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UNVEILING THE INNOVATION DNAs OF TOURISM LIFESTYLE ENTREPRENEURS: A COMBINED SEM AND fsQCA APPROACH

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Master of Science in Tourism Development and Culture
Erasmus Mundus Joint Masters Degree

Supervisor:
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Department of Marketing, Operations and Management
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A nonna, senza la quale non sarei chi sono

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Resumo

Os empresários de estilos de vida turísticos (TLE) caracterizam-se pelo seu empenhamento na prossecução e manutenção do seu estilo de vida desejado através das suas empresas. Por conseguinte, as suas motivações ultrapassam os meros factores económicos. Embora uma extensa pesquisa categorize as motivações dos TLEs, existe pouca clareza sobre como essas motivações influenciam os resultados da inovação no sector do turismo. Este estudo investiga o impacto da paixão empreendedora (EP), do sentido de comunidade (SOC) e da orientação para a sustentabilidade ambiental (ESO) na inovação dos TLEs no centro de Portugal. A modelação de equações estruturais (SEM), especificamente os mínimos quadrados parciais (PLS), foi utilizada para descobrir relações significativas entre estas variáveis e a inovação. Os resultados revelam uma relação linear com o sentido de comunidade, enquanto a paixão empreendedora e a orientação para a sustentabilidade ambiental apresentam associações não lineares. Além disso, a análise comparativa qualitativa fuzzy-set (fsQCA) identifica três DNAs de inovação distintos - Incorporado (SOC-EP), Eco-empreendedores (ESO-EP) e Centrado na Sustentabilidade (ESO-SOC) - destacando configurações variadas de atitudes que impulsionam a inovação. Estes resultados aprofundam a compreensão dos TLEs ao enfatizar a sua natureza heterogénea e elucidam como diversas atitudes têm impacto na inovação. Revelam também combinações críticas de motivações que promovem a inovação entre as ETL, oferecendo uma visão sobre atitudes efectivas. Por último, esta investigação clarifica a forma como as motivações financeiras e não financeiras dos TLEs influenciam a inovação e a sustentabilidade nas suas práticas.

Abstract

Tourism lifestyle entrepreneurs (TLEs) are characterized by their commitment to pursuing and sustaining their desired lifestyle through their businesses. Therefore, their motivations extend beyond mere economic factors. While extensive research categorizes TLEs' motivations, little clarity exists on how these motivations influence innovation outcomes in the tourism sector. This study investigates the impact of entrepreneurial passion (EP), sense of community (SOC), and environmental sustainability orientation (ESO) on TLEs' innovation in central Portugal. Structural equation modeling (SEM), specifically partial least squares (PLS), was utilized to uncover significant relationships among these variables and innovation. Findings reveal a linear relationship with sense of community, whereas entrepreneurial passion and environmental sustainability orientation exhibit non-linear associations. Additionally, fuzzy-set qualitative comparative analysis (fsQCA) identifies three distinct innovation DNAs - Embedded (SOC-EP), Eco-preneurs (ESO-EP), and Sustainability-centered (ESO-SOC) - highlighting varied configurations of attitudes driving innovation. These results deepen understanding of TLEs by emphasizing their heterogeneous nature and elucidate how diverse attitudes impact innovation. They also reveal critical combinations of motivations that foster innovation among TLEs, offering insights into effective attitudes. Lastly, this research clarifies how TLEs' financial and non-financial motives influence innovation and sustainability in their practices.

Index

Acknowledgments iii

Resumo v

Abstract vii

Introduction 1

Literature Review 4

2.1. Lifestyle Tourism Entrepreneurship and Innovation 4

2.2. Entrepreneurial Passion 5

2.3. Environmental Goals 6

2.4. Sense of Community 9

Methodology 12

3.1. Data collection 12

3.2. Variables 12

3.3. Common method bias 13

3.4. Data analysis 13

Results 15

Discussion 20

Conclusion and implications 27

Reference list 29

Introduction

When people are passionate about an activity, it continually occupies their thoughts, often sparking innovative ideas and approaches (Cardon et al., 2013). In the realm of tourism, innovation emerges as a crucial opportunity to shape the future amidst the sector's ongoing transformations (Işık et al., 2019). Williams et al. (2021) highlight that "small firms dominate the tourism industry and are a hotbed of innovative practice"(p. 294). This innovation is driven by entrepreneurs whose distinctive lifestyles and goals set them apart from their peers (Dias et al., 2023). Tourism lifestyle entrepreneurs (TLEs) are individuals who create and manage tourism-related businesses primarily to sustain their preferred way of life, focusing on personal satisfaction, and socio-cultural values, rather than significant economic growth (Griggio & Oxenswärdh, 2021). They aim to maintain a balance between family, economic, and social needs through their ventures and typically operate on a smaller scale and in locations that align with their desired lifestyle (Bredvold & Skålén, 2016). Hence, these entrepreneurs prioritize quality of life and diverse pursuits over financial expansion, and their economic objectives are primarily centered on earning sufficient income to sustain their chosen lifestyle (Dias et al., 2023). Several studies have examined the correlation between the diverse objectives of tourism lifestyle entrepreneurs and their heightened emphasis on sociocultural and environmental sustainability (Duarte et al., 2023; Griggio & Oxenswärdh, 2021). However, to date, there is a lack of research on how these entrepreneurs practically balance their financial and non-financial goals. The review of the existing body of research indicates that TLEs display varied behaviors, revealing them as a heterogeneous group. This diversity highlights the need to clarify the implications of different attitudes towards innovation outcomes. As noted by Dias et al. (2023), there is a scarcity of studies that focus on the role of innovation among TLEs and their contributions to the development and expansion of tourism activities. Specifically, Bredvold and Skålén (2016) and Dias et al. (2021) emphasize the need for further research on the antecedents of innovation among TLEs.

To fill this gap, this research aims to address how the attitudes of tourism lifestyle entrepreneurs towards sense of community, entrepreneurial passion, and environmental sustainability orientation influence innovative outcomes within the tourism sector. These three key variables are chosen as they relate to the social, economic, and environmental dimensions of tourism lifestyle entrepreneurship and are underpinned by theoretical frameworks that elucidate their significance within the context of innovation in lifestyle tourism entrepreneurship. The resource-based view (RBV) theory is instrumental in unfolding the role of individual attributes and social capital as critical determinants of innovation among lifestyle tourism entrepreneurs. According to RBV, a firm's competitive advantage and innovative outcomes stem from its unique and valuable resources. Thus, entrepreneurs' distinct

characteristics, such as personal interests, informal ties, and networks, constitute valuable resources, that contribute to innovation (Zahra, 2021). This theory offers a framework for comprehending how TLEs' entrepreneurial passion and environmental sustainability orientation can shape unique traits, fostering innovation in products and services. Furthermore, incorporating the embeddedness theory into the analysis provides a sociological perspective on how social relationships, community ties, and local contexts affect the attitudes and behaviors of lifestyle tourism entrepreneurs. Embeddedness theory, introduced by Granovetter (1985), emphasizes the influence of social embeddedness on economic behavior, highlighting the interconnectedness between entrepreneurs and their communities. Within this context, the sense of community plays a significant role in shaping entrepreneurial identity and behavior. Moreover, when considering environmental sustainability orientation, embeddedness theory offers perspectives on how entrepreneurs involved in sustainable practices interact with their local environments. Their attachment and connection with the territories in which they operate can positively influence their commitment to environmental conservation and community well-being.

