

# Revamping Sustainable Strategies for Hyper-Local Restaurants: A Multi-Criteria Decision-Making Framework and Resource-Based View

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## Abstract

There is a growing emphasis on sustainability within the hospitality industry. However, research on *hyper-local* restaurants' strategic sustainable strategies is scarce. Accordingly, this study aims to unveil the *hyper-local* Chinese restaurateurs' critical success factors (CSFs). Grounded on the CSFs identified in the literature and validated by experts, data were collected from hyper-local restaurant owners and analysed through multi-criteria decision-making (MCDM), best-worst method (BWM) and hesitant fuzzy shapely order weights average (HSFOWA) approach. Results suggest that green entrepreneurial orientation is symbiotic, and green customer education, ability, motivation, capability, entrepreneurial orientation and high-commitment work practices significantly impact the sustainability of hyper-local restaurants. Findings stimulate sustainable strategies based on available CSFs. Practical and managerial implications are discussed.

## Keywords

Sustainable strategies, critical success factors, multi-criteria decision-making, best-worst method, *Hyper-Local* Chinese restaurants

## Introduction

During the COVID-19 pandemic, restaurateurs have dramatically increased in maintaining local business, operations and services to robust strategic innovation management (Zaoui et al., 2021). This phenomenon, termed *hyper-local*, involves a significant commitment that goes well beyond purchasing local food (De Chabert-Rios & Deale, 2018). The number of restaurateurs owed farmhouses or gardens that source a substantial portion of their processes to provide fresh crops like fresh fruits and other foodstuffs, has improved extensively over the years (De Chabert-Rios & Deale, 2018). Given this, *hyper-local* involves a significant direct relationship in selling/buying local food. The crucial strategies of a farmer/gardener skills, commitment, procedure to pact with crops/fruits sustainable operations and other prevalent challenges impact *hyper-local* restaurant competitive advantage, productivity and success (Liu et al., 2021; Melkonyan et al., 2020). Recent scholars addressed several

drivers and antecedents that impact restaurant employees, competitiveness, image, service operations and financial performance (Cantele & Cassia, 2020; Hwang et al., 2020; Kim et al., 2020b). Accordingly, studies have hosted purchase preference and bullying influence consumer attention (Khan & Sharma, 2020). Few studies suggest that the highly unpredictable nature of consumer purchasing behaviour during the COVID-19 pandemic needs to imply strategic innovation management (Oliveira et al., 2022; Zaoui et al., 2021). The growing research and common verdicts split on wide-ranging themes. Besides, they are mainly interrelated to social responsibility, eco-innovation and entrepreneurial orientation (Luu, 2021; Sharma et al., 2020; Wong et al., 2021). However, there a gap exists in the literature notifying *hyper-local* restaurateurs, representing *hyper-local* restaurants remaining isolated. This gap warrants new insights into *hyper-local* restaurants' complex operations, optimizations, services and interaction of various sustainable strategies suggested in the present research study.

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Over the last decade, the mounting significance of *hyper-local* food as the primary intention of public and policy interest has been stressed in a combination of political, economic and sociocultural conditions (De Chabert-Rios & Deale, 2018; Kim et al., 2020a). Accordingly, *hyper-local* food provided by *hyper-local* restaurants and sustainable strategies has been brought into the middle-of-the-road actively affianced to reform new hospitality amenities, operations standards and classifications (Chan et al., 2021), especially in an emerging economy such as China (Li et al., 2020). For that reason, *hyper-local* food consumption and sustainability are exhibited, especially in Chinese restaurants (Liu et al., 2021). This helps us conceptualize that intersecting sustainable strategies can drive *hyper-local* Chinese restaurateurs' higher and more sustainable competitive advantage. Given this, one expression calls for this multifaceted phenomenon of future *hyper-local* Chinese restaurants to become sustainable and inclusive green (Sharma et al., 2020). The present study thus examines Chinese *hyper-local* restaurateurs that directly influence Chinese *hyper-local* restaurants and will be more responsive if sustainable strategies are addressed to identify and optimize the potential critical success factors (CSFs).

