



## Research article

# Research on the pathways to high-quality development of tourism SMEs: A perspective of value assigned by quality, standards and brand

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## ABSTRACT

With the advancement of the United Nations Sustainable Development Goals, the trend toward sustainable and high-quality development has become prominent for tourism enterprises. Tourism small and medium-sized enterprises (SMEs), which are numerous, constitute a significant part of the global tourism market. However, existing research predominantly focuses on the pathways for high-quality development of large tourism enterprises, with many gaps in understanding the corresponding processes for tourism SMEs. Due to their limited resources and capabilities, tourism SMEs have to selectively explore distinctive development pathways based on their core strengths to pursue high-quality development. To investigate these development pathways, this study draws on the perspective of value assigned by quality, standards, and brand, taking 181 tourism SMEs as the research object, and uses the fsQCA method to analyze the pathways towards high-quality development of tourism SMEs. The results show that there are three pathways to high-quality development of tourism SMEs can be distilled, including “root-deepening”, “pioneering and innovative”, and “brand-prioritized”. Instead, “deficiency in innovation capacity” and “indiscriminate marketing of brands” will hamper the high-quality development pathways of tourism SMEs. Further examination discloses a substitutive relationship among the causal factors of the various pathways. This study delves into how tourism SMEs, under the objective constraints of resources and capabilities, integrate business elements and adjust strategic priorities to achieve high-quality development. It provides theoretical guidance for tourism SMEs worldwide to pursue high-quality and sustainable development in ways that are appropriate to different contexts.

## 1. Introduction

The proliferation and customization of tourism offerings have led to the prevalence of tourism small and medium-sized enterprises (SMEs) in the global marketplace [1]. As the most vibrant economic participants in the tourism market, a multitude of tourism SMEs significantly contribute to satisfying the increasingly diverse consumer demands, fostering employment, driving regional economic growth, and achieving communal prosperity [2]. Nevertheless, most of tourism SMEs are hampered by their traditional, unstructured operational models, which are plagued by disorganized resource allocation, poor management standards, and insufficient service

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orientation, leading to recurrent quality issues in products and services that adversely affect their brand reputation. Furthermore, the upheavals caused by the COVID-19 pandemic have severely obstructed their development, rendering advancement exceptionally difficult [3,4]. It has become an industry consensus that propels the high-quality development of tourism SMEs [5]. Unlike large enterprises that focus on platformization and standardization in their pursuit of high-quality development [6], the emphasis on high-quality development of tourism SMEs lies in highlighting their unique characteristics to differentiate themselves from the market and secure their position. This is manifested in the high-quality development of tourism SMEs by satisfying segmented market demands through high-quality products and services, ultimately leading to the establishment of a distinct brand and reputation. The high-quality development of tourism SMEs is crucial for bolstering their organizational resilience and sustaining operations, serving as a vital foundation for promoting the overall high-quality development of tourism industry and economy.

Achieving high-quality development in the tourism industry involves pursuing innovation, sustainability, and openness, while simultaneously realizing economic and social benefits [6,7]. Most scholarly works concerning high-quality development in the tourism industry have focused on macroeconomic and industrial strategies [8]. Extended to the corporate realm, high-quality development is considered a state or paradigm for businesses aiming to achieve high levels, tiers, and efficiency in creating economic and social value, while fostering outstanding capabilities for sustained growth and continuous value creation [9]. Existing scholars primarily investigate the determinants of high-quality development in large enterprises or listed companies. For instance, Liu et al. found through longitudinal case studies that digital supplementation and intelligent innovation propelled tourism firms toward intelligent tourism transformations [10]. Tang discovered that the digital economy enhanced total factor productivity in tourism enterprises [11]. Further research by Li and Li revealed that digitalization and greening synergistically advanced the high-quality development of these businesses [12]. However, there remains significant scope for research on high-quality development in tourism SMEs. The few studies on high-quality development in SMEs have not focused on the tourism sector but rather inclined toward the technology industry [13]. These studies primarily investigate development pathways and strategies related to innovation and sustainability [14], emphasizing the impact of external policy factors on the high-quality development of SMEs [15]. Therefore, exploring the pathways and models for high-quality development of SMEs in the tourism market, based on existing research, holds significant value for promoting green and sustainable development in the global tourism economy [16].

To eliminate the obstacles to high-quality development of tourism SMEs, numerous countries and regions have implemented relevant policies. As a rapidly growing tourism destination, the Chinese government has actively promoted the upgrading and transformation of tourism enterprises, shifting the development model of tourism SMEs from basic and extensive to one that focused on enhanced quality and efficiency. The Chinese government has implemented a series of industry policies that focus on “digital empowerment”, “intellectual enrichment through scientific and technological advancements”, and “value assigned through quality standards and brand” to provide guidance for tourism SMEs in their pursuit of high-quality development. “Empowerment” and “intellectual enrichment” primarily involve promoting improvement and value realization from the outside in, through various resources, technologies, or methods [17]. Research conducted at the enterprise level mainly emphasizes the role of innovative external factors in enterprise transformation and upgrading [18]. Particularly in the context of the thriving digital economy, the mechanism through which digital technology empowers industry development and enterprise management has garnered significant attention [19]. The concept of “value assigning” has been less thoroughly explored and lacks authoritative definitions compared to “empowerment” and “intellectual enrichment”, which have been more extensively researched. Enterprise development that is of high-quality is not merely a passive response to external stimuli, but rather a comprehensive and transformative process that originates from within [20]. For tourism SMEs, the “value assigning” of different elements forms distinctive development models. Existing research has found that the greening transformation and the construction of green supply chains of tourism SMEs provide a sustainable path that balances economic benefits with environmental gains [21]. Moreover, innovative strategies and the development of smart tourism have become important means for tourism SMEs to achieve sustainable and high-quality growth [22,23]. Therefore, by focusing on quality, standards, and branding, we can delve into how the innovation of business models and core strategies “assigns value” to the pathway of high-quality development for enterprises. This can provide theoretical guidance for tourism SMEs to break through developmental bottlenecks, achieve profound transformations, and realize sustainable development.