To investigate the relation between each variable and innovation among tourism lifestyle entrepreneurs, this research employs structural equation modeling (SEM) using partial least squares (PLS) via SmartPLS 4 software. The findings reveal linear and non-linear relationships, highlighting optimal points within attitude toward sense of community, entrepreneurial passion, and environmental sustainability orientation. Thus, as the quadratic regression analysis revealed non-uniform patterns, it was noted that the conditions associated with high innovation in one variable may differ in another. To address this observation, fuzzy-set qualitative comparative analysis (fsQCA) was employed to identify complex causal relationships and configurations between the variables that lead to innovation. Three distinct innovation DNAs were identified: embedded (SOC-EP), eco-preneurs (ESO-EP), and sustainability-centered (ESO-SOC).

Thus, the key contribution of this research is threefold. Firstly, it identifies linear and non-linear relationships among the examined variables, which reveals distinct segments and sheds light on how the variance of attitudes of TLEs affects their innovation outcome. Secondly, it elucidates what combinations of entrepreneurial passion, sense of community, and environmental sustainability orientation lead to innovation among TLEs, enhancing the understanding of how different conditions influence innovation. Lastly, these results combined, as they clarify the non-homogeneousness of TLEs, help mitigate the confusion around how entrepreneurs' lifestyle motivations relate to innovation and sustainability within their businesses.

To align with the research objectives, the paper begins with a comprehensive review of the literature on innovation and the three variables. This serves as the theoretical groundwork necessary to construct the conceptual model and develop the research hypotheses. The following section outlines the data collection process and the methodological approach utilized in the study. Thereafter, the results of the research are presented and discussed. The paper concludes with an analysis of the theoretical and managerial implications.

CHAPTER 2

Literature Review

2.1. Lifestyle Tourism Entrepreneurship and Innovation

The definition of innovation is not unanimous. Many scholars have explored this complex and multifaceted concept across various disciplines and applications. This research will focus specifically on innovation within the tourism field. As a service sector, tourism faces constant changes, requiring operators to continuously adapt to evolving customer preferences, shifts in consumption patterns, new competitors, and emerging technologies (Işık et al., 2019). These matters are vital for tourism entrepreneurs because they introduce unpredictability. According to Knight (1921), risk and uncertainty drive the diffusion of innovation. In this context, it is important to note that the tourism industry is predominantly composed of small firms with limited resources, which makes them even more vulnerable to risk factors (Williams et al., 2021). Scholars disagree on how this vulnerability impacts their capacity for innovation. Some researchers, such as Bos-Brouwers (2010) and Bressan and Pedrini (2020), argue that small enterprises' limitations in funding, time, and knowledge hinder innovation compared to larger firms. However, others, like Becheikh et al. (2006) and Işık et al. (2019), find an inverse relationship between firm size and innovative actions, suggesting that innovation is especially relevant in micro, small, and medium-sized firms (Işık et al., 2019). In particular, Shaw and Williams (2009) found that tourism lifestyle entrepreneurs outperform larger firms in innovating products and services. TLEs can more effectively convert 'free' resources into marketable products compared to commercial enterprises. This is due to their lifestyle priorities, personal interest in residing in specific locations, and the nature of the services they provide (Carson & Carson, 2018). Moreover, their informal ties and networks contribute directly to their assets and knowledge (Pittaway et al., 2004) thereby facilitating the generation of innovative ideas (Williams et al., 2021). Consequently, they play a pivotal role in initiating changes and fostering innovation within destinations (Dias et al., 2021).

According to Antunes et al. (2023), TLEs can foster social capital and reinforce local identity, enhancing the appeal of places by providing desired engagement in local culture, environment, way of life, and traditions. However, not all scholars concur with this perspective; Ioannides and Petersen (2003), for instance, suggest that because lifestyle-led enterprises operate in weakly competitive

environments, such as rural areas, they do not have a high motivation for innovation or growth. Offering a divergent perspective, and in contrast to the prevailing belief that tourism entrepreneurs prioritize lifestyle over business growth, the research conducted by Williams et al. (2021) reveals that these individuals enter the sector driven by market opportunities and a desire to align with their personal passions. Motivated by these factors, entrepreneurs in tourism showcase innovation, business growth, and a willingness to embrace risk, challenging the idea that a mix of profit and lifestyle orientation impedes progress in innovation and expansion (Williams et al., 2021).

It appears evident that the connection between lifestyle tourism entrepreneurship and innovation is yet to be fully explored (Williams et al., 2021), and the research to date is contradictory. This is caused by the fact that lifestyle tourism entrepreneurs, being individual entities, with different characteristics, can hardly be unanimously categorized as innovative or not. The approach to how TLEs lead their businesses can be aligned with the three pillars of sustainability: economic, reflected in their entrepreneurial passion; social, represented by their sense of community; and environmental, defined by their orientation toward environmental sustainability. However, there is a lack of studies on the relationship between the attitudes of TLEs towards these three potential drivers of innovation and innovation itself.

2.2. Entrepreneurial Passion

Within the domain of entrepreneurship, where innovation, creativity, and discovery are pivotal, the role of passion becomes particularly pronounced (Cardon et al., 2017). Entrepreneurs, marked by their aptitude for identifying and capitalizing on new opportunities, often channel their pursuits through the lens of passion (Baum & Locke, 2004). Specifically, entrepreneurial passion (EP), as defined by Chen et al. (2009), is an intense affective state accompanied by cognitive and behavioral manifestations of high personal value. This passion, recognized as a central force in entrepreneurship, assumes a critical role in driving entrepreneurial action, especially amid the uncertainties and challenges associated with launching new ventures (Cardon et al., 2013). Its significance is underscored by its ability to fuel motivation, enhance mental activity, and provide meaning to daily work (Cardon et al., 2013). Furthermore, passion has been linked to fostering creativity and aiding in the recognition of new information patterns crucial for identifying and exploiting promising opportunities (Baron, 2008). As scholars emphasize the paramount importance of passion in entrepreneurial efforts (Cardon et al., 2013; Chen et al., 2009), its implications extend beyond personal satisfaction, shaping the very outcomes of entrepreneurial endeavors.

In the context of tourism lifestyle entrepreneurship, as it involves a distinctive category of entrepreneurs motivated primarily by a desire to pursue a specific lifestyle, the interplay between passion and entrepreneurial behavior gains heightened relevance (Dias et al., 2024). Indeed, their motivations often transcend the conventional economic framework, emphasizing a desire for a balanced professional and personal life (Dias et al., 2023). Lifestyle entrepreneurs within the tourism sector play a pivotal role in shaping industry dynamics. Their distinctiveness is underscored by their emphasis on contributing directly to the economic and social well-being of the community (Zhao et al., 2011). Lifestyle tourism enterprises act as links connecting travelers with socially conscious tourism providers and distinctive experiences (Ratten, 2020). Kallmuenzer et al. (2020) claim that this trend not only promotes intrapreneurship within tourism businesses but also nurtures collaborative initiatives, resulting in the co-creation of value. Nevertheless, the dichotomy between "lifestyle" and "growth-oriented" tourism entrepreneurs, often distinguished by their attitudes toward risk, emerges as a recurring theme in tourism entrepreneurship literature (Thomas et al., 2011). According to Ioannides and Petersen (2003), lifestyle entrepreneurs prioritize improving their quality of life over business growth, often rejecting expansion to minimize risk. Conversely, growth-oriented entrepreneurs are more inclined to innovate, take risks, and foster firm growth (Ioannides & Petersen, 2003).

