. The studies were divided into two groups that constitute the overview of the two research objectives. Specifically, 10 publications outline a bibliographic overview of digital entrepreneurship in tourism, and the remaining 10 publications address the creative industries in tourism. The findings of the critical review, as they emerged from the published research papers, show an exponential increase in publications in the period 2019–2022 demonstrating an increasing interest in both subjects.

It is possible that the consequences of the spread of COVID-19 strengthened the research interest in digital entrepreneurship and the creative industries in tourism, possibly due to the innovative and remote applications and opportunities that have been introduced (Khlystova et al. 2022). It is therefore important to understand the findings of the published work to explore possible research gaps and future research areas while revealing new knowledge, findings, and dimensions relating to the impact of digital entrepreneurship and the creative industries on the tourism industry. Based on the research findings in each research paper, the economic, socio-psychological, and other dimensions of tourism were recorded and are the basis for the possible issues—proposed in the Discussion section—to be explored.

Table 1 presents the academic literature that addresses digital entrepreneurship in tourism, as a research focus. In each publication, a distinction was made in relation to the study context, the study approach, the methodology, the research findings, and the economic, socio-psychological, and other dimensions of tourism, by category. Table 2 presents the academic literature that addresses the creative industries in tourism, as a research focus.
Table 1. Academic literature addressing digital entrepreneurship in tourism as a research focus.

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Study Context</th>
<th>Study Approach</th>
<th>Method</th>
<th>Findings</th>
<th>Research Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matlay and Westhead (2005)</td>
<td>Western, Central,</td>
<td>Organizational</td>
<td>Qualitative (case study, 15 telephone interviews)</td>
<td>Virtual team entrepreneurship in the European tourism and hospitality industries to address attitudinal, resource, operational, and strategic barriers to new firm creation and development.</td>
<td>Economic: investment in ICTs, commitment to e-entrepreneurship, recruitment, and exploitation of disparate human capital, association of knowledge endowment with income distribution and reinvestment, and reaction to risk and uncertainty. Socio-psychological: team dynamics, collective contributions, and collective entrepreneurial. Other: alertness and willingness to respond to new opportunities</td>
</tr>
<tr>
<td>Lo et al. (2011)</td>
<td>Hong Kong</td>
<td>User</td>
<td>Quantitative (1466 telephone interviews)</td>
<td>Ignoring Web 2.0 as a marketing communication tool will be detrimental to tourist destinations.</td>
<td>Economic: promotion through effective use of private sites, destination image, and web tourism marketing. Social: customer communication and online media travel photo-sharing community.</td>
</tr>
<tr>
<td>Costa and Melotti (2012)</td>
<td>Italy</td>
<td>Organizational</td>
<td>Qualitative (inductive inquiry, benchmarking cases)</td>
<td>Connecting video game technologies, 3D reconstruction, and virtual reality in archeological sites with virtual tourism experience.</td>
<td>Economic: new tourist attractions; economic value of de-territorialized archaeological areas; collaborative partnerships among humanist intellectuals, digital media technologists, and entertainment entrepreneurs; and promotional mix of virtual and experiential archaeology. Socio-psychological: heritage of the senses and satisfied virtual reality users. Other: visual culture of archaeological areas, re-invention of archaeological areas via virtual reality, immaterial knowledge, and online visit of archaeological areas.</td>
</tr>
<tr>
<td>Richter et al. (2017)</td>
<td>Germany, Austria,</td>
<td>Organizational</td>
<td>Qualitative (14 semi-structured interviews with entrepreneurs)</td>
<td>Digital entrepreneurs in a sharing economy are more motivated by economic benefits. Customers also act as providers. Urbanization, higher flexibility, and mobility lead to entrepreneurial activity and applications in a sharing economy.</td>
<td>Economic: saving money, positive attitude towards property, and entrepreneurship incentives in a sharing economy. Socio-psychological: personal assistance and personalization, social life components, connectivity with peers, and sharing in the context of social projects.</td>
</tr>
<tr>
<td>Krishnamurthy et al. (2019)</td>
<td>India</td>
<td>User</td>
<td>Quantitative (500 questionnaires)</td>
<td>Travel start-ups and entrepreneurs cater to young travelers who prefer to pay less to enjoy niche tourism. Age and qualifications are the factors that influence the use of niche tourism through information and communication technology-enabled e-tourism promoted by travel start-ups and entrepreneurs.</td>
<td>Economic: lower costs in tourism, niche tourism, and travel start-ups for young tourists.</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Study Context</td>
<td>Study Approach</td>
<td>Method</td>
<td>Findings</td>
<td>Research Dimensions</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------</td>
<td>----------------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Alford and Jones (2020)</td>
<td>England</td>
<td>User</td>
<td>Qualitative (fieldwork data, 53 entrepreneurs, inductive inquiry)</td>
<td>Measurement objective formulation, strategy proposal, role of peer clusters, and knowledge acquisition through sharing are the most important themes that concern digital marketing entrepreneurs in tourism and could be supported by tourism business agencies and entrepreneurs.</td>
<td>Economic: leverage of resources, collaborative marketing, and government support. Socio-psychological: interaction with peers, learning, cluster group work, peer sharing of knowledge, and peer cluster project.</td>
</tr>
<tr>
<td>Casillo et al. (2020)</td>
<td>Italy</td>
<td>Organizational</td>
<td>Qualitative (case study)</td>
<td>Chatbots provide data and services of highly customized and complete tour packages to tourists.</td>
<td>Other: Travel experience and storytelling engines.</td>
</tr>
<tr>
<td>Filiieri et al. (2021)</td>
<td>Europe</td>
<td>Organizational</td>
<td>Quantitative (Crunchbase database) and Qualitative.</td>
<td>Learning, communication, and services are artificial intelligence technological domains in the travel and tourism industry that receive more funding from venture capitalists. European artificial intelligence start-ups are concentrated in the capitals of major tourism destinations in France, UK, and Spain. Venture-capital backed AI solutions focus on the pre-trip and post-trip. Artificial intelligence start-ups have been mainly created by male science, technology, engineering, and mathematics specialists with previous study experiences in non-start-up companies.</td>
<td>Economic: marketing automation, customer service, human capital theory, and work experience. Socio-psychological: demographic characteristics and gender gap. Spatial: regional advantage.</td>
</tr>
<tr>
<td>Cuomo et al. (2021)</td>
<td>Italy</td>
<td>Organizational</td>
<td>Qualitative (case study)</td>
<td>Passionate tourists are less satisfied with the big social data approach to tourism experience.</td>
<td>Economic: Expanding market share through cultural tourism and customer-oriented service design. Other: Big social data in tourism and data-driven tourism experience approach.</td>
</tr>
</tbody>
</table>