This study focuses on tourism SMEs within China, premised on the widespread agreement between the Chinese government and the business community regarding the imperative for high-quality development. The government’s guidance and support have enabled tourism SMEs to make significant progress in enhancing their innovation capabilities and sustainable operations [24]. Furthermore, after the pandemic, China’s tourism market experienced a swift recovery, prompting many tourism SMEs to actively seek out high-quality development pathways to establish a competitive advantage and ensure long-term viability. The insights gained from the exceptional growth of Chinese tourism SMEs can be a valuable resource for tourism SMEs across the globe as they strive to recover from the COVID-19 pandemic and achieve sustainable development.

Based on the aforementioned research background and pertinent discussions, this study primarily addresses and resolves three key issues.

- (1) What is the essence of high-quality development of tourism SMEs?
- (2) How do quality, standards, and brand assign value to the high-quality development of tourism SMEs?
- (3) What are the potential pathways for high-quality development within tourism SMEs through the perspective of value assigned regarding quality, standards, and brand?

To address the aforementioned research questions, this study undertook the following research efforts: Firstly, drawing on existing conceptualizations of high-quality development and the unique characteristics of tourism SMEs, we define the features of high-quality

development for tourism SMEs. Secondly, integrating insights from current research and the attributes of “value assigning,” we explore how quality, standards, and brand assign value to the high-quality of tourism SMEs. Finally, we collected data from 181 tourism SMEs and used Fuzzy-set Qualitative Comparative Analysis (fsQCA) methodology to analyze and elucidate the pathways to high-quality development for tourism SMEs, corroborating our findings with illustrative examples from specific enterprises.

By addressing these questions, this study aims to delineate the trajectory of high-quality development for tourism SMEs and to analyze how such businesses can achieve high-quality and sustainable development despite limited resources or capabilities. This study theoretically explores the pathways for high-quality development in tourism SMEs under the synergistic influence of multiple factors, contributing to the enhancement of existing research that has inadequately addressed this topic. The findings of this study will provide insights for academics, practitioners, and policymakers in the tourism industry, advancing the realization of the United Nations Sustainable Development Goals within this sector.

## 2. Theoretical background and configuration model

### 2.1. What is “value assigning”?

“Value assigning” can be elucidated in terms of both etymology and computer terminology. According to the Oxford Dictionary, the term “value” refers to “the quality of being useful or important”, while “assign” signifies to designate something with a particular value or function. By combining these definitions, “value assignment” can be defined as the process of attributing value, positive impacts, and beneficial effects to target objects based on certain principles and norms. In the field of computer programming languages, “value assigning” refers to the process of assigning numerical values to variables, wherein through assignment statements, values expressed by numbers, strings, and expressions representing certain meanings, attributes, features, quantities, functions, relationships, etc. [25], are assigned to a variable or an object with attributes. Drawing from the etymology and computer terminology of “value assigning”, its connotation in social science research can be interpreted as the internal alteration of target objects based on specific principles and norms in terms of value, significance, features, functions, etc., thereby generating positive impacts.

In the field of enterprise management, “value assigning” influences the overall business model of enterprises by altering their operational attributes or strategic objectives, thereby leading to strategic transformation and developmental transitions. “value assigning” in enterprise management does not unilaterally impact one element but rather emerges from the interaction of multiple factors within the business environment [26]. The scope of “value assigning” encompasses not only material elements such as resources and technologies that symbolize quality and affect the foundational aspects of enterprises but also intangible elements like brands and standards that alter the values and culture of enterprises. Enterprises selectively couple the “assigned value” with their own resources and capabilities, thereby changing their values or operational modes, optimizing resource utilization and efficiency, and ultimately achieving thorough and even disruptive innovations in their business models [27]. For tourism SMEs, fully leveraging their unique characteristics to assigning value through product quality, standards, and brand is an essential strategy for adapting to changes in the tourism market and achieving sustainable operation and high-quality development.

### 2.2. High-quality development of tourism SMEs

The development quality and sustainability of the tourism industry are crucial and central themes in academic research within the tourism sector [5]. These themes are characterized by an emphasis on development philosophies such as innovation, coordination, environmental consciousness and openness. Wang and Wang [28] views high-quality development of enterprise as an integration of economic efficiency and social benefit, promoting a sustainable development paradigm. Dong et al. [29] developed a high-quality development capability system for enterprises centred on supply capability, operational capability, environmental performance, and social responsibility. As to SMEs, Cao et al. [30] highlighted the significance of innovation quality for achieving high-quality development, which they deemed as a critical construction target. The significance of high-quality development extends to the tourism sector, where it underscores the transformation of development concepts, promotes supply-demand alignment, encourages cultural and tourism integration, and enhances industry efficiency [7].

Drawing upon the aforementioned studies, we suggest that high-quality development for tourism SMEs encompasses the integration of principles such as innovation, environmental sustainability, and openness into the core values and strategic development plans of these businesses. By concentrating on niche operational areas and upgrading tourism products and service offerings, these enterprises strive to achieve high efficiency and a high level of value creation, thereby generating positive economic and social benefits.

Enterprises are affected by numerous factors that contribute to their high-quality development, including external macroeconomic circumstances and market conditions, as well as internal strategic planning that is guided by concepts such as innovation and environmental sustainability [9]. Several research studies have shown that external policy factors can significantly influence the high-quality development of SMEs through direct or indirect intervention of the state in enterprise development. For example, Cao et al. argue that governments can enhance innovation quality among SMEs and drive high-quality growth by establishing innovation funds and implementing oversight [30]. Li et al. propose that the establishment of a digital inclusive financial system promotes high-quality development by reducing financial leverage and alleviating financial constraints [31]. Luo et al. [32], focusing on environmental issues of enterprises, find that environmental regulations can spur green technological and management innovations, thereby fostering greening and high-quality development. Compared to external factors, the influence of internal factors on the high-quality development of enterprises is lacking in both scope and depth. A few studies indicate that incorporating financial

technology within enterprises can alleviate their financial constraints, thereby fostering improvements in performance and facilitating high-quality development [33]. Additionally, the resilience of tourism enterprises is closely linked to their survival capabilities and high-quality development levels during the pandemic era [34].

Based on the above analysis, it is evident that current research primarily concentrates on the influence of external factors on the high-quality development of enterprises, neglecting the impact of internal factors. While external factors can indeed promote the high-quality development of enterprises indirectly, internal factors are the crucial elements that determine the developmental trajectory of businesses. External elements affect high-quality development by altering the internal dynamics of enterprises. Therefore, future studies should concentrate more on understanding the internal processes that promote the high-quality development of enterprises. This study adopts quality, standards, and brand as research breakthrough to explore the pathways to high-quality development of tourism SMEs. The findings are expected to enrich academic theory and provide guidance for business practice.