Thus, in synthesizing the literature on tourism lifestyle entrepreneurship, passion emerges as a critical factor influencing their motivations and behaviors. This dynamic intersection between passion, lifestyle entrepreneurship, and innovation sets the stage for hypotheses that seek to explore these relationships within this specific context:

H1a) There is a linear relationship between entrepreneurial passion and innovation.
H1b) There is a quadratic relationship between entrepreneurial passion and innovation

2.3. Environmental Goals

The existing literature suggests a complex relationship between environmental sustainability orientation (ESO) and innovation in tourism lifestyle entrepreneurs. Danso et al. (2019) identified the environmental sustainability orientation as an organizational philosophy directed toward conducting activities in environmentally sustainable ways. The assessment of ESO encompasses practices, knowledge, and commitment, all aligned with fostering organizational innovation efforts. However, the prevailing research focuses on categorizing entrepreneurial motivations and delineating their characteristics (Thomas et al., 2011), thereby not delving into the exploration of how entrepreneurs'

lifestyle motivations impact sustainability innovation practices within their enterprises (Bressan & Pedrini, 2020). Initiatives to address this gap in the literature began emerging in the early 2000s when Ateljevic and Doorne observed that lifestyle tourism entrepreneurs exhibited an increasing focus on sustainability concerns (Ateljevic & Doorne, 2000). Thus, they began to theorize that personal values and beliefs play a crucial role in driving ESO among lifestyle-centered businesses. (Font et al., 2016a: 65) assert that lifestyle entrepreneurs in the tourism and hospitality industry often engage in sustainable actions due to their own empathy towards sustainability, conceptualized as the "ability to establish an emotional connection with the surrounding people and environment" (p. 65). Furthermore, Griggio and Oxenswärdh (2021) acknowledged that the intentional embrace of practices seeking to harmonize environmental conservation, social equity, and financial necessities among TLEs stems from their personal choices and habits, interwoven with economic considerations.

An additional driver for sustainable innovation, as indicated in the literature, is the attachment of TLEs to the geographic area in which they operate (Bressan & Pedrini, 2020). In contrast to conventional entrepreneurs primarily motivated by profit, lifestyle entrepreneurs place a high priority on residing in a specific place. This often translates into a strong environmental focus within their businesses, underscoring their desire to contribute positively to their surrounding (Dias et al., 2023). For instance, Griggio and Oxenswärdh (2021) research recognizes tourism lifestyle entrepreneurs in the Nordic countries as potential contributors to the development of sustainable practices, encompassing products, experiences, and strategies, aimed at conserving and promoting local natural and cultural heritage. This perspective aligns with findings indicating that small enterprises in European protected areas display heightened engagement in sustainable practices, involving ecological measures, and a broader commitment to social and economic responsibilities (Font et al., 2016b). Furthermore, Bressan & Pedrini's (2020) study highlights that the inclination of entrepreneurs towards a sustainable lifestyle is reflected in their efforts to achieve a better work-life balance, reduced waste generation, and their considerations for stakeholders and societal well-being.

Notably, the pursuit of a sustainable lifestyle motivates entrepreneurs to deploy specific technologies in their companies (Bressan & Pedrini, 2020), emphasizing the role of human capital in driving sustainable measures (Font et al., 2016b; Griggio & Oxenswärdh, 2021). Human capital encompasses entrepreneurs' knowledge, skills, and competencies, in driving sustainable practices and it is fostered to implement innovative solutions (Becker, 1964; Griggio & Oxenswärdh, 2021). Additionally, Bressan and Pedrini (2020) underscore the use of tradition-based innovation, where entrepreneurs leverage cultural heritage with innovative processes to create sustainable solutions.

However, implementing ESO faces limitations. One key challenge lies in the discrepancy between positive environmental attitudes and the scope and depth of implemented initiatives. While many small business owners in the tourism sector express support for environmental causes, their

efforts often manifest in limited actions focused primarily on cost savings (Griggio & Oxenswärdh, 2021). This phenomenon, known as the "value-action gap", highlights the difficulty in translating good intentions into significant and sustained environmental improvements (Ateljevic & Doorne, 2000; Juvan & Dolnicar, 2014; Maiteny, 2002). A significant hurdle is posed by the limited knowledge and awareness (low eco-literacy) regarding environmental issues and best practices (Alonso-Almeida et al., 2018; Griggio & Oxenswärdh, 2021). This lack of understanding, coupled with "resistant forces" such as resource constraints and operational challenges, hinders the efficient application of environmental sustainability practices (Juvan & Dolnicar, 2014; Tilley, 1999). Thus, small businesses often struggle to navigate the complexities of implementing sustainable measures, lacking the necessary expertise and resources to overcome these challenges. Indeed, the effectiveness of sustainable strategies depends heavily on the entrepreneurs' social and cultural capital (Font et al., 2016b; Griggio & Oxenswärdh, 2021). This includes their networks, knowledge, and values related to environmental sustainability. Weaknesses in these areas can compromise the implementation of effective and sustainable practices. For instance, limited social capital, characterized by a lack of strong networks and collaboration with other stakeholders, can restrict access to resources and knowledge sharing, preventing the development and implementation of innovative and impactful sustainability initiatives (Font et al., 2016b).

Furthermore, the financial context of many small businesses presents a significant barrier to ESO implementation. These businesses often grapple with issues of profitability, long-term survival, and securing capital investments (Bressan & Pedrini, 2020). The initial costs associated with implementing sustainable practices, such as energy-efficient upgrades or waste reduction initiatives, can pose a significant financial burden for these businesses, leading to hesitation in embracing sustainability measures (Font et al., 2016b; Testa et al., 2016). The motivational factors driving ESO implementation in micro and small businesses also differ from those in larger firms. Unlike large corporations driven by external factors like investor expectations and regulations, tourism lifestyle businesses are primarily motivated by personal satisfaction and a sense of responsibility towards the environment (Testa et al., 2016). While this intrinsic motivation is extremely relevant, it may not always translate into consistent and impactful sustainable practices. The personal commitment of individual entrepreneurs may not always be sufficient to overcome the aforementioned challenges, potentially hindering the long-term sustainability of their efforts (Griggio & Oxenswärdh, 2021).

However, other studies such as Marchant and Mottiar (2011) and Font et al. (2016b) found that entrepreneurs who actively pursue a sustainable lifestyle demonstrate a more consistent approach to developing and implementing sustainable innovations. These studies suggest that a strong personal commitment to sustainability can overcome limitations and lead to a positive association with innovation.

Based on this review of the literature, we propose the following hypotheses:

H2a) There is a linear relationship between environmental sustainability orientation and Innovation

H2b) There is a quadratic relationship between environmental sustainability orientation and innovation.

2.4. Sense of Community

The role of the community in influencing the innovation of entrepreneurs, particularly in the context of tourism, has been a subject of much debate in the literature. While some studies highlight the positive impact of community involvement on innovation and success, others point to potential drawbacks and nuances that deserve consideration.

Several studies support the notion that a strong sense of community (SOC) can be a powerful driver of innovation for TLEs. As Sarason (1974) defines it, "sense of community" refers to the feeling of belonging and shared identity within a group. For TLEs, this sense of belonging can be fostered through networks within both the tourism sector and the broader community. This, as Dias et al. (2023) suggest, plays a pivotal role in shaping their identity, business vision, and ultimately, the development of tourist destinations. The positive impact of these connections extends beyond just belonging. Fu et al. (2019) emphasize how strong community connections and a sense of place can significantly enhance overall life satisfaction, which directly contributes to business success for TLEs. This resonates with the very essence of lifestyle tourism entrepreneurship, driven by the desire for a specific quality of life intertwined with a particular place, social networks, and deep integration with the local community (Schilar & Keskitalo, 2018). Furthermore, regions that actively foster community involvement, supportive environments, and encouraging policies can attract TLEs and nurture their entrepreneurial journey (Dias et al., 2023).