In contrast, researchers have explored the restaurant industry and addressed several CSFs, i.e., customer experience, robotic technology and modernization, through several techno-conceptualizations (Lee et al., 2021; Rana, 2021; Zhong et al., 2021). For instance, much has been argued about conveying restaurant activity, service robot interaction, quality at macro and micro levels and leisure service (Chan et al., 2021; Hsiao et al., 2018). The present study emphasized responsiveness to essential CSFs grounded on resource-based theory (RBV) to entail our research question: how and when do *hyper-local* Chinese restaurateurs adopt sustainable strategies for robust *hyper-local* resource operations and policymaking? We argued that CSFs identified to establish sustainable strategies tend to cultivate *hyper-local* restaurateurs' resources, seek the right opportunities for sustainable change, predict operations complications and enable future decision-making. Thus, carrying new resource-based conduct (Liu et al., 2021) might develop and help foster the *hyper-local* Chinese industry's competitive advantage.

Recently, Chinese restaurants have reached sustainable resolutions to promote growth and development (Liu et al., 2021; Zhong et al., 2021). However, to cope with the entire strategy, *hyper-local* restaurateurs have several CSFs to preserve, sustain and thrive in the post-sustainability regimes. For instance, (a) green customer education (Lee et al., 2021), (b) green awareness, motivation and capability (Schniederjans & Khalajhedayati, 2021), (c) high-commitment work practices (HCWPs) (Chen et al., 2017). Moreover, (d) green entrepreneurial orientation (Alonso-Almeida & Álvarez-Gil, 2018) is suggested as CSFs to help nurture the *hyper-local* restaurants' success and increase sustainable production and consumption. Such competitiveness retains green awareness, motivation and capability (Schniederjans & Khalajhedayati,

2021; Tiwari et al., 2021). These CSFs help us capture sustainable resource-based obligations for both *hyper-local* restaurateurs and restaurants, as justified in the academic settings of the RBV (Barney, 2001). The RBV describes the valuable resources by identifying organizational factors (e.g., CSFs) and impact personal dynamics (e.g., *hyper-local* restaurateurs), in turn increasing organizational performance (e.g., *hyper-local* restaurant performance). Similarly, RBV blends resource processes (i.e., valuable, rare, inimitable and organized) with individual behaviour change, providing us with the basis for proposing and identifying CSFs intersecting to bring sustainable strategies to spur organizational competitive advantage. This is also consistent with the reciprocal determinism construct of RBV, which, in the present context, implies that *hyper-local* restaurateurs are valuable and rare agents to bring sustainable production and performance (Barney, 2001; Canh et al., 2021).

The present study is structured into four major Chapters. The literature review in Chapter 2 contains a detailed CSFs explanation and MCDM methods, Theory of Fuzzy Set and Mathematical definitions. Chapter 3 is based on research methods, sampling, model procedure and results. The final Chapter, 4.0, significantly elaborated the interesting theoretical, practical and managerial implications and future research agendas for upcoming research to cope with *hyper-local* restaurants' knowledge and deep-rooted understandings. Finally, the conclusions have been presented in Chapter 5.0.

## Literature Review

### Significance of Sustainable Strategies and Hyper-Local Restaurateurs' Mitigation

*Hyper-local* food is associated with adverse consequences and has become a significant tourism and health issue in developed, developing and emerging countries (Melkonyan et al., 2020). The *hyper-local* food scenario is becoming even more detrimental with an increasing number of affected local and international consumers and customers staying in famed tourist destinations (Rousta & Jamshidi, 2020), such as the Muslim quarter of Xi'an China. Unhygienic raw materials, production processes and finished *hyper-local* food may cause and be found in various dietary complications (Choe & Kim, 2018). Chronic toxicity and digestive problems mark multiple physiological effects on international and local tourists. Researchers so far indicate that the significance of sustainable strategies plays a vital role in underpinning *hyper-local* restaurateurs' and restaurants' mitigation process (De Chabert-Rios & Deale, 2018). This helps us indicate and formulate sustainable strategies to cope with sustainable services and operations for *hyper-local* extenuation, especially for the Chinese *hyper-local* industry. Admittedly, a sustainable strategy is developing products or services in an extra sustainable manner throughout their entire product life cycle (Han & Huo, 2020). Such *hyper-local* transition to sustainable growth is contingent on a

sustainable corporate strategy decoding environmental protection, innovation and economic prosperity (Hsiao et al., 2018). As a result, researchers used to mitigate the ‘green process’ to achieve a sustainable competitive advantage (Demirel et al., 2019; Han & Huo, 2020).