### 2.3. Quality, standards, brand and high-quality development of SMEs

This study examines the internal factors that contribute to the high-quality development of tourism SMEs, focusing on the value assigning of these factors. It identifies the antecedent factors from the dimensions of quality, standards, and brand, and analyzes the impact mechanism of these factors on the high-quality development of tourism SMEs.

#### 2.3.1. Impact of quality factors on the high-quality development of tourism SMEs

In the context of quality, its essential factors are primarily quality management [35] and quality innovation [36]. A company's quality capability, which focuses on enhancing the quality of its core offerings, leverages its knowledge and resources to provide customers with valuable and distinctive planning, control, and improvement capabilities [37]. This is the foundation for attaining high-quality development. Effective quality management incorporates product and service design, process management, and data analysis, supported by employee training, management involvement, and supplier management [38]. TQM theory emphasizes integrating all managerial functions to achieve full participation and comprehensive process coverage [35]. Quality management is more than just a managerial tool; it serves as an essential indicator of a company's competitiveness and development level. Perfecting the quality management system ensures the quality of products, services, and processes, enhances customer satisfaction, and promotes the improvement of business performance, particularly in innovation. Thus, quality management is closely linked to the high-quality development of tourism SMEs. Quality innovation can serve as a model for enterprises to shift from a profit-driven approach to one that prioritizes quality [39]. This perspective aligns with Schumpeter's view that innovation leads to competitive advantages through quality or cost savings. Quality innovation is customer-focused and encompasses innovations in demand, technology, and product services. It aims to improve core competitiveness and drive the high-quality development of enterprises.

#### 2.3.2. Impact of standards factors on the high-quality development of tourism SMEs

Standard dimension encompasses standards application and standards optimization [40,41]. A comprehensive system within an organization is designed to attain a specific standardization goal, by organizing related standards into a coherent and unified structure, based on their inherent connections [42]. By developing and executing an extensive array of standards in technology, labour, and management, corporations facilitate lean management and normative operations. This approach not only helps combat the phenomenon of "increasing entropy" through institutionalization [43], but it also plays a vital role in achieving high-quality development. Sources of enterprise standards include national standards, industry standards, local standards, and enterprise standards themselves. The introduction and application of standards by an enterprise are foundational to the construction of a comprehensive standards system, representing a critical link in the enterprise's continuous operation and high-quality transformation. Standard optimization is an essential measure that enables enterprises to refine or innovate their standards based on the actual business environment and market demands. This process is crucial in maintaining the advanced nature and reliability of the standards system [44]. Moreover, standard optimization reflects an enterprise's active participation in the formulation of industry standards, which significantly enhances the enterprise's capacity for innovation and the effectiveness of its innovative endeavors [41]. Tourism SMEs must achieve breakthroughs in standard optimization to adapt to market environments and secure competitive advantages, closely related to the level of high-quality development.

#### 2.3.3. Impact of brand factors on the high-quality development of tourism SMEs

Brand dimension primarily is composed of brand maintenance [45] and brand expansion [46]. Brand equity theory posits that a brand, as an important intangible asset for the enterprise, can strengthen consumer perceptions, thus establishing brand recognition and reputation, which can be leveraged as a competitive advantage for the enterprise [47]. To ensure the effective development and ongoing management of brand equity and value, enterprises must establish dedicated organizations and standardized systems for brand management and maintenance [48]. Brand maintenance focuses on sustaining and reinforcing brand recognition and emotional connection through value transmission, while also safeguarding brand value through legal registration. An well-developed brand maintenance system helps enterprises establish a favorable reputation and manage potential brand-related public opinion crises in the consumer market. Brand expansion involves the extension and innovation of existing brands. According to the theory of brand extension, established brands can serve as a foundation for the development of new brands, thereby mitigating risks and enhancing benefits through brand association [49]. Brand expansion is a competitive strategy that involves innovating products and services based on market demands and existing brand equity [46]. This strategic maneuver enriches the enterprises' product and brand portfolio, not only elevating the market receptivity of new products but also broadening the original brand's market penetration and

consumer recognition. It is evident that the maintenance and expansion of brands can significantly enhance the brand efficacy and elevate the level of high-quality development of tourism SMEs.

#### 2.4. Conceptual model

Based on the aforementioned analyses, this study establishes six antecedent factors—quality management, quality innovation, standard application, standard optimization, brand maintenance, and brand expansion—as crucial determinants in driving high-quality development of tourism SMEs. And a model for the high-quality development pathway for tourism SMEs has been constructed, as illustrated in Fig. 1.

### 3. Methodology

#### 3.1. FsQCA

Fuzzy-set Qualitative Comparative Analysis (fsQCA) is an integrated qualitative-quantitative approach extensively utilized in strategic analysis within corporate management [50,51]. On the one hand, this method is selected for this study due to its dual characteristics of qualitative and quantitative research [52], making it particularly well-suited for the understudied area of high-quality development in tourism SMEs. FsQCA enables configurational matching of quality, standards, and brand factors through specific case studies and business data to delineate pathways for enhancing high-quality development of tourism SMEs [53]. On the other hand, in contrast to classical empirical research methods such as structural equation modelling, fsQCA is capable of concurrently considering the positive and negative impacts of antecedent factors, analyzing the causal and complex mechanisms between various antecedent and consequent factors to formulate multiple configurational pathways [54]. This enables a more lucid exposition of the intricate influence of elements such as quality, standards, and brand on the high-quality development of tourism SMEs. We drew on existing studies that used fsQCA methods to analyze strategic management and commercial operations in tourism enterprises [55,56], thereby revealing the intricate roles of quality, standards, branding, and other factors in fostering high-quality development in tourism SMEs.