Source: Own elaboration compiled by the author based on the sources mentioned in the table.
Table 2. Academic literature addressing the creative industries in tourism, as a research focus.

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Study Context</th>
<th>Study Approach</th>
<th>Method</th>
<th>Findings</th>
<th>Research Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andersen (2010)</td>
<td>Australia</td>
<td>User</td>
<td>Quantitative (45 questionnaires)</td>
<td>Life on the periphery is both enabling and disabling for informally qualified professional visual artists of the cultural industries.</td>
<td>Socio-psychological: Successful group, creative making, and lack of cultural stimulation.</td>
</tr>
<tr>
<td>Richards (2014)</td>
<td>Global</td>
<td>-</td>
<td>Review</td>
<td>Intangible competitive advantage leads to relational forms of tourism based on creativity and embedded knowledge.</td>
<td>Social: Growing complexity of creative relationships between destinations, tourists, and local residents.</td>
</tr>
<tr>
<td>Pappalepore et al. (2014)</td>
<td>United Kingdom</td>
<td>User</td>
<td>Qualitative (142 interviews)</td>
<td>People are a fundamental attraction. Consumers (tourists, visitors, employees, and residents) become prosumers who consume and build the place at the same time, creating value that can be gained from the experience of these destination areas.</td>
<td>Social: Consumption and accumulation of cultural capital.</td>
</tr>
<tr>
<td>Liu (2018)</td>
<td>Taiwan</td>
<td>Organizational</td>
<td>Quantitative (432 surveys)</td>
<td>Cognitive capital allows companies to provide a common vision, collective goals, and a mission for the members of the organization. Emerging industries improve knowledge transfer by enhancing the direct and indirect effects between social capital, organizational learning, and absorption capacity.</td>
<td>Social: Social capital, organizational learning, and knowledge management.</td>
</tr>
<tr>
<td>Henche et al. (2020)</td>
<td>Spain</td>
<td>User</td>
<td>Quantitative (187 questionnaires)</td>
<td>A model for managing cultural and historic districts in world cities produces greater capacity and positive results in urban historic centers. Informal links among different stakeholders of a cultural district and their collaboration lead to the development of cultural–creative–historic tourism ecosystems.</td>
<td>Economic: Urban planning and urban cost development. Other: Creative and cultural neighborhood, and urban regeneration model. Other: Sustainability and historic urban center management.</td>
</tr>
<tr>
<td>Dias et al. (2020)</td>
<td>Portugal, Spain</td>
<td>Organizational</td>
<td>Mixed (Qualitative: 4 interviews, Quantitative: 115 questionnaires)</td>
<td>Local knowledge is the source of entrepreneurs’ competitive advantages in innovativeness and self-efficacy as it relates to tourist lifestyles.</td>
<td>Economic: Entrepreneurial innovativeness and entrepreneurial communication.</td>
</tr>
<tr>
<td>Xiong et al. (2020)</td>
<td>China</td>
<td>User</td>
<td>Quantitative (578 questionnaires)</td>
<td>Offering integrated capacities about creative class entrepreneurship enhances in-migration tourism business innovation and business sustainability.</td>
<td>Economic: Immigrant entrepreneurship, innovative development, and class theory.</td>
</tr>
<tr>
<td>Dias et al. (2021a)</td>
<td>Portugal, Spain</td>
<td>Organizational</td>
<td>Mixed (Qualitative: 4 interviews, Quantitative: 115 questionnaires)</td>
<td>The assimilation of local knowledge plays a mediating role between the acquisition of local knowledge, innovation, and self-efficacy of TLEs. A community-focused strategy has a positive effect on innovation and self-efficacy through the indirect impact of business communication.</td>
<td>Economic: Self-efficacy, innovation, and business communication.</td>
</tr>
</tbody>
</table>