This interconnectedness between community dynamics and entrepreneurial success is further explored by Dias et al. (2021) They suggest that community attachment, facilitated by a strong local context, encourages entrepreneurs to stay and invest in the area. This, in turn, fosters co-creation, diminishes work-life boundaries inherent to TLEs (Sun & Xu, 2020), and opens doors to valuable insights into visitor needs and preferences. Being part of the community also allows TLEs to stay attuned to novel trends and translate them into innovative offerings for their clientele (Dias et al., 2021). This not only showcases the unique qualities of the territory but also guards its traditions and generates social value (Splendiani et al., 2023). Ultimately, the innovative products and services

developed by TLEs often find their way into the broader tourism industry, contributing to its sustainable development and competitiveness (Dias et al., 2021; Griggio & Oxenswärdh, 2021).

While the positive influence of a sense of community on TLEs and innovation is evident, it is crucial to acknowledge potential drawbacks and complexities. A strong sense of community might, in some cases, lead to homogeneity of thought, hindering the diversity of perspectives necessary for breakthrough innovation. Additionally, tight-knit communities can exert social pressure to conform, discouraging entrepreneurs from venturing outside established practices. This is particularly relevant in tourism, where cultural preservation often plays a significant role.

Integrating the concept of social capital further enriches this discussion. As Bourdieu and Wacquant (1992) define it, social capital refers to an individual's existing and potential networks of relationships, acting as a crucial factor in economic performance and collaborative action. In the context of TLEs, strong social capital within the community can facilitate knowledge sharing and co-creation, fostering innovation. However, Griggio and Oxenswärdh (2021) emphasize the challenge of gaining entry into communities. Only highly integrated community members (e.g. those rooted within it for several generations) can attain the level of trust and community involvement essential to fully leverage the potential benefits of social capital (Griggio & Oxenswärdh, 2021). Furthermore, research by Shaw and Williams (2009) cautions that knowledge transfer within these communities can be limited by shared worldviews, potentially impeding the emergence of new ideas. This suggests that while social capital within the community is valuable, TLEs might also need to actively seek diverse perspectives and knowledge sources beyond their immediate network to fully sustain innovation.

In summary, some studies highlight the benefits of community in providing support, resources, and knowledge that fuel innovation, while others acknowledge that the type of social capital within the community might moderate the relationship between sense of community and innovation.

Considering the literature and the potential complexities involved, we propose two hypotheses:
H3a) There is a positive linear relationship between sense of community and innovation
H3b) There is a quadratic relationship between sense of community and innovation

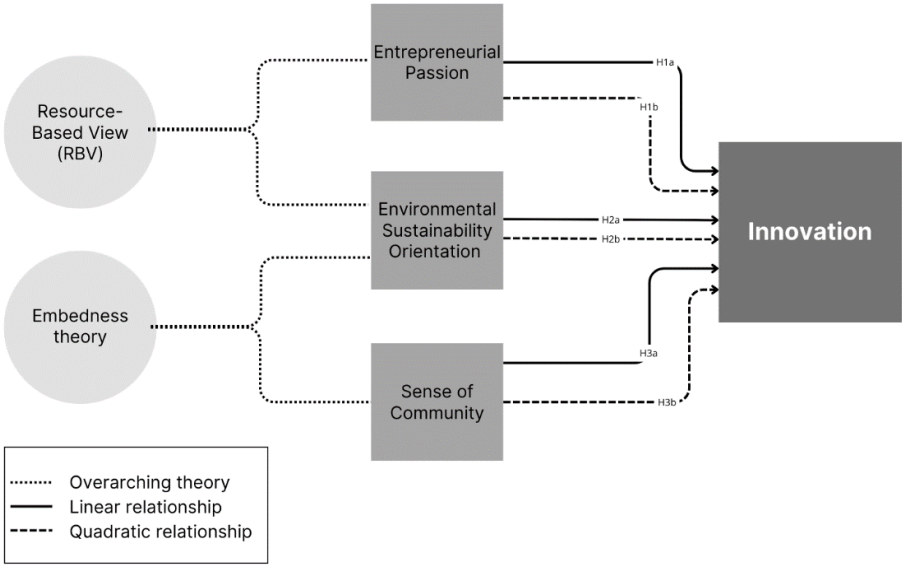


Figure 2.1 *shows the conceptual model and hypotheses.*

CHAPTER 3

Methodology

3.1. Data collection

A stratified sampling approach was employed to select participants for this study. A commercial list of tourism businesses located in the central region of Portugal was obtained, and businesses were categorized based on relevant criteria (e.g., size, type, and location). A proportionate number of businesses were randomly selected from each stratum to ensure representation of the diverse tourism landscape in the region. Selected businesses were contacted via email and invited to participate in the study. Respondents were provided with a link to an online survey that included questions about their lifestyle orientation, business practices, and personal motivations. Participation was voluntary and anonymous, and respondents were assured of the confidentiality of their responses.

The development of the questionnaire followed a three-step process. Initially, a preliminary version was created by integrating and modifying existing scales after conducting an extensive literature review. Subsequently, this version was examined by a panel of academic experts specializing in tourism and entrepreneurship. Finally, a refined questionnaire underwent pre-testing with 8 Tourism Lifestyle Entrepreneurs through structured face-to-face interviews. This validation step aimed to ensure clarity, survey design accuracy, and the elimination of any inaccuracies or ambiguities.

Out of the 310 responses received, 289 valid responses were retained after excluding incomplete questionnaires. The final sample consisted of predominantly male participants (61%). Regarding experience in their current business, 29% of respondents reported 3 years or less, 46% reported 4 to 10 years, 11% reported 11 to 20 years, and the remaining 14% of respondents reported over 21 years of experience. Furthermore, the majority of enterprises (76%) had up to 5 employees, 23% had between 5 and 9 employees, and the remainder had 10 or more employees.

3.2. Variables

This research utilized existing scales to assess all variables. The sense of community and entrepreneurial passion were measured using three items, adapted respectively from Oh et al. (2014) and Cardon et al. (2013). The environmental sustainability orientation was measured using a six-item scale adapted from Rehman et al. (2022). Three items, adapted from Hughes & Morgan's (2007) work, were employed to measure the innovation of TLEs. The sense of community and innovation were

measured employing a Likert-type scale with seven points. The former ranged from (1) representing "definitely false" to (7) indicating "definitely true", and the latter from “strongly disagree” (1) to “strongly agree” (7). Environmental sustainability orientation and entrepreneurial passion employed a five-Likert scale to measure the variables. In particular, entrepreneurial passion was measured by analyzing two dimensions, namely intense positive feelings and identity centrality, within the context of three domains: inventing, founding, and developing. The scale was anchored by (1) “strongly disagree” and (5) “strongly agree” (Cardon et al., 2013).

3.3. Common method bias

The reliance on a single data source in this investigation raises concerns about potential bias. Such bias could adversely affect the accuracy of data analysis used for hypothesis testing, highlighting the need for mitigation strategies. As such, we tested for Harman's single-factor test (Podsakoff et al., 2012) and marker variable analysis (Simmering et al., 2015) to assess potential bias. The results of Harman's single-factor test revealed that the first factor accounted for 37.4% of the total variance, which is below the 50% threshold. This suggests that common method variance was not a significant concern in this study. For the marker variable analysis, we used ‘marketing capabilities’ as a marker variable and included it in the model. The R2 change was 2%, under the threshold of 10% (Malhotra et al., 2020), indicating that CMV is not present in the data.