#### 3.2. Data collection

This study examines tourism SMEs in the Chinese region. According to the “Regulations on the Criteria for Classification of Small and Medium-Sized Enterprises” in China, tourism SMEs are classified based on the number of employees into three categories: micro enterprises (1–10), small enterprises (11–100), and medium enterprises (101–300). During June–September 2023, we conducted a questionnaire survey among managers of SMEs in the Chinese regional tourism market. We primarily collected data on the high-quality status of enterprises through questionnaire surveys. Given that managers typically have comprehensive insights into their companies’ development, we targeted managers of tourism SMEs for our survey. Due to the objective nature of a company’s development status (theoretically, different managers within the same company would have a similar understanding of its current state) and to avoid research biases caused by duplicate samples, we utilized the single-respondent approach [57]. The questionnaire distribution occurred in two phases: The first phase involved sending surveys via email and conducting field research to gather information from managers of tourism SMEs about their business conditions. In the second phase, to ensure a balanced sample size across different types of tourism

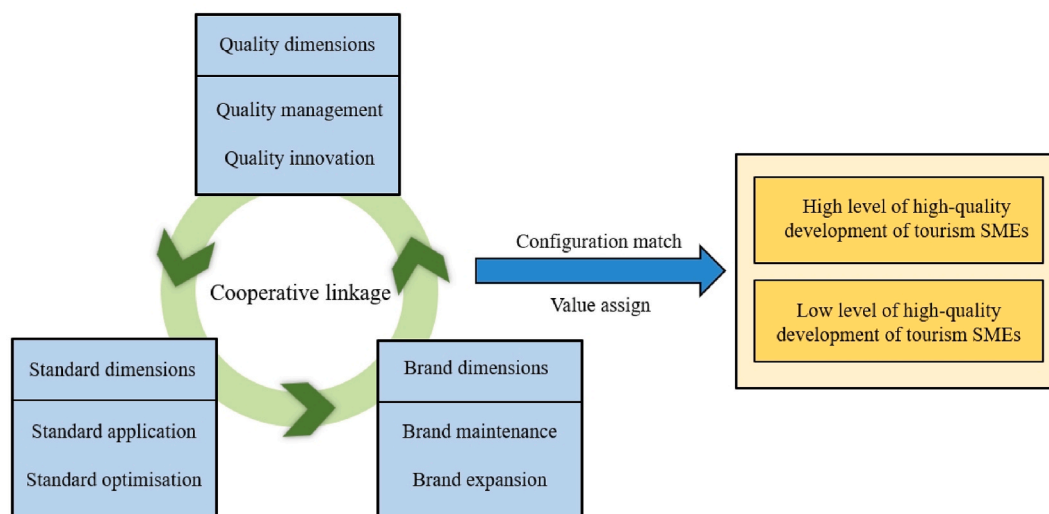


Fig. 1. The model for the high-quality development of tourism SMEs assigned by quality, standards, and brand.

enterprises and avoid research bias, we supplemented the questionnaire distribution to those enterprise categories that had fewer responses based on the initial data collection results [58]. In total, 220 questionnaires were distributed, with 197 recovered. After manually excluding incomplete responses and questionnaires with uniform responses, 181 valid questionnaires were obtained, resulting in an effective response rate of 90.5 %. The descriptive statistics of the sample are presented in Table 1.

### 3.3. Variable measurement

The survey questionnaire used in this study was built upon well-established scales and findings from previous research, adapted to fit the particular needs of the investigation. The five-point Likert scale was utilized to evaluate different variables.

In the context of high-quality development in enterprises, there is currently a lack of a mature scale specifically addressing the high-quality development of tourism enterprises. This study draws upon the measurement dimensions and methodologies for high-quality development proposed by Tian and Ding [59]. Considering the emphasis of high-quality development in tourism SMEs on meeting segmented market demands through high-level product services to achieve efficient operation and sustainable growth, we ultimately established a measurement framework encompassing five factors: operational efficiency, service level, green development, innovation capacity, and risk control. The measurement outcomes across these factors collectively define the level of high-quality development of tourism SMEs.

As to quality management, this study analyses product quality performance indicators in TQM [35] and quality management scale [38]. Reflecting on the service characteristics inherent to tourism enterprises, we evaluate strategic orientation, staff training, record-keeping, and digital empowerment. As for quality innovation, we reference the evaluative system for quality innovation strategies and research on innovation quality [60,61]. The metrics for measurement encompass innovation philosophy, objective management, integration of innovation resources, and innovation performance.

In measuring standard application and optimization, this study draws upon the research of Zhang et al. [40] pertaining to standard competition, as well as the incorporation of service standards by tourism SMEs. By measuring the establishment and enhancement of standard systems, this study has ascertained the application and optimization of standards within tourism SMEs.

As to brand management, this study employs the corporate brand competitiveness evaluation system created by Li [45], to assess brand preservation, value communication, legal protection, and crisis management of tourism SMEs. For evaluating brand expansion, the study draws upon the research on brand extension by Spiggle et al. [46] and the research on brand innovation by Nguyen et al. [62], examining product and service development, market segmentation, and brand innovation of tourism SMEs.

## 4. Results

### 4.1. Measurement model analysis

This study assessed the reliability and validity of information gathered through questionnaires, shown as Table 2. To assess reliability, Cronbach's alpha coefficient was employed, and all variables exhibited a coefficient greater than 0.7, indicating a commendable level of scale reliability. As for validity, the KMO measure for the scale was 0.93, and the Bartlett's test of sphericity was significant ( $p < 0.001$ ), with the Average Variance Extracted (AVE) surpassing 0.4 and the Composite Reliability (CR) surpassing 0.7. Following the research conducted by Lam [63], the scale is considered acceptable in terms of authenticity.

**Table 1**  
Descriptive statistics of the sample.

Sample characteristics	Sample distribution	Frequency	Percentage(%)
Number of employees	1–10	43	23.8
	11–100	65	35.9
	101–300	73	40.3
Enterprise age	1–2	40	22.1
	3–5	63	34.8
	5–10	49	27.1
	>10	29	5
Nature of enterprise	State-owned enterprises	24	16
	Private enterprises	125	69.1
	Foreign-invested enterprises	8	4.4
	Others	24	13.3
Business areas	Tourism intermediary enterprises	52	28.7
	Tourism transportation enterprises	35	19.3
	Tourism hospitality enterprises	56	30.9
	Tourism attraction enterprises	38	21

Note: The criteria for dividing the number of employees is referenced from the "Regulations on the Criteria for Classification of Small and Medium-Sized Enterprises" in China (No. 32 Document in 2007 of the State Council).