Source: Own elaboration compiled by the author based on the sources mentioned in the table.
6. Discussion

The first objective of the critical review was to present the published work in the research field of digital entrepreneurship and creative industries in tourism, identifying the findings of each research work as well as the methodology and research framework. Furthermore, a distinction was made between the economic, socio-psychological, and other dimensions of tourism (Van Acker et al. 2010) described in the publications’ findings. Particular attention was paid to the categorization of other dimensions in publications where the findings indicate technological and or spatial dimensions of tourism.

The penetration of digital technologies in daily life reshapes both the lifestyle and economic behavior as well as the operation of enterprises operating in this rapidly growing digital environment. Innovation in the new digital environment can be a competitive advantage for tourism businesses operating in a transformative and highly competitive environment. Achieving competitiveness in tourism is related to the ability of tourism entrepreneurs to innovate, to act entrepreneurially and creatively (Dias et al. 2021b), to effectively manage cultural capital, and to operate flexibly in a digital entrepreneurial environment.

Based on Tables 1 and 2, a research agenda is presented on the proposed factors that influence digital entrepreneurship and the creative industries in tourism. The proposed research agenda provides a basis for further research on the findings and helps to detect research gaps with a view to future research. The basic factors involved are summarized below.

1. The key aspect of digital entrepreneurship and creative industries in tourism is the creation, implementation, or use of innovation by entrepreneurs. Particularly in the creative industries in tourism, the assimilation of the local culture in the applied innovation is required.

2. Creating value from intellectual and practical knowledge implies the application of some characteristics in the creative tourism industry, such as the transfer of local knowledge and cultural elements from the destination area as well as a focus on the cultural community.

3. The widespread use of telecommunication devices by young travelers requires the adoption of new technological innovations, such as 3D virtual tours, chatbots, video game technologies, artificial intelligence for communication and learning, and Web 2.0 as a communication tool.

4. Some research findings highlight the importance of focusing entrepreneurship through perceived ease-of-use technologies aimed at young travelers who prefer special forms of tourism.

5. The key economic dimensions of digital entrepreneurship highlight the economic benefits and implications of investing in ICT in tourism and also focus on the use of innovative digital media to reduce tourism costs.

6. The socio-psychological dimensions highlight the dynamics in digital communication for the promotion of innovative tourist services and the utilization of local authenticity and cultural capital during the tourist experience.

6.1. Research Gaps and Future Research

This critical review, which is based on the research agenda in digital entrepreneurship and the creative industries in tourism, highlights certain research gaps and suggests directions for future research in order to advance academic understanding. The research questions discussed are based on the findings of the existing research presented in this present research agenda as well as the dimensions induced in tourism. The presentation takes place separately for the economic, socio-psychological, and other dimensions of tourism.
6.2. Research Gaps and Future Research Related to the Economic Dimensions

Existing research focuses on saving tourism costs through the digitization of tourism services and incentives to invest in digital entrepreneurship in tourism. Further studies may need to explore how to exploit local cultures and the particular ecosystems of tourist destinations (Philipp et al. 2022).