3.4. Data analysis

Structural equation modeling (SEM) was chosen as the primary analytical approach to assess the conceptual model proposed in this study. Specifically, partial least squares (PLS), a variance-based SEM technique, was utilized due to its suitability for exploring complex relationships among latent variables with relatively smaller sample sizes (Ringle et al., 2024). PLS-SEM is particularly advantageous in situations where the model is complex, and the focus is on prediction rather than on testing theory (Hair et al., 2022). PLS-SEM was deemed appropriate as it accommodates both reflective and formative measurement models, allowing for the inclusion of latent constructs measured by multiple indicators (Hair et al., 2022). In our study, constructs such as entrepreneurial passion, environmental sustainability orientation, sense of community, and innovation were measured using multiple indicators, making PLS-SEM a suitable choice. Moreover, PLS-SEM is effective in handling small sample sizes, as it relies on bootstrapping techniques to estimate standard errors and assess the significance

of parameter estimates (Hair et al., 2022). Thus, our sample of 205 Portuguese and Spanish tourism lifestyle entrepreneurs justified the use of PLS-SEM to ensure robust and reliable results.

After establishing the individual relationships between the constructs using PLS-SEM, we recognized the need to further understand their interplay and collective effects in driving innovation. Hence, fuzzy-set qualitative comparative analysis (fsQCA) was employed as a complementary analytical technique to provide deeper insights into the configurations of conditions leading to innovation among tourism lifestyle entrepreneurs. fsQCA was chosen for its ability to capture complex, non-linear relationships and identify configurations of conditions that collectively lead to a particular outcome (Rihoux & Ragin, 2008). This technique accommodates asymmetric and non-linear relationships, which are common in social science research (Rihoux & Ragin, 2008) and it allows for the examination of multiple combinations of conditions leading to the same outcome. Therefore, it acknowledges the complexity and context-dependency of causal relationships (Herrera, 2016). It is also particularly well-suited for analyzing small datasets, making it suitable for our sample (Woodside, 2013).

CHAPTER 4

Results

We employed structural equation modeling (SEM) to assess our conceptual model. Specifically, we utilized partial least squares (PLS), a variance-based structural equation modeling technique, through the use of SmartPLS 4 software (Ringle et al., 2024). Our evaluation of the measurement model involved scrutinizing individual indicators for reliability, convergent validity, internal consistency reliability, and discriminant validity, as outlined by Hair et al. (2022). The findings revealed that all items had standardized factor loadings above 0.6 (with a minimum value of 0.791), signifying significant results at $p < 0.001$ and providing substantial support for individual indicator reliability (Hair et al., 2022).

Verification of internal consistency reliability was achieved by confirming that Cronbach alphas and composite reliability (CR) values for all constructs surpassed the established threshold of 0.7 (refer to Table 4.1) (Hair et al., 2022). Convergent validity was established through three key observations. First, all items displayed positive and significant loadings on their respective constructs. Second, CR values for all constructs exceeded 0.70. Third, the average variance extracted (AVE) for all constructs surpassed the 0.50 threshold (Bagozzi & Yi, 1988), as indicated in Table 4.1.

Table 4.1 *Composite reliability, average variance extracted, correlations, and discriminant validity checks.*

	α	CR (rho_a)	CR (rho_c)	AVE	1	2	3	4
Sense of Community	0,852	0,875	0,909	0,769	**0,877**	0,399	0,696	0,630
Entrepreneurial Passion	0,912	0,927	0,938	0,791	0,364	**0,889**	0,520	0,493
Innovation items	0,922	0,922	0,950	0,865	0,631	0,483	**0,930**	0,441
Environmental Sustainability Orientation	0,943	0,948	0,955	0,779	0,560	0,456	0,413	**0,883**

Note: a - Cronbach Alpha, CR - Composite Reliability, AVE - Average Variance Extracted. Bolded numbers represent the square roots of AVE. Diagonal: Construct correlations; Above diagonal: HTMT ratios.

Discriminant validity was examined using two methods. Firstly, the Fornell and Larcker criterion required that the square root of AVE (highlighted on the diagonal in Table 4.1) be greater than the highest correlation with any other construct (Fornell & Larcker, 1981). The Table demonstrates that this criterion was met for all constructs. Secondly, the heterotrait-monotrait ratio

(HTMT) criterion (Hair et al., 2022) was applied. Table 4.1 illustrates that all HTMT ratios remained below the more conservative threshold of 0.85 (Hair et al., 2022), providing additional confirmation of discriminant validity.

The evaluation of the structural model involved examining the sign, magnitude, and significance of the structural path coefficients, alongside assessing the R^2 value for the endogenous variable as an indicator of the model's predictive accuracy. Stone-Geisser's Q^2 values were utilized as an indicator of the model's predictive relevance, following the approach outlined by Hair et al. (2022). A preliminary step involved checking for collinearity before delving into the assessment of the structural model (Hair et al., 2022). The VIF values ranged from 1.844 to 2,888. All values were below the indicative critical value of 5 (Hair et al., 2022). These values indicated no collinearity. The R^2 coefficient for the endogenous variable (innovation items) was 52.1%, exceeding the established threshold of 10% (Falk & Miller, 1992). Furthermore, the Q^2 value for innovation items was 0.482, which being above zero indicated the predictive relevance of the model. To assess the significance of parameter estimates, we employed bootstrapping with 5,000 subsamples (Hair et al., 2022).

Table 4.2 *Structural model assessment.*

Path	Path coefficient	Standard deviation	t statistics	p values
Sense of Community → TLEs Innovation items	0,505	0,066	7,682	0,000
Entrepreneurial Passion *squared* → TLEs Innovation items	-0,120	0,036	3,316	0,001
Environmental Sustainability Orientation *squared* → TLEs Innovation items	0,201	0,048	4,234	0,000
Entrepreneurial Passion → TLEs Innovation items	0,123	0,090	1,368	0,171
Environmental Sustainability Orientation → TLEs Innovation items	0,133	0,069	1,924	0,054
Sense of Community *squared* → TLEs Innovation items	-0,024	0,057	0,416	0,678

Hypothesis 3a proposed that sense of community has a positive linear relationship with lifestyle entrepreneur innovation items. The results shown in Table 4.2 indicate that this hypothesis was supported since the estimated path coefficient β1 is positive and significant (β1 = 0,505 ; p < 0.01). The results also support H1b and H2b, which postulated a quadratic relationship between entrepreneurial passion, environmental sustainability orientation, and lifestyle entrepreneur innovation items.

The estimated coefficient of environmental sustainability orientation on lifestyle entrepreneur innovation items β3 is also significant (β = 0,201; p < 0.001), but positive and therefore described by a U-shaped function. Thus, when the environmental sustainability orientation of TLEs is extremely low or extremely high, they will exhibit a high degree of innovation items. Conversely, at medium levels of TLEs' environmental sustainability orientation, their innovation items will be at their lowest.

For the second part of our study, we analyzed the data using fuzzy-set qualitative comparative analysis (fsQCA). QCA aims to capture the intricacies of each case while offering a degree of generalization (Rihoux & Ragin, 2008). This technique allows for the exploration of complex causal relationships within individual cases, revealing underlying patterns or configurations. Fuzzy-set QCA accommodates multiple variable combinations leading to the same outcome, making it preferable for analyzing our asymmetrical and non-linear data (Herrera, 2016; Woodside, 2013). Instead of concentrating on how individual independent variables correlate with the outcome, FsQCA identifies patterns of causal factors that collectively lead to the result. Hence, it can identify which combinations of the analyzed antecedents of innovation can result in either high or low outcomes.