**Table 2**  
Reliability and validity assessment.

Variable	Cronbach's $\alpha$	AVE	CR
Quality management, QM	0.8	0.521	0.808
Quality innovation, QI	0.774	0.487	0.785
Standard application, SA	0.701	0.471	0.718
Standard optimization, SO	0.739	0.509	0.751
Brand maintenance, BM	0.778	0.525	0.802
Brand expansion, BE	0.752	0.503	0.752
High-quality development, HQD	0.843	0.412	0.854

#### 4.2. Calibration

Calibration is the process of assigning cases to an ensemble affiliation [64]. This research employs the direct calibration method for the variables, transforming the raw data into values within the [0,1] interval for further investigation [65]. The anchor points were set at the 80th percentile (equivalent to fully affiliated), 50th percentile (representing the intersection), and 20th percentile (corresponding to fully unaffiliated) of the sample data [66]. Given the primary use of Likert scales for data collection, which results in a prevalence of integer values in the raw data, this study subtracts 0.001 from the complete membership point and adds 0.001 to the non-complete membership point, with crossover points adjusted towards the mean by  $\pm 0.001$  [52]. The calibration anchors for each variable are presented in Table 3.

#### 4.3. Necessary condition analysis (NCA)

Necessary Condition Analysis (NCA) determines if a particular condition is required for a specific outcome and evaluates the effect size of that necessary condition [67]. In NCA, the effect size is referred to as the bottleneck level, which represents the minimum level of necessary conditions required to produce a particular result [50]. This study examines the antecedent conditions for the high-quality development of tourism SMEs. If the consistency level is greater than 0.9, it indicates that the antecedent condition is a necessary condition for the outcome variable. Using fsQCA3.0 for the necessity analysis, the results are presented in Table 4. The findings suggest that the consistency levels of all antecedent conditions are below 0.9, indicating that no single antecedent condition independently constitutes a necessary condition for the high-quality development of tourism SMEs. Therefore, it is necessary to examine a configurational matching of multiple antecedent conditions for a more comprehensive analysis.

#### 4.4. Sufficiency analysis

Conditional combination analysis is primarily employed to assess whether the combination of various antecedent variables exhibits a robust explanatory power for the outcome variable [50]. In this study, based on existing research, the case frequency threshold is set at 1.5 % of the sample size, which translates to a minimum of two cases [52]. The consistency threshold is established at 0.8, while the PRI consistency is fixed at 0.75. According to the software settings, in the truth table, values  $> 0.75$  were assigned to 1, and those  $< 0.75$  were assigned to 0. By referring to the clarifications regarding core and peripheral conditions, the study conducts a comparison between intermediate solutions and parsimonious solutions [65]. Core conditions are those that are present in both intermediate and parsimonious solutions, while peripheral conditions are exclusive to intermediate solutions. Through configurational matching, the final outcomes illustrating configurations for high-level and non-high-level quality development of tourism SMEs are depicted in Table 5.

The evaluation of Table 5 unveils the uncovering of six configurational outcomes (referred to as H1-H6) that facilitate high-quality development in tourism SMEs at a high level. Each of these outcomes has an individual consistency greater than 0.75, which demonstrates that they serve as sufficient conditions for promoting such advanced development. The cumulative consistency level of the outcomes is 0.93, indicating that all six configuration outcomes possess substantial explanatory power for the results. Furthermore, the coverage of outcomes reveals that each configuration significantly elucidates high-quality development of tourism SMEs, with the six

**Table 3**  
Calibration anchor points of variables.

Variable	Anchor point		
	Fully-in	Cross-over	Fully-out
QM	18.999	17.999	14.001
QI	18.999	16.999	13.001
SA	13.999	11.999	10.001
SO	13.999	11.999	9.001
BM	18.999	16.999	14.001
BE	13.999	12.001	11.001
HQD	43.999	39.999	34.001

**Table 4**

Necessity analysis results of variables.

Variable	HQD		~HQD	
	Consistency	Coverage	Consistency	Coverage
QM	0.756	0.822	0.373	0.367
~QM	0.418	0.425	0.819	0.752
QI	0.862	0.815	0.410	0.350
~QI	0.313	0.370	0.784	0.836
SA	0.801	0.817	0.349	0.322
~SA	0.335	0.363	0.801	0.785
SO	0.786	0.843	0.343	0.333
~SO	0.378	0.389	0.838	0.779
BM	0.676	0.767	0.375	0.385
~BM	0.458	0.448	0.773	0.683
BE	0.755	0.722	0.464	0.401
~BE	0.373	0.435	0.678	0.715

Note: The symbol “~” denotes the absence of the condition.

**Table 5**

Configuration analysis results.

Variable	HQD						~HQD			
	H1	H2	H3	H4	H5	H6	NH1	NH2	NH3	NH4
QM	●		⊗	●	⊗	⊗	⊗		⊗	⊗
QI	●		●	●	●		⊗	⊗	⊗	
SA	●	●	●	●	●	●	⊗	⊗		⊗
SO	⊗	●	●	●	●	●	⊗	⊗	⊗	⊗
BM	⊗	⊗		●	●	●		⊗	⊗	●
BE		⊗	⊗	●	●	●		⊗	⊗	●
Consistency	0.938	0.949	0.957	0.945	0.949	0.961	0.964	0.968	0.975	0.917
Row Coverage	0.128	0.235	0.189	0.408	0.197	0.198	0.548	0.437	0.483	0.191
Unique Coverage	0.002	0.038	0.006	0.206	0.008	0.012	0.077	0.019	0.064	0.049
Solution consistency	0.927						0.957			
Coverage of solution	0.638						0.679			

Note: ● = core causal condition (present); ● = contributing causal condition (present); ⊗ = core causal condition (absent); ⊗contributing causal condition (absent); Blank spaces indicate a “don’t care” condition.

configurational paths collectively accounting for 64 % of the cases. On the other hand, four configurations representing non-high-level quality development pathways for tourism SMEs were identified and denoted as NH1–NH4. Each configuration leads to suboptimal quality development of tourism SMEs and collectively explains 68 % of the cases.

#### 4.5. Substitutive relationships analysis

Examining the outcomes of configuration paths, it becomes evident that the amalgamation and synergy of quality, standards, and brand can forge multiple viable pathways for the high-quality development of tourism SMEs. The query arises whether there exists a potential substitutive relationship among these antecedent elements. Clarifying this issue could offer more possibilities for tourism SMEs, especially those with limited resource conditions, to explore alternative resources for high-quality developmental pathways [2].