The contribution of digital entrepreneurship and creative industries is a demonstrated in regional development and in stimulating the prosperity and standard of living of rural societies. The CCIs can stimulate regional development by contributing to the development of rural and regional areas. Particularly in tourism, this can be achieved by exploring a development model of rural tourism based on local values and local cultural creativity (Pourzakarya 2022).

While the findings of the studies presented in this critical review focus on digital applications that promote virtual touring and creativity in tourism, missing elements underscore the ingredients of successful digital entrepreneurship. Further research into creative tourism may provide more insights into the skills, abilities, and characteristics of successful entrepreneurs (Hatthakijphong and Ting 2019) in promoting the digital appeal of tourist destinations.

The findings of the proposed research agenda reveal the rapid development of digital and creative entrepreneurship in tourism, as well as the need for entrepreneurs to implement digital tools in managing and promoting creative tourism. However, the impact on the income of local tourist destination communities has not been sufficiently clarified. Research questions remain as to whether the growth of digital and creative entrepreneurship increases the overall revenue or has a negative impact on the revenue generated from the operation of existing tourism services.

6.3. Research Gaps and Future Research Related to the Social and Psychological Dimensions

The socio-psychological dimension was the second dimension to be explored in studies in digital entrepreneurship and the CCIs in tourism. The emergence of social and cultural capital and the evolution of communication and group dynamics in the digital tourism media are the main socio-psychological dimensions in the existing research. For future research, the attitudes, feelings, and experiences from the interactions of tourists with local communities may be explored to add new socio-psychological dimensions to tourist products (Lin et al. 2019).

In this critical review, the research on socio-psychological findings focused mainly on group interaction, digital communication, and creative learning. Expanded empirical research could focus on the social impact of tourist behavior as well as the attraction that creative entrepreneurship brings to tourist destinations. In addition to the new digital age of smart tourism technologies including virtual browsing, digital travel guides, and the chatbot services (Orden-Mejia and Huertas 2021), what matters most is the satisfaction of the traveler. It is the satisfaction of the traveler that largely determines their own travel behavior (Batra 2009). This satisfied traveler interacts digitally, sharing their tour experience (Tavitiyaman et al. 2022). The tourist experience remains the key factor of tourist satisfaction even when creative entrepreneurship and digital innovation enhance the attractiveness of a tourist destination.

Future research might focus on the tourist’s emotions and satisfaction during a cultural tour (Chang 2008). The search for authenticity, reflection, social interaction with the locals, emotional identification with the destination, and even mutual trust are concepts understood differently in different tourist destinations. On the other hand, the empirical exploration of concepts, such as archeology, social anthropology, collective memories, and representations, will enhance the cultural dimension of creative digital entrepreneurship in tourism.

Regarding the quality of life in the destination region, it has not been confirmed whether this is improved by the development of creative and digital entrepreneurship in tourism. In particular, factors relating to the quality of life, such as the destinations’
tourism carrying capacity, the sustainability of tourism development, and improved infrastructure (Mamirkulova et al. 2020), need to be confirmed as being positively related to the development of digital and creative entrepreneurship in tourism.

6.4. Research Gaps and Future Research Related to the Other Dimensions

The emergence of social and cultural capital as well as the development of communication and group dynamics evolving in digital tourism media, are the main socio-psychological dimensions that emerged from the existing research. Possibly exploring the attitudes, feelings, and experiences from the interaction of tourists with local communities will add new socio-psychological dimensions to the product of tourism.

The contribution of digital entrepreneurship and the CCIs to tourism appears to be minimal to date in sustainable tourism development. The research findings do not indicate any particular interest in exploring the impact of creative entrepreneurship in sustainability in tourism. This critical review highlights the need for future research to make a strong contribution to digital and creative entrepreneurship that achieves energy, water, and resource savings (Warren and Becken 2017). Focusing research on developing a business tourism ecosystem through CCIs similar to an archipelago (Barandiaran-Irastorza et al. 2020) or within an urban context can be a key productivity factor in creative tourism entrepreneurship (Loots et al. 2021).

The sustainability of tourist destinations and the quality of life are key factors of successful creative entrepreneurship (Sun and Xu 2019). Although sustainability is one of the other research dimensions of certain studies in the creative industries in tourism, quality of life is a concept that remains without empirical research especially in the emerging digital environment of creative entrepreneurship in tourism. Furthermore, in terms of the spatial and geographical dimension, this will be of particular interest in the future to investigate the impact of digital entrepreneurship and the creative and tourism industries on the completeness of mature tourist destinations in relation to the fullness of emerging unsaturated tourist destinations.