Taking the discussion forward, and considering the prominence of going *green*, understand the macro-micro levels in the Chinese *hyper-local* industry, where environmental sensitivity can be upsetting indigenous regimes and local vs. international inhabitants (Hsiao et al., 2018), especially in the Muslim quarter—the popular tourist destination. Drawing on RBV, we discuss the awareness of *hyper-local* restaurateurs’ performing as a resource-based agents to spur a sustainable environment, reassure sustainable strategy and offer social responsibility to authenticate sustainability orientation into broader theory and practice. In line with these viewpoints, green customer education relies on refining *hyper-local* restaurateurs about green plans, which the present study intends to impact Chinese *hyper-local* restaurateurs and restaurants’ competitive advantage.

### **Green Customer Education and Hyper-Local Restaurateurs’ Mitigation**

The amount of green customer education encourages the *hyper-local* Chinese industry goal of increasing green service design (Lee et al., 2021). The fact is that green customer education is not static but highly dynamic along with the increasing green customer needs and choices (Liu & Tse, 2018). The current CSF identification leads *hyper-local* Chinese restaurateurs to those products or services which are friendly to the environment. Similarly, various green products and services (Hsiao et al., 2018). Green customer education is ‘an appropriate communication strategy for promoting green products’ (Sari et al., 2021). Prior research illuminated that only customer education is a strategic ability to notify, clarify and establish prevalent conceptions for customers (Peng & Li, 2021; Sari et al., 2021). However, green customer education develops *hyper-local* restaurateurs’ green awareness and assembles their interest to face, maintain and thrive green in more efficient and strategic pathways.

The understanding of green customer education is manifested to incorporate new insights into what *hyper-local* restaurateurs’ knowledge facilitates a customer to purchase *hyper-local* food and drags him/her more closely to adopt a straightforward environmental approach. Prior studies investigated dynamic customer experience, customer choice and intention on service innovation satisfaction (Lee et al., 2021; Liu & Tse, 2018; Peng & Li, 2021). The present study draws on RBV (Barney, 2001) and identifies green customer education that will likely implicate consumer interactions and restaurateurs’ strategic learning to perform a set of applicable conducts to ensure sustainable performance. Such potential CSF is pliable and

ductile in generating a rare resource agent that advances *hyper-local* restaurateurs’ service innovation skills in performing green standards. Accordingly, the prior research under-explored green customer education CSF within the context of *hyper-local* restaurateurs’ and green *hyper-local* service standards. We argue that the *hyper-local* restaurant’s interface with customers in educating them about their green education offerings is a significant and inexpensive easy bonding of what luxury five-star and seven-star restaurants revealed by their inflated and complex structure.

### **Green Ability, Motivation and Capability Engendering Hyper-Local Restaurateurs**

The green ability of *hyper-local* restaurateurs reflects their capability and motivates them to manage their environmental impact by providing environmentally conscious products, services and operations (Schniederjans & Khalajhedayati, 2021). The present study identified green ability, motivation and capability practice among *hyper-local* restaurateurs and restaurants to advocate efficiency and synergy between customers and consumers, facilitate ecological performance and maintain *hyper-local* restaurants’ performance. Past studies explain that green ability, motivation and capability broadly affect consumer-purchasing decisions, supply chain integration and green creativity (Han & Huo, 2020; Luu, 2021). Similarly, the present research is grounded on RBV (Barney, 2001), advocating that *hyper-local* restaurateurs are contingent upon such ability, motivation and capability that increases the likelihood of reaching higher sustainability by fruitfully spurring this CSF. Hence, green ability, motivation and capability signal to the market, stakeholders and customers that *hyper-local* industry positively affects sustainable operational strategy and overall competitive advantage.

Luu (2021) notes that restaurants experience a high level of improved sustainability while using green practices, such as green ability, motivation and capability. Consequently, when *hyper-local* restaurateurs adopt such green ability, motivation and capability, in turn, enrich *hyper-local* restaurants’ image, build loyalty in customers, stakeholders’ reliability and trust, and ensure a better overall *hyper-local* performance. Also, articulating the nature of sustainability toward local food suppliers such as *hyper-local* restaurateurs does not require significant financial investment but provides an immediate economic benefit (Melkonyan et al., 2020).