In our analysis, we identified four alternative relationships by conducting horizontal comparisons of various configuration outcomes, as illustrated in Fig. 2. Our findings suggest that there are certain shared antecedent conditions under which certain factors of disparate high-quality development pathways demonstrate substitute relationships that are latent. For example, a comparative examination of the configuration outcomes H1 and H2 between the “root-deepening” type and the “pioneering and innovative” type unveils a potential substitutive relationship between quality management and standard optimization for tourism SMEs endowed with a higher level of quality innovation and standard application.

## 5. Discussion

To conduct a more profound and insightful analysis of the complex roles that quality, standards, and brand play in the high-quality development of tourism SMEs, and to assist these enterprises in finding viable pathways to high-quality development despite resource and capability constraints, this study delves deeply into the analysis and synthesis of the above results. We also corroborate these findings with successful case studies from existing enterprises.



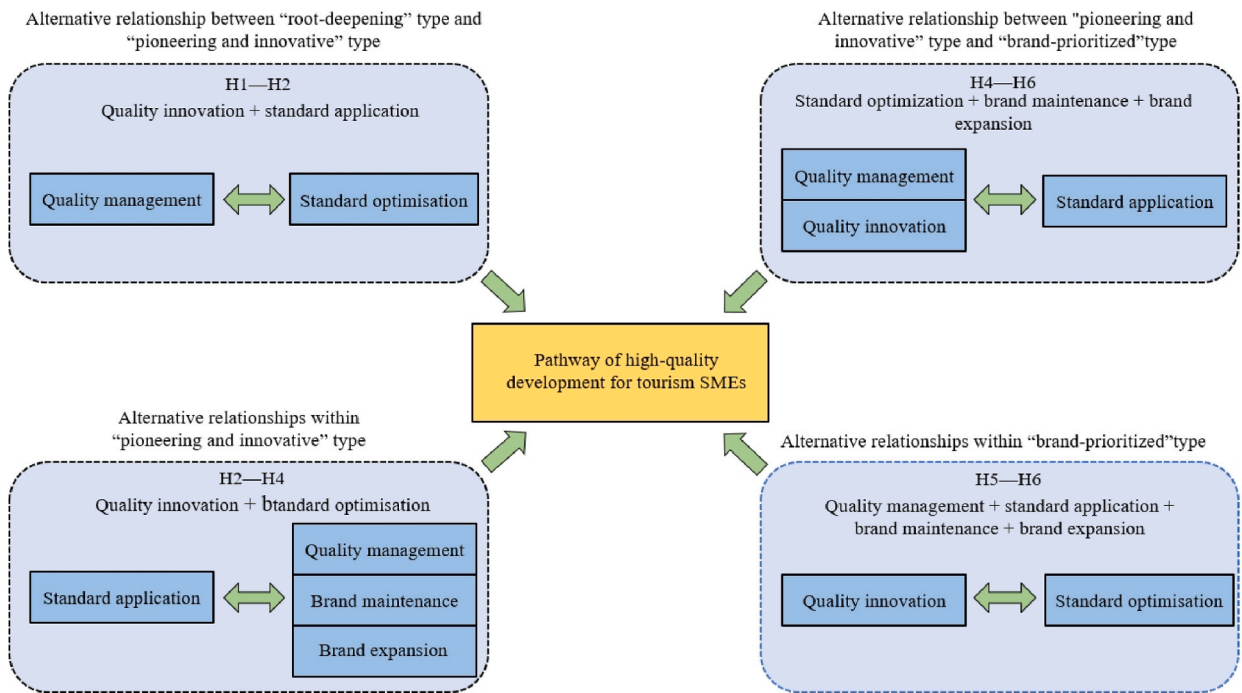


Fig. 2. Substitution effect among quality, standards and brand elements.

### 5.1. Pathways to high level of high-quality development of tourism SMEs

We synthesize the six configurational outcomes through comparative analysis into three high-quality development pathways. Each pathway shares similar core elements across its different configurations, indicating that prioritized investment in these elements can propel high-quality development in tourism SMEs.

#### 5.1.1. “Root-deepening” type

Configuration H1 is classified as a “root-deepening” type. It indicates that despite potential financial constraints limiting investments in various sectors, businesses that prioritize quality management and standard application, coupled with quality innovation, can still achieve high-quality development. For tourism SMEs, the consistent delivery of top-notch products and services constitutes the fundamental cornerstone for securing a foothold in the market and fostering enduring development, analogous to the “roots” of a stately tree. Moreover, developing and implementing a standards system is crucial for reinforcing the enterprise’s foundational stability [68]. For tourism SMEs constrained by limited resources, concentrating efforts on quality management lays the foundation for sustained operations. Furthermore, establishing a comprehensive standard system to regulate business operations and service processes can effectively mitigate risks. This approach assists tourism SMEs in allocating resources to build core competitiveness and achieve a path toward high-quality development.

Enterprises that implement the “root-deepening” model swiftly establish a strong market presence by prioritizing quality and standards, as evidenced by the Chinese dining enterprise Xijia De. With respect to quality management, Xijia De has thoughtfully introduced a limited number of core categories for its primary offering, dumplings, enabling the company to focus on maintaining exceptional quality control for these exceptional products. Meanwhile, the company’s decision to slow down its market expansion allows it to exercise substantial control over its operational outlets, thus ensuring the overall standard of its products and services. Regarding standards, Xijia De has established comprehensive production and service benchmarks, standardizing processes while maintaining the freshness of its dumplings. Through the synergistic valuation of product quality and standard systems, Xijia De has swiftly secured a firm footing in the dumpling niche within China’s dining market and has progressively grown, aligning with the “root-deepening” high-quality development pathway of tourism SMEs proposed in this study.

#### 5.1.2. “Pioneering and innovative” type

Configurations H2, H3, and H4 are classified as “pioneering and innovative” types. Tourism SMEs can pave the way for high-quality development by prioritizing quality innovation and standards optimization as their core value propositions, and supporting these by other elements in collaboration. Product innovation is essential for enterprises seeking a competitive edge and is a significant method for assigning value to high-quality development strategies. The optimization of existing standards and the introduction of new ones are crucial in the development and launch of new products and services [44]. Standard optimization is closely linked to corporate quality innovation, as both factors work together to enhance the innovation capacity and level of tourism SMEs. For tourism SMEs centred

around service-oriented products, addressing the rapid shifts in the external market environment and the diverse demands of consumers through product quality innovation and standard optimization is undoubtedly a reflection of their superior dynamic capabilities and core competitiveness [69]. This approach paves the way for high-quality development that is centred around innovation.