7. Conclusions

This paper aimed to highlight the characteristics, findings, and research dimensions of digital entrepreneurship and CCIs in tourism through an investigation, analysis, and critical review of previous research. The critical review highlighted the relatively limited research in this area and identified the economic, socio-psychological, and other dimensions of tourism, which include spatial, technological, and sustainability issues. The research agenda of six key factors that influence digital entrepreneurship and the creative industries in tourism based on previous research findings emerged. Based on these factors, entrepreneurs in tourism can align themselves with the new digital age of creative entrepreneurship.

This critical review is a guide to entrepreneur decision making and to future research that will further explore digital and creative entrepreneurship in tourism. In addition, it can be used to focus on aspects and applications of CCIs in tourism that researchers have not yet studied. Moreover, based on the findings of the present critical review, future empirical studies may further investigate the interrelationship between memorable experiences and overall satisfaction (Sie et al. 2018). In any case, this work provide useful findings in tourism entrepreneurship that can assist tourism businesses in perspective and viability in a highly competitive business environment.

The main limitations of this research include the focus on digital entrepreneurship and the creative industries in tourism exclusively as well as the reliance on only Scopus and Google Scholar for the keyword searches. However, the restrictions on keywords and scientific search engines ensured that the focus was solely on tourism, in terms of the research findings and the reliability of publications. As this critical review focused on identifying the findings and research dimensions of digital entrepreneurship and CCIs in tourism, the proposed research agenda should be tested in the tourism economy by innovative entrepreneurs.
Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Conflicts of Interest: The author states that there are no competing interests to declare.

References

Alford, Philip, and Rosalind Jones. 2020. The lone digital tourism entrepreneur: Knowledge acquisition and collaborative transfer. *Tourism Management* 81: 104139. [CrossRef]


Andersen, Lisa. 2010. Magic Light, Silver City: The business of culture in Broken Hill. *Australian Geographer* 41: 71–85. [CrossRef]


Batra, Adarsh. 2009. Senior Pleasure Tourists: Examination of Their Demography, Travel Experience, and Travel Behavior Upon Visiting the Bangkok Metropolis. *International Journal of Hospitality & Tourism Administration* 10: 197–212. [CrossRef]


Cuomo, Maria Teresa, Debora Tortora, Pantea Foroudi, Alex Giordano, Giuseppe Festa, and Gerardino Metallo. 2021. Digital transformation and tourist experience co-design: Big social data for planning cultural tourism. *Technological Forecasting and Social Change* 162: 120345. [CrossRef]
Daskalaki, Maria, Daniel Hjorth, and Johanna Mair. 2015. Are Entrepreneurship, Communities, and Social Transformation Related? *Journal of Management Inquiry* 24: 419–23. [CrossRef]


Kanovska, Lucie, and Veronika Bumberova. 2021. The Differences in the Propensity of Providing Smart Services by SMEs from the Electrical Engineering Industry with Regard to Their Cooperation and Innovation Flexibility. *Sustainability* 13: 5008. [CrossRef]


Liu, Chih-Hsing Sam. 2018. Examining social capital, organizational learning and knowledge transfer in cultural and creative industries of practice. *I Tourism Management* 64: 258–70. [CrossRef]


Meyer, Christopher, Laima Gerlitz, and Monika Klein. 2022. Creativity as a Key Constituent for Smart Specialization Strategies (S3), What Is in It for Peripheral Regions? Co-creating Sustainable and Resilient Tourism with Cultural and Creative Industries. *Sustainability* 14: 3469. [CrossRef]

Muller, Kathrin, Christian Rammer, and Johannes Truby. 2009. The role of creative industries in industrial innovation. *Innovation* 11: 148–68. [CrossRef]


Pickering, Catherine, Julien Grignon, Rochelle Steven, Daniela Guitart, and Jason Bryne. 2014. Publishing not perishing: How research students transition from novice to knowledgeable using systematic quantitative literature reviews. *Studies in Higher Education* 40: 1756–69. [CrossRef]

Pourzakarya, Maryam. 2022. Searching for possible potentials of cultural and creative industries in rural tourism development; a case of Rudkhan Castle rural areas. *Consumer Behavior in Tourism and Hospitality*. [CrossRef]


Richards, Greg. 2014. Creativity and tourism in the city. *Current Issues in Tourism* 17: 119–44. [CrossRef]


Smith, Stephen. 2015. A sense of place: Place, culture and tourism. Tourism Recreation Research 40: 220–33. [CrossRef]


Tomczak, Paulina, and Krzysztof Stachowiak. 2015. Location patterns and location factors in the cultural and creative industries. Quaestiones Geographicae 34: 7–27. [CrossRef]