The fsQCA analysis consists of four steps:

The initial step involves calibrating the original data into an interval scale (ranging from 0 = non-membership to 1 = full membership) using the 'calibration method' (Ragin, 2009). Moving forward, the investigation delves into identifying necessary conditions, which are those variables that must always be present for the outcome to occur. A necessity analysis was conducted with all condition variables using a conservative consistency threshold of 0.90 (Ragin, 2009). The results revealed that none of the variables reached a consistency score of 0.90, indicating the absence of necessary conditions for innovation (Innov) in most configurations (see Table 4.3). However, entrepreneurial passion (Epassion) with a score of 0.83 emerged frequently.

Table 4.3 *Analysis of necessary conditions (Outcome variable: Innovative Items [Innov] and ~Innovative Items [~Innov]).*

Variables	Consistency	Coverage
Sense of Community	0.787922	0.752673
Entrepreneurial Passion	0.825936	0.749160
Environmental Sustainability Orientation	0.758585	0.788076
~ Sense of Community	0.693643	0.734336
~ Entrepreneurial Passion	0.672775	0.765615
~ Environmental Sustainability Orientation	0.758624	0.726457

Consistency threshold < 0.90 indicates no necessary conditions; coverage indicates the relative empirical weight of a condition (somewhat comparable to 'explained variance'); (Rihoux & Ragin, 2008; Schneider & Wagemann, 2012)

Subsequently, the analysis transitions to examining sufficient causal conditions through a truth table analysis. This encompasses all possible combinations of the three condition variables with a frequency threshold of 15 and a consistency threshold of 0.874 (Ragin, 2009). The goal is to identify parsimonious solutions that provide consistent paths leading to the emergence of innovation items (Innov). The most parsimonious solution for the initial model (f(SOC, Epassion, ESO)) yielded three paths.

The final step involves interpreting the identified paths and determining which cases correspond to each solution. The aim is to select solutions with the highest coverage, consistency, and minimal number of conditions. The model exhibited high consistency (0.788) and coverage (0.819). Each path shown in Table 4.4 represents a distinct strategy employed by tourism lifestyle entrepreneurs to achieve innovation. The terminology 'must be present' and 'must be absent' indicates the relevance of conditions for the emergence of outcomes within specific configurations, while 'does not matter' suggests condition irrelevance.

Table 4.4 *Configurations explaining outcomes of innovation (parsimonious solution).*

Solution	Causal conditions			Descriptives		
	Entrepreneurial Passion	Sense of Community	Environmental Sustainability Orientation	Raw coverage	Unique coverage	Consistency
1	●	●		0.697666	0.0925527	0.835033
2		●	●	0.651849	0.0467358	0.847295
3	●		●	0.680082	0.0749685	0.848726
4	○	○		0.697666	0.0925527	0.835033
5		○	○	0.651849	0.0467358	0.847295
6	○		○	0.680082	0.0749685	0.848726
Model	Total Innov Solution coverage: 0.81937 Solution consistency: 0.788474	Total ~ Innov Solution coverage: 0.739904 Solution consistency: 0.775878				

Model: Innov = f (Epassion, SOC, ESO); ~ Innov = f (~Epassion, ~SOC, ~ESO)
Cell: ● = must be present; ○ = must be absent (~); no sign = does not matter (ambiguous).

CHAPTER 5

Discussion

Based on current literature, TLEs have been acknowledged for their ability to stimulate innovation within their local contexts. It has become evident that, in line with the resource-based view, their pursuit of interests beyond mere economic gain cultivates unique skills and attributes, facilitating the development of innovative business models, products, and services. Similarly, aligned with embeddedness theory, their ability to build relationships and connections within local communities, coupled with their attachment to the territories where they operate, makes them attuned to changes and receptive to new opportunities.

However, to date, the antecedents of TLEs' innovation have not been analyzed to comprehend their impact on innovative outcomes and their optimal effectiveness. From our study, it emerges how it is crucial to recognize that TLEs do not constitute a homogenous category of business owners. Rather, their attitudes towards entrepreneurial passion, sense of community, and environmental sustainability orientation vary significantly. Thus, the scope of this research is to identify what approaches lead to innovation. To better illustrate this concept, the attitude of TLEs towards the three variables can be understood as their innovation DNA, adapting the notion from Sørensen & Grindsted (2021). Each DNA profile represents the factors that influence how a TLE makes decisions and runs its business. It sheds light on the diverse strategies employed to address the limitations and challenges they encounter, ultimately impacting their capacity for innovation. In this frame, our research identified three archetypical DNAs that lead to innovation: they represent broad categories of TLEs, as each DNA is not meant to depict specific individuals, but their generalized tendencies.

Before determining these three profiles, the impact of each variable on innovation was individually analyzed. The quadratic regression analysis reveals non-uniform patterns, which indicates that different conditions of entrepreneurial passion, environmental sustainability orientation, and sense of community are associated with varying levels of innovation. The structural equation modeling findings are noteworthy for demonstrating the linearity of SOC and non-linearity of EP and ESO, thereby elucidating the presence of optimal points within the observed relationships. This knowledge is fundamental for destination management organizations (DMOs) to align their objectives to the ones of TLEs and to foster firm and innovation development.

The findings of this study underscore the critical role of entrepreneurial passion in driving innovation among lifestyle tourism entrepreneurs (Dias et al., 2024). Building upon the existing literature, this research demonstrates that entrepreneurial passion, marked by strong emotional and

cognitive elements, has a substantial impact on both entrepreneurial behavior and the generation of innovative ideas. It notes that the relationship between entrepreneurial passion and innovation among TLEs follows an inverted U-shaped function, with moderate levels of passion leading to peak innovation. Ioannides and Petersen (2003) provide insight into the connection between EP levels and innovation outcomes among TLEs. Their research emphasizes how lifestyle-oriented enterprises prioritize enhancing their personal well-being over pursuing business growth. Operating in less competitive settings, these enterprises lack strong incentives for innovation or expansion. Thus, they suggest that low levels of entrepreneurial passion result in a lack of motivation for innovation and growth within lifestyle-led enterprises. This aligns with this study's findings, indicating that a deficiency in EP correlates with diminished innovation efforts.

Nevertheless, Williams et al. (2021) disagree with the common belief that tourism entrepreneurs fully prioritize lifestyle over business growth. Their research shows that lifestyle entrepreneurs in the tourism sector, driven by a combination of market opportunities and personal passions, exhibit high levels of innovation. This observation highlights the significance of moderate levels of EP, which stimulate innovation while balancing lifestyle priorities. Similarly, Zhao et al. (2011) underscore the distinctive nature of TLEs, noting their dedication to directly contribute to the economic and social welfare of the community. The attention to community well-being reflects the entrepreneurial passion that drives innovation efforts among TLEs. However, this research also reveals the existence of a limit to the level of passion that fosters innovation. The results suggest that an excessive focus on entrepreneurial passion, such as prioritizing the founder's identity and nurturing and growing the business at all costs, can lead to a reluctance to embrace new methods or improvements. This can impede innovation by causing the business to become entrenched in its current practices, which can result in missed opportunities for growth and advancement. Excessive entrepreneurial passion may also result in losing sight of reality and practicality, ultimately leading to an inability to effectively adopt new methods.