Enterprises that are known for “pioneering and innovative” are often recognized for their business and product innovation. The Beautiful Mountains and Rivers Group Co. Ltd. stands as a distinguished tourism SMEs in China, acclaimed for its innovative business practices. The enterprise bases on its core business to expand into the upstream and downstream markets of the tourism industry, establishing a comprehensive business system that includes hotel management, commodity trade, and cultural media. This approach enables product quality innovation and enhances commercial ecosystems. Simultaneously, the enterprise has established systematic and leading management standards in the tourism intermediary sector, with its pioneering large-scale tourism team management norms becoming a benchmark within the industry. Hence, it is evident that “pioneering and innovative” enterprises, through the synergistic effects and valuation of quality innovation and standard optimization, have carved a pathway to high-quality development of tourism SMEs.

#### 5.1.3. “Brand-prioritized” type

Configurations H5 and H6 are classified as “brand-prioritized” type. This pathway is rooted in a well-established standard system that prioritizes the brand as the strategic core, emphasizing brand maintenance and expansion. By synergistically assigning value, it facilitates a path to high-quality development of tourism SMEs. Enterprises cultivate and maintain a distinctive brand identity that differentiates them from competitors, enhances brand recognition, and consequently influences consumer decision-making. Sustained and stable brand maintenance underpins the establishment of brand reputation and fosters customer loyalty. Moreover, the expansion and extension of the brand further increase its visibility and prestige among users, augmenting the enterprise’s market share [49]. A well-developed standard system is crucial for enterprises’ brand strategy. It provides uniform procedures that promote brand growth and minimize risks from non-standard practices during expansion. Relying on standard system and using the brand strategy as their wings, the enterprises assign value to their development and business models, delineating a distinctive path toward high-quality development of tourism SMEs.

“Brand-prioritized” enterprises typically view the brand as the central element and source of value creation, and they often achieve prominence through the development of robust and mature brand systems, as exemplified by Fantawild Co. Ltd. (listed on NEEQ<sup>1</sup>). Fantawild has been deeply involved in brand from its inception and has established a brand system focused on theme parks and cultural content products. Fantawild’s theme parks are built and operated according to strict design principles, resulting in a collection of distinctive parks that form the backbone of its brand system and provide a competitive edge in the tourism industry. The successful launch of digital animation series and themed performance projects have achieved significant success and, in conjunction with the theme park brands, have created a renowned product and brand ecosystem in the industry. This case illustrates how a standardized system and brand strategy can collaboratively enhance an enterprise’s operational capabilities and strategic direction, providing a path of open innovation and high-quality development of tourism SMEs.

### 5.2. Pathways to non-high level of high-quality development of tourism SMEs

The configurational outcomes leading to a non-high level of high-quality development in tourism SMEs can similarly be summarized into two Pathways. These Pathways reflect the common difficulties or misconceptions faced by tourism SMEs during their pursuit of high-quality development, which hinder their progress.

Configurations NH1, NH2, and NH3 can be categorized as indicative of “deficiency in innovation capacity”. A salient characteristic of enterprises within this category is the lack of innovative consciousness and capability, manifesting as a deficiency in quality innovation and standard optimization. Additionally, these enterprises often undervalue brand strategy, resulting in their development stagnating in a rudimentary, extensive growth model. In the highly competitive tourism market, a dearth of innovation capacity can trap enterprises in a cycle of inferior imitation of existing tourism products, precluding the establishment of core competitive advantages and a sustainable business moat, and obstructing the pathway to high-quality development valorization.

Configuration NH4 is characterized as an example of “indiscriminate marketing of brands”. This classification of enterprises often lacks quality control and standardized application, focusing instead on unplanned brand maintenance or expansion. In order to achieve high-quality development, an enterprise must be able to effectively manage both the fundamental and essential aspects of quality and the construction of a standard system. If an enterprise concentrates solely on brand promotion and marketing without addressing significant flaws and inadequacies in product quality management and service processes, it risks severely damaging its brand reputation, failing to gain customer satisfaction and trust, and ultimately, unable to achieve high-quality development.

The comprehensive analysis delineates that deficiency in innovation capacity and indiscriminate marketing of brands fail to enhance the core competitiveness and sustainable development of tourism SMEs, thereby hindering their high-quality growth trajectory. This aligns with the service-oriented nature of the tourism industry, which requires businesses to prioritize product or service innovation to offer consumers unique experiences, consistent with the “innovation” aspect of high-quality development.

<sup>1</sup> NEEQ (the National Equities Exchange and Quotations, known as the New Third Board), is a national stock exchange of China. It aims to provide public transfer of stock, financing, asset restructuring and other services to innovative, startup and growing small, medium and micro-sized enterprises.

### 5.3. Substitutive relationships among configuration outcomes

This study examines the four substitutive relationships among the development pathways of high-quality development of tourism SMEs. These relationships include those between the “root-deepening” type and the “pioneering and innovative” type, between the “pioneering and innovative” type and the “brand-prioritized” type, within the “pioneering and innovative” type, and within the “brand-prioritized” type. The inductive analysis indicates that these substitutions primarily interact with the dimensions of quality and standards. This can be understood as follows: The dimensions of quality and standards are interconnected aspects of operational management, whose interaction and coordination form the basis of the quality and standards management system. This system serves as the foundation for the enterprise’s survival, operation, and high-quality development. In light of the resource constraints faced by tourism SMEs, a comprehensive quality and standards management system, despite potential deficiencies in individual aspects of quality or standards, can, through the synergistic interplay of its elements, compensate for these deficiencies to a certain extent. As a result, this system plays a substitute role, contributing to the enterprise’s high-quality development at a holistic level.

## 6. Conclusions

### 6.1. Research conclusions

Previous scholars have explored how factors such as innovation, digitalization, and greening influence the high-quality development of tourism enterprises. However, for resource-constrained tourism SMEs, how they should select and combine key business elements to achieve high-quality and sustainable development remains an under-addressed question [10,12]. This study proposes a comprehensive framework to investigate pathways to the high-quality development of tourism SMEs, which is based on the perspective of value assigned by quality, standards, and brand with fsQCA methodology. The empirical findings demonstrate that no single antecedent factor—such as quality, standards, or brand—constitutes a necessary condition for the high-quality development pathways of tourism SMEs. Instead, antecedent factors must be appropriately configured to form pathways that lead to high-quality development of tourism SMEs.