### **High-Commitment Work Practices and Hyper-Local Restaurateurs’ Mitigation**

A thriving local business has multifaceted needs that require robust human resource management (HRM) system that props up the interesting quality food at low prices, prevents mishaps, mitigates risks and lines up with luxury brands and other competitors (Kim, 2019). Naturally, such multifaceted

HRM needs will vary widely depending on the size and complexity of the restaurants. Larger restaurants often have a full-fledged HRM department compared to local food businesses and restaurants have only one person handling such happenings. Prior research stated that HRM systems like high-commitment work practices (HCWPs) are based on *control* and *commitment* (Arthur, 1994). Similarly, Chen et al. (2017) inform that ‘control approaches aim to increase efficiency, reduce labour cost, enhance reward system, while commitment approaches aim to robust effectiveness and productivity’ (p. 3). However, *how* and *when* ‘commitment’ and ‘control’ HCWPs significantly wave *hyper-local* Chinese restaurateurs and restaurants’ competitive advantage will make us inquisitive about identifying and raising this CSF within a *hyper-local* context.

Building HCWPs application and execution means encouraging employees with extensive training and development, performance-based appraisal setups, compensation and reward systems, and wide-ranging organizational support (Chen et al., 2017; Kim, 2019; Zhang et al., 2021). Recently, HRM scholars have characterized HCWPs in varied themes. For instance, Kim (2019) found that HCWP influences job engagement in the hotel industry. The verdicts of Li et al. (2020) explained that HCWPs serve as a strategic way out of hospitality management. Based on such beliefs, we contend that the allied literature is lacking from two perspectives: (a) how *hyper-local* Chinese restaurateurs can yield HCWPs, and (b) when HCWPs impact *hyper-local* Chinese restaurants’ performance. This help improves *hyper-local* Chinese restaurants’ actions globally if addressed on time. Looking into the RBV lens, HCWPs are considered rare and valuable resource negotiators rooted in *hyper-local* Chinese restaurateurs and restaurant traditional philosophy, ancient HRM plethora, thus changing and fostering *hyper-local* capabilities to spur sustainable performance.

### **Green Entrepreneurial Orientation and Hyper-Local Restaurateurs**

Environmental issues are becoming increasingly significant in the COVID-19 pandemic (Chan et al., 2021), significantly threatening local consumer survival (Zaoui et al., 2021), resulting in an impact not only on developing economies but emerging and developed economies as well. Government and scholars have paid more attention to controlling such environmental degradation, especially from local food consumption (Choe & Kim, 2018; Melkonyan et al., 2020). In particular, recent studies have suggested that green entrepreneurial orientation plays a crucial role in achieving local business performance and minimizing environmental impacts and sustainability challenges (Canh et al., 2021; Demirel et al., 2019). Scholars theorized green entrepreneurial orientation as an emergent phenomenon and ‘pay special attention to the environmental enactment of green entrepreneurs and its relationship with strategy, brand

reputation, and long-term business growth’ (Alonso-Almeida & Álvarez-Gil, 2018). For that reason, green entrepreneurial activity is an umbrella term for numerous hospitality management innovations that target social, economic and environmental challenges (Canh et al., 2021; Luu, 2021). However, green entrepreneurial orientation has been seen in luxury hotels and larger hospitality businesses. This helps us identify green entrepreneurial orientation as critical CSF, leading to the success of *hyper-local* restaurateur’s sustainable success and performance.

Advancing the RBV lens, in highly uncertain situations, organizations pursue to capture business opportunities that lead to sustainable competitive advantages and advance environmental performance (Barney et al., 2021). In this context, green entrepreneurial orientation mainly emphasizes those environmental activities by capturing eco-friendly opportunities and prospects while pursuing business operations (Alonso-Almeida & Álvarez-Gil, 2018). However, the green entrepreneurial orientation is threatened in *hyper-local* restaurateurs and restaurants context and has been largely ignored. This connection helps us select green entrepreneurial orientation as strategic CSF for the present study within the *hyper-local* restaurant context. We argue that by fostering green entrepreneurial orientation, *hyper-local* restaurateurs can be succeeded in (a) improving and adopting green practices within the core *hyper-local* business, (b) acquiring more interest and aims among other *hyper-local* partners, (c) acquiring and leveraging green knowledge to perform green activities more extensively. Consequently, green entrepreneurial orientation is a new promise to improve both sides of *hyper-local* restaurateurs’ sustainable entrepreneurship knowledge and orientation (Muneeb et al., 2020; Ruiz-Ortega et al., 2021). Understanding how green entrepreneurial orientation coupled with *hyper-local* restaurateurs’ and restaurant performance is essential for CSF and theoretically paves a new agenda for the *hyper-local* hospitality research gap.