The analysis also delves into the relationship between environmental sustainability orientation and innovation among TLEs. The dissertation's quantitative findings reveal a U-shaped function, indicating that extreme levels of ESO (either low or high) are associated with high levels of innovation. Existing research predominantly focuses on categorizing entrepreneurial motivations and outlining their attributes (Bressan & Pedrini, 2020; Thomas et al., 2011). Therefore, our study contributes to bridging the gap in understanding how entrepreneurs' lifestyle motivations influence sustainability innovation practices within their businesses. The findings of the research, highlight the impact of intrinsic motivations on sustainability innovation practices within TLEs. This supports Bressan & Pedrini's (2020) research, which suggests that personal values and beliefs play a crucial role in driving ESO among lifestyle-centered businesses. They find that entrepreneurs who prioritize sustainable

living tend to seek a balance between work and personal life, aim to reduce waste, and prioritize the well-being of stakeholders and society. This aligns with the discovery that higher levels of effort towards ESO correlate with elevated levels of innovation. Another key element in understanding this relationship emerges from Font et al. (2016b) and Griggio and Oxenswärdh (2021) who emphasize the importance of social and cultural capital in facilitating the implementation of sustainable practices. Weaknesses in these areas can compromise sustainability efforts and hinder innovation. Thus a low attitude towards ESO results in low innovation. Furthermore, TLEs often face financial challenges when implementing sustainable practices, leading to hesitation in embracing sustainability measures (Bressan & Pedrini, 2020). Hence, a moderate level of environmental sustainability orientation does not yield impactful results. As discussed earlier, motivation is pivotal in the correlation between ESO and innovation for TLEs. Testa et al. (2016) point out that while larger corporations are incentivized by external factors such as investor demands and interests, tourism lifestyle entrepreneurs are predominantly motivated by personal fulfillment and environmental responsibility. However, despite this intrinsic drive, inconsistent and ineffective sustainability practices may impede long-term sustainability efforts and overall survivability. Consequently, businesses with low ESO, prioritizing other factors over sustainability, may achieve greater levels of innovation compared to those with a moderate ESO, which may not result in significant innovation outcomes. However, Marchant & Mottiar (2011) and Font et al. (2016b) demonstrate that a strong personal commitment to sustainability can overcome limitations and lead to increased innovation.

The research's results also reveal a noteworthy positive correlation between a strong sense of community and innovation among TLEs. This alignment with existing literature emphasizes the substantial impact of community involvement on entrepreneurship, particularly within the dynamic context of tourism. Strong community ties provide support, resources, and knowledge, fostering innovation (Pittaway et al., 2004; Williams et al., 2021). Dias et al. (2023) highlight the pivotal role of community networks in shaping the identity and vision of tourism lifestyle businesses, contributing to their innovative efforts. However, our results do not align with Shaw and Williams' (2009) caution that knowledge transfer within communities can be limited by shared worldviews, hindering the emergence of new ideas. Although this is a potential and relevant obstacle, from our research it appears that a sense of connection, intimacy, and contact with individuals from the local community incentivizes innovation. The positive correlation between a sense of community and innovation further validates the concepts proposed by Griggio & Oxenswärdh (2021) and Dias et al. (2021) suggesting that highly integrated community members can fully leverage social capital for innovation. Engaging with the community helps TLEs stay updated on trends, translating them into innovative services for customers. These results mirror the findings of Fu et al. (2019) which demonstrates how strong community ties and a sense of belonging can significantly enhance overall life satisfaction. This, in turn,

directly contributes to the success and innovativeness of businesses within the TLEs, emphasizing the significance of being firmly rooted in the community.

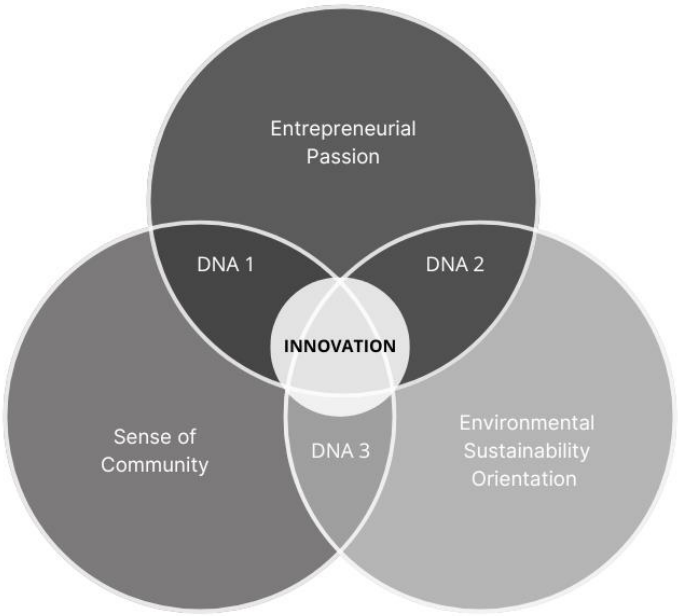


Figure 5.1 *shows the innovation DNAs of TLEs. DNA 1 refers to the Embedded, DNA 2 to the Eco-preneurs, and DNA 3 to the Sustainability centered.*

The three innovation DNAs were then identified through a correlational analysis of the configurations of TLEs' attitudes that result in innovative outcomes:

1. DNA 1 – Embedded (SOC-EP):

The first innovation DNA comprises EP and SOC. Combining these two constructs creates a fertile environment for innovation in tourism lifestyle entrepreneurship. Passionate entrepreneurs who feel deeply connected to their community are more likely to be committed to improving their local environment and creating value for residents and visitors alike. As it emerges from the qualitative correlation of our sample, entrepreneurial passion plays a significant role in driving innovation. In line with Dias et al.'s (2024) research, our findings indicate that while other factors may suffice for fostering social innovation, entrepreneurial passion is almost necessary. This suggests that without a passion for entrepreneurship, the likelihood of achieving significant innovations within tourism enterprises is reduced. Indeed, TLEs with higher levels of self-efficacy, driven by their passion for their businesses, are more adept at identifying opportunities that lead to social innovations beneficial to the community.

This underscores the pivotal role of passion in recognizing and capitalizing on opportunities for social change within the tourism sector (Dias et al., 2024). Moreover, community connections provide entrepreneurs with valuable resources, support networks, and diverse perspectives, which can fuel creativity and innovation. By being deeply integrated into the community, entrepreneurs gain access to tacit knowledge, local insights, and collaborative opportunities that enable them to develop innovative products and services that showcase the unique qualities of their territories. The interconnectedness between community dynamics and entrepreneurial success highlights the role of community support in fostering innovation and value creation within the tourism sector (Dias et al., 2021; Griggio & Oxenswärdh, 2021). The emotional support and sense of belonging derived from the community can sustain entrepreneurial passion through the inevitable challenges and setbacks encountered in the innovation process. Passion drives creativity, business orientation, and persistence, while community connections provide resources, support, and diverse perspectives necessary for developing innovations that often find their way into the broader local tourism industry, contributing to its sustainable development and competitiveness.

2. DNA 2 - Eco-preneurs (ESO-EP):

Entrepreneurial passion also emerges as a driver of innovation in combination with environmental sustainability orientation. Entrepreneurs that have DNA 2, with both a strong ESO and EP, are uniquely positioned to drive sustainable innovation. Their passion fuels their drive to address environmental challenges and develop innovative solutions that align with their values and beliefs (Font et al., 2016b). Passion's role as an enabler of creativity stimulates entrepreneurs to generate novel ideas for sustainable products, services, and strategies that contribute to environmental conservation and societal well-being (Baron, 2008; Danso et al., 2019). Moreover, the intense affective state of entrepreneurial passion motivates entrepreneurs to overcome obstacles and persist in implementing sustainable practices, despite issues such as limited resources, and financial constraints (Cardon et al., 2013; Griggio & Oxenswärdh, 2021). In fact, it ensures that environmental sustainability is addressed while meeting economic needs (Baron, 2008). Eco-preneurs integrate sustainability practices into their lifestyle choices and business operations, driven by both personal fulfillment and a sense of responsibility towards the environment (Griggio & Oxenswärdh, 2021). While they may prioritize lifestyle considerations over business growth, their entrepreneurial passion compels them to innovate and seek sustainable solutions that contribute to the well-being of their communities and environments (Ioannides & Petersen, 2003). In this regard, the combination of ESO and EP also helps in addressing the challenges of the "value-action gap" and the limited eco-literacy identified by Griggio and Oxenswärdh (2021). It fosters persistent efforts to translate good intentions into significant and

sustained environmental improvements. Thus, in tourism lifestyle entrepreneurship, where entrepreneurs prioritize improving their quality of life alongside business endeavors, entrepreneurial passion serves as a driving force for sustainable innovation (Dias et al., 2023, 2024).