This study analyses and identifies three categories of high-quality development pathways for tourism SMEs: “root-deepening” type, “pioneering and innovative” type, and “brand-prioritized” type. Notably, while the antecedent factors vary across these pathways, innovation emerges as a critical component for the high-quality development of tourism SMEs. This conclusion aligns with the current emphasis on innovation in both academic research and commercial practices within the tourism sector [22,23]. By innovating in quality, standards, and brand, these enterprises have established core competitive advantages and created a “moat” around their business models [70]. The “deficiency in innovation capacity” pathway, which hinders high-quality development of tourism SMEs, corroborates the above conclusion from the opposite perspective. Another impediment to high-quality development of tourism SMEs is “indiscriminate marketing of brands.” The failure of “blind brand marketing” underscores that marketing and promotion serve merely as catalysts for brand reputation, and providing valuable products and services is the essence of the service industry [71]. Therefore, tourism enterprises should establish a sustainable marketing system with clear and achievable marketing goals.

Finally, Given the limited resources and capabilities of tourism SMEs, exploring alternative business elements is a significant and meaningful topic for achieving high-quality development [1]. Through a thorough examination of various pathways, this study identifies four types of substitutive relationships. These relationships allow certain antecedent factors to substitute for one another while still maintaining a high-quality developmental pathway for tourism SMEs. The presence of key factors facilitates the development of a relatively perfected business model and operational system, which can produce a “holistic effect”. This effect can be observed in tourism SMEs, where it manifests as comprehensive quality and standard systems. This conclusion broadens the horizon for tourism SMEs seeking high-quality development under resource-constrained conditions.

### 6.2. Theoretical implications

Firstly, this study conceptualizes and expands the concept of “value assigning” within the domain of management studies. Drawing from both etymological origins and computer science terminology, the study traces the roots of “value assigning” to clarify its meaning within the context of the social sciences. In contrast to the more extensively studied “empowerment” effect, this study posits that the “value assigning” effect has distinct targets and mechanisms. It fundamentally transforms an enterprise’s business model and value creation process from the inside out [69]. This study elaborates and expands the perspective of “value assigning” in corporate analysis. While current scholars primarily focus on the impact of external factors on high-quality business development [6,28], this research underscores the decisive role of internal factors in corporate transformation, thereby providing a more comprehensive and profound understanding of high-quality development.

Secondly, this research emphasizes the collaborative influence of various precursory factors within the business environment based on quality, standards, and brand. Unlike existing research that mostly analyzes and validates the impact of individual elements on high-quality business development [19], this study posits that such development and transformation result from the collective interplay of multiple business elements. FsQCA provides a suitable method for studying these complex relationships. The conclusions support the explanations provided within the Business Model Canvas theory, which posits that an enterprise’s business model and value creation are the outcomes shaped by the interaction multiple factors [72]. This suggests that future research should focus more on the combined effects of multiple business elements in commercial environments on enterprise operations and development. Such studies and their conclusions might better meet the needs of actual business practices.

Finally, this study identifies multiple pathways for driving high-quality development in tourism SMEs, deepening our understanding of high-quality development. The pathway to high-quality development is not singular [16,29], and finding the most suitable route for one's specific needs is critical. Through the selection and combination of elements such as quality, standards, and branding, tourism SMEs can explore diverse routes to high-quality development. Comparisons between different pathways reveal the importance of innovation for high-quality development in these enterprises. This aligns with the long-standing scholarly emphasis on innovation and underscores its essential role in fostering high-quality development in enterprises [2,36]. Simultaneously, this study's exploration and reflection on the substitution effects of various factors on high-quality development provide insights for further in-depth investigation into the complex relationships between business elements.

### 6.3. Managerial implications

Firstly, there is a paradigm shift from a “unidirectional investment” to a “multi-faceted coordination” approach. The high-quality development of tourism SMEs is a multi-dimensional, coordinated, and sustainable endeavor, necessitating a multifaceted linkage driven by quality, standards, and brand. Tourism SMEs should revise their development mindset and paradigm, orchestrating and harmonizing enterprise resources and strategic directions, and exploring pathways to high-quality development that are tailored to local conditions through the connection and coordination of business elements such as quality, standards and brand.

Secondly, high-quality development should prioritize quality standards and brand as focal points of value assigning. Tourism SMEs should delve into the associative and value-assigning effects of quality, standards and brand, positioning these as the breakthrough points and focuses for high-quality development, rigorously controlling quality management, refining the standards system, expanding brand value, and thereby continuously elevating the level of high-quality development of tourism SMEs.

Lastly, the catalytic role of innovation in driving high-quality development should be leveraged. Innovation assigns value to high-quality development through the renewal of business elements, with quality innovation, standard optimization, and brand expansion all reliant on the catalytic effect of innovation. Tourism SMEs should integrate innovative mindset into organizational management and strategic development, seeking out personalized pathways to high-quality development through continuous innovation and iteration of business models.

### 6.4. Limitations and future research

The above-mentioned implications notwithstanding, the findings of this study are not without limitations and, hence, ought to be construed considering the following limitations. Firstly, this study focuses on the value assigning of internal business elements such as quality, standards, and brand to the high-quality development of enterprises. However, the growth of tourism businesses is closely linked to external factors such as policy and market environment. How these external factors interact with internal business elements and collectively impact the high-quality development of tourism enterprises merits further exploration. Secondly, the study identifies multiple pathways for high-quality development among tourism SMEs, each with its own focus. As these enterprises grow and their resource constraints ease or disappear, how will their paths to high-quality development evolve? Future research could examine strategic choices and developmental trajectories across different stages of enterprise growth through case studies. Lastly, this study focuses on tourism SMEs in China. The development experience of tourism SMEs in China can serve as a useful reference. However, the development of tourism enterprises, particularly small and medium-sized ones, exhibits distinct regional characteristics, which is intricately linked to local economic conditions, resource endowments, and policy guidance. Therefore, future studies could conduct cross-regional comparisons and heterogeneity analyses of high-quality development among tourism SMEs in different countries.

### CRedit authorship contribution statement

**Jianzhong Shi:** Writing – review & editing, Supervision, Resources, Project administration, Methodology, Funding acquisition, Conceptualization. **Yang Xiao:** Writing – review & editing, Writing – original draft, Visualization, Validation, Software, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

### Data availability statement

The data supporting this study's findings are available from the corresponding author upon reasonable request.

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### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.heliyon.2024.e39772>.

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