The present research has selected four critical success factors based on the literature review: green customer education, green ability, motivation and capability, high-commitment work practices and green entrepreneurial orientation. Unlike previous research, a hybrid MCDM approach was used, based on Delphi’s methods, BWM and HSFOWA, to filter and rank managerial preferences. Following the prior research, MCDM and RBV combination unveiled the sustainable strategies (Yasmin et al., 2020), significantly influencing restaurant sustainable growth and development.

### **Multi-Criteria Decision-Making (MCDM)**

The MCDM method has been applied as an incredible procedural process for qualitative and quantitative research (Yasmin et al., 2020). Interpreting real-world problems via MCDM is conceptualized as an insightful application (Liou et al., 2021). These methods are designed to advance

the various approaches to unfold the twenty-first-century challenging gaps, e.g., ELECTRE-3 and 4, Prometheus-2, the VIKOR method, Cooperative Game theory, Composite Programming, Analytical Hierarchy Process, Multi-Criteria Utility Theory, Multi-criterion Q-Analysis, space mission via multi-attribute fuzzy ABC classification (Liu et al., 2021; Yasmin et al., 2020).

### Best–Worst Method (BWM)

BWM has been executed to identify the best (e.g., most important, most desirable) and worst (e.g., least essential, least desirable) criteria by decision-makers (DM) based on the weight of the criteria that was determined through pairwise comparison (Rezaei, 2016). Similarly, Rezaei et al. (2015) and Rezaei (2016) have highlighted the BWM method's initial strength in incorporating and implementing to assign every criterion pair (Mahdiraji et al., 2021). Accordingly, in other MCDM models, DM assigns his/her preferences by the score to the factor (Rezaei, 2016). Whenever a DM is put into action, the equality  $a_{ij} = \frac{1}{a_{ji}}$  holds, where  $a_{ij}$  the initially

allotted score to the criterion pair  $ij$  is. The pairwise evaluations grounded on  $n$  criteria, DMs demonstrate their preferences for  $\frac{n(n-1)}{2}$  pairs. To estimate the uniformity proportion of pairwise assessments, Equation (1) is used:

$$a_{ij} \times a_{jk} = a_{ik} \quad \forall i, j \quad (1)$$

The BWM method is organized into the following important steps.

Step 1: Delineate  $n$  criteria for decision building.

Step 2: Ascertain the best (B) and worst (W) criteria from the  $n$  criteria demarcated in step 1.

Step 3: Ascertain an ordinal number ranging from 1 to 9 for the rest of the criteria  $j$  grounded on the best criterion B such that the preference rank is recognized as:  $A_B = (a_{B1}, a_{B2}, \dots, a_{Bn})$ , where  $a_{Bn}$  characterizes the preference rank of each criterion  $n$  relative to the best criterion B.

Step 4: Ascertain an ordinal number ranging from 1 to 9 for the rest of the criteria  $j$  grounded on the worst criterion W, such that the preference rank is recognized as:  $A_W = (a_{1W}, a_{2W}, \dots, a_{nW})^T$ , where  $a_{jW}$  characterizes the preference rank of each criterion  $n$  relative to the worst criterion W.