3. DNA 3 – Sustainability-centered (ESO-SOC):

As observed, entrepreneurial passion significantly contributes to fostering innovation among TLEs. Nevertheless, the findings from the fsQCA results suggest that leveraging sense of community and environmental sustainability orientation enables the attainment of innovation, even in the absence of such passion. Indeed, sustainability-centered TLEs, connected to their communities and attentive to the environment are more likely to integrate sustainable practices into their businesses as a means of positively contributing to their surroundings (Bressan & Pedrini, 2020). As a result these entrepreneurs often prioritize environmental conservation, social equity, and community well-being (Griggio & Oxenswärdh, 2021). The attachment of TLEs to their geographic area further drives sustainable innovation, as they seek to conserve and promote local natural and cultural heritage (Bressan & Pedrini, 2020). This aligns with the community's interests and values, fostering collaboration and support for sustainable initiatives. Moreover, a strong sense of community provides entrepreneurs with social capital, facilitating knowledge sharing and collaboration necessary for implementing innovative measures (Griggio & Oxenswärdh, 2021). Entrepreneurs integrated into their communities can leverage social networks to overcome challenges and drive sustainable innovation. Their community connections provide access to resources, knowledge, and support necessary for implementing effective and sustainable practices. Furthermore, the social and cultural capital embedded within communities enables TLEs to navigate financial constraints and implement sustainable initiatives that align with community values and interests (Font et al., 2016b). This intrinsic motivation, combined with community support, drives consistent and impactful sustainable practices. Thus, DNA 3 fosters innovation in tourism lifestyle entrepreneurship by aligning personal values with community interests, leveraging social capital, and overcoming challenges through collaboration and knowledge sharing. Hence, it compensates for the absence of entrepreneurial passion, as this integrated approach enables entrepreneurs to develop and implement sustainable solutions that contribute to environmental conservation, social equity, and community well-being, all while ensuring economic viability.

Combining the insights gathered from both the quantitative and qualitative comparative studies allows a deeper understanding of the factors influencing innovation and how they operate. Cultivating optimal levels of these innovation antecedents and identifying innovation DNAs yields numerous implications for entrepreneurs, policymakers, and destination management organizations (DMOs).

This knowledge serves as a foundational framework not only for comprehending the innovation processes among lifestyle tourism entrepreneurs and their impact on tourism development within their regions but also for addressing and mitigating setbacks and adversities faced by small businesses. Additionally, it sheds light on the specific skills and attitudes that local administrations and DMOs should prioritize in fostering successful sustainable growth and innovation within the tourism sector.

Conclusion and implications

The research examines how lifestyle tourism entrepreneurs' attitudes towards sense of community, entrepreneurial passion, and environmental sustainability orientation influence innovative outcomes within the tourism sector. The findings present several significant theoretical and practical implications for understanding the dynamics of lifestyle tourism entrepreneurship and its relationship with innovation.

From a theoretical perspective, this study contributes to the resource-based view, embeddedness theory, and - as it emerges from the discussion - to social exchange theory by exploring the heterogeneous nature of TLEs and identifying the nuanced relationships between EP, ESO, SOC, and innovation. Despite recognizing LTEs' innovativeness, previous studies have not explored how these entrepreneurs combine their diverse skills and goals. This research highlights the complex interplay of motivations and approaches that drive innovation within this sector, demonstrating that TLEs are not a monolithic category but encompass a spectrum of attitudes and behaviors that shape their entrepreneurial endeavors and innovative outcomes. The study contributes to the resource-based view illustrating how TLEs' pursuit of interests beyond economic gain cultivates unique skills and attributes, fostering the development of innovative business models, products, and services. Eco-preneurs' passion motivates them to overcome obstacles and ensures the persistence of sustainable practices despite challenges like limited resources and financial constraints. Their ability to integrate sustainability into their business operations exemplifies how internal resources are strategically utilized to enhance innovative capabilities, which aligns with resource-based theory. Embeddedness theory is underscored in TLEs' ability to build relationships and connections within local communities, making them attuned to changes and receptive to new opportunities. This research contributes to defining the significance of social and cultural capital in facilitating innovation, particularly for embedded and sustainability-centered entrepreneurs. It highlights how these forms of capital are embedded within communities, and enable the implementation of sustainable practices despite challenges. This intrinsic motivation, coupled with robust community support, empowers such entrepreneurs to navigate obstacles and develop sustainable solutions that enhance both economic viability and local community development. Leveraging community connections, these entrepreneurs innovate products and services tailored to local needs and preferences. This collaborative effort not only drives innovation but also strengthens community bonds, underscoring the reciprocal nature of social exchanges. The alignment with social exchange theory is further evidenced by the positive correlation observed between sense of community and innovation, emphasizing the pivotal role of social networks and relationships in resource exchange innovation.

From a practical standpoint, the findings hold significant implications for destination management organizations (DMOs) and firms operating within the tourism industry. The alignment between DMOs' agendas and TLEs' motivations is crucial for fostering innovation and sustainable development, enhancing the attractiveness of destinations. Understanding TLEs' varying motivations and priorities enables DMOs to tailor their strategies and initiatives to better support and collaborate with these entrepreneurs. Recognizing the importance of EP, ESO, and SOC in driving innovation among TLEs, DMOs can design programs and policies that incentivize and facilitate sustainable innovation within the tourism sector. For tourism firms, the study provides valuable insights into the antecedents of innovation. Recognizing the role of EP, ESO, and SOC in shaping innovative outcomes can inform strategic decision-making, resource allocation, and business development efforts. By cultivating a deeper understanding of the interplay between these factors, firms can leverage their unique strengths and capitalize on opportunities for innovation and growth. Optimal levels of EP, ESO, and SOC are critical for driving innovation and achieving sustainable business outcomes.

This study, while methodologically rigorous, presents limitations that deserve consideration for future research. As seen, the reliance on a commercial list for sampling introduces potential selection bias, suggesting future investigations could incorporate multiple sampling methods to ensure a more representative sample of tourism businesses. Moreover, focusing solely on the central region of Portugal limits the generalizability of findings. Future studies could expand to include diverse geographic regions to capture broader insights into tourism entrepreneurship. Lastly, the cross-sectional nature of this study limits the ability to infer causality, conducting longitudinal studies could offer insights into the dynamic relationships between entrepreneurial motivations, practices, and outcomes over time.

In conclusion, this research underscores the critical role of entrepreneurial passion, environmental sustainability orientation, and sense of community in driving innovation among lifestyle tourism entrepreneurs. The SEM results, which highlight the non-linear relationships among these factors, revealed the existence of optimal points that contribute to innovation. However, these results alone did not fully explain the complex interdependencies among EP, ESO, and SOC, necessitating the complementary use of fuzzy-set qualitative comparative analysis (fsQCA). With the integration of fsQCA, this study identifies different DNAs and provides a deeper understanding of how these elements work together synergistically. This dual approach—recognizing both non-linear relationships and segment-specific interactions—offers a key contribution as it illustrates how TLEs navigate and leverage their diverse motivations and resources to foster innovative outcomes. Further research and collaboration between academia, industry, and policymakers are essential for advancing the understanding of TLEs’ dynamics.

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