Step 5: Create the optimum weights for each one of the  $n$  criteria ( $W_1^*, W_2^*, \dots, W_n^*$ ) based on the lowest and the highest entire

variance among  $\left| \frac{W_B}{W_j} - a_{Bj} \right|$  and  $\left| \frac{W_j}{W_W} - a_{jW} \right|$  for all  $j$  criteria.

$$\text{Min max}_j \left\{ \left| \frac{W_B}{W_j} - a_{Bj} \right|, \left| \frac{W_j}{W_W} - a_{jW} \right| \right\}$$

s.t.

$$\sum_j W_j = 1 \quad (2)$$

$$W_j \geq 0 \text{ for all } j$$

Model (2) is interpreted in the following way:

Min  $\xi$

s.t.

$$\left| \frac{W_B}{W_j} - a_{Bj} \right| \leq \xi \text{ for all } j \quad (3)$$

$$\left| \frac{W_j}{W_W} - a_{jW} \right| \leq \xi \text{ for all } j$$

$$\sum_j W_j = 1$$

$$W_j \geq 0 \text{ for all } j$$

Associating with other pairwise-based MCDM approaches, this method has  $4n - 5$  controls as a substitute for  $2(2n - 3)$ . The supplementary restraint  $\sum_j W_j = 1$  forces a not-unfilled optimum clarification.

For calculation of the uniformity rate, Equation (4) should be used:

$$\text{Consistency rate} = \frac{\xi^*}{\text{Consistency Index}} \quad (4)$$

The uniformity rate depicts how consistent intelligence developed through experts/DMs, while the consistency index personifies the higher intermission of a best–worst comparison,  $\widetilde{u_{BW}}$ , is operative for individual standards upon the support  $[1_{BW}, u_{BW}]$  (Mahdiraji et al., 2021). The uniformity rate of pairwise comparisons was assorted from 0 to 1. When the ratio is close to 0, a reliable pairwise comparison designates. In contrast, when it is close to 1, this identifies an unreliable pairwise comparison. This subject can be attempted by resolving the archetypal approach (3) by employing an adapted set of constrictions, as anticipated in the model (5)

$$\left\{ \begin{array}{l} \left| \frac{W_B}{W_j} - a_{Bj} \right| \leq \xi^* \text{ for all } j \\ \left| \frac{W_j}{W_W} - a_{jW} \right| \leq \xi^* \text{ for all } j \\ \sum_j W_j = 1 \\ W_j \geq 0, \text{ for all } j \end{array} \right. \quad (5)$$

If one needs a uniformity rate of 0 ( $\xi^* = 0$ ), each constraint  $\left| \frac{W_B - a_{Bj}}{W_j} \right| \leq \xi^*$  should be transformed into  $w_B - a_B w_B = 0$  and, consistently, each constraint  $|w_j/w_w - a_{jw}| \leq \xi^*$  should be transformed into  $w_j - a_{jw} w_w = 0$  (Rezaei, 2016; Rezaei et al., 2015).

### Order Weights Average (OWA)

OWA has been defined as a wide-ranging method of MCDM in optimizing weights, including efficient decision-making optimization and inspiring results (Liou et al., 2021). At first, Yager (1998) acquaint with the OWA technique for strategic decision-making, and after that, this practice was applied in numerous conducts of operations research. The OWA method contemplates order weights different from standard ones (Hajizadeh et al., 2020). The method may be more affected to meet strategic optimization. Following is the detailed mathematical explanation:

$$F(h_{s1}, h_{s2}, \dots, h_{sn}) = \sum_j w_{hs} b_{hs} \quad (6)$$

Where  $W = [w_{h1}, w_{h2}, \dots, w_{hn}]^T$ .  $w_{hs} \in [0, 1]$ ,  $\sum_i w_{hi} = 1$ .  $b_{hs}$  represents the largest  $j$ th of  $w_{hi}$ .

The orness measure is used for evaluating the decision-maker's attitude.

$$\text{Orness}(w_{hs}) = \frac{1}{n-1} \sum_{i=1}^n [(n-1)w_{hi}] \quad (7)$$

For a pessimistic attitude, if  $w_{hs}$  is selected then  $w_{hs} = w_{hs}^* = [0, 0, \dots, 1]^T$ . This is used for the aggregation rule of a pessimistic strategy.

For an optimistic attitude, if  $w_{hs}$  is selected then  $w_{hs} = w_{hs}^* = [1, 0, 0, \dots, 0]^T$ . This is used for the aggregation rule of an optimal strategy.

For a normative approach, when  $w_{hs}$  is selected, then

$$w_{hs} = w_{hsAVE} \left[ \frac{1}{n}, \frac{1}{n}, \dots, \frac{1}{n} \right]^T \quad (8)$$

This approach is used for a normative strategy.

The computation of the maximum entropy distribution of weight based on orness measure is illustrated as follows:

$$\text{Maximize: } H(w_{hs}) = -\sum w_{hi} \ln(w_{hi}) \quad (9)$$

$$\text{s.t. } \begin{cases} \alpha = \frac{\sum_{i=1}^n [(n-1)w_{hi}]}{n-1} \\ \sum_i w_{hi} = 1 \\ 0 \leq w_{hi} \leq 1 \end{cases}$$

### Theory of Fuzzy Set

Decision-making operations via optimization play a strategic role in hospitality management, as it refers to a strategic process that layoff all the processes for immediate calculation, action and execution (Yasmin et al., 2020). Such decision-making covers substantial results to cope with the grand challenges of disasters through a fuzzy set in prior hospitality literature (Liu et al., 2021; Mahdiraji et al., 2021). The fuzzy sets encompass the mathematical modelling and deep extension of prime notions and optimizations (Hajizadeh et al., 2020; Yazdi et al., 2021). These crucial sets have been defined as the universe of discourse—a classical set. The detailed mathematical definitions and explanations are as under:

### Mathematical Definitions

Definition 1: We have set  $X$ , which is an intuitionistic fuzzy set (IFS) and  $A$  on  $X$  is a term of two functions

$$\begin{aligned} \mu: X \rightarrow [0, 1] \text{ and } \nu: X \rightarrow [0, 1] \text{ and} \\ 0 \leq \mu(x) + \nu(x) \leq 1 \text{ for all } x \in X \end{aligned} \quad (10)$$

$\mu$  shows the degree of membership, and  $\nu$  illustrates the non-membership of  $x$  of the  $A$  set. IFS is

$$\langle x, \mu_A, \nu_A \rangle \text{ For } x \in X \quad (11)$$

When we have two  $A$  and  $B$  IFS in function  $\mu_A, \nu_A, \mu_B$  and  $\nu_B$ , the operations are

(a) Complement

$$A^c = \{ \langle x, \mu_A(x), \nu_A(x) \rangle \} \quad (12)$$

(b) Union

$$A \cup B = \left\{ \langle x, \max(\mu_A(x), \mu_B(x)), \min(\nu_A(x), \nu_B(x)) \rangle \right\} \quad (13)$$

(c) Intersection

$$A \cap B = \left\{ \langle x, \min(\mu_A(x), \mu_B(x)), \max(\nu_A(x), \nu_B(x)) \rangle \right\} \quad (14)$$

(d)  $\oplus$ -union

$$A \oplus B = \left\{ \langle x, \mu_A(x) + \mu_B(x) - \mu_A(x), \mu_B(x), \nu_A(x) \nu_B(x) \rangle \right\} \quad (15)$$

(e)  $\otimes$ -union

$$A \otimes B = \left\{ \langle x, \mu_A(x) \mu_B(x), \nu_A(x) + \nu_B(x) - \nu_A(x) \nu_B(x) \rangle \right\} \quad (16)$$

Definition 2: Consider  $X$  as a reference set, a hesitant fuzzy set of  $X$  with function  $h$ . When used,  $X$  is a subset of  $[0, 1]$ .  $h(x)$  is finite.

Definition 3: If  $X$  is a reference set, a hesitant fuzzy set is

$$\text{Empty set: } h(x) = \{0\} \text{ for all } x \in X \quad (17)$$

$$\text{Full set: } h(x) = \{1\} \text{ for all } x \in X \quad (18)$$

$$\text{Complete ignorance } x \in X, h(x) = [0, 1],$$

$$\text{Nonsense set } h(x) = \emptyset$$

$\mu(x) = 1$  And  $\mu(x) = 0$  points out empty and complete sets, which cannot be nonsense or complete ignorance.

With the fuzzy set  $\mu$  on the set of reference  $[0, 1]$ , the hesitant fuzzy set shows  $\mu^{-1}$ .

Definition 4: The hesitant fuzzy set  $h(x)$  then  $h(x) = \mu^{-1}(x)$ . Then

$$h(x) = \{\alpha \mid \alpha \in X, \mu(\alpha) = x\} \quad (19)$$

Consider  $M = \{\mu_1, \dots, \mu_N\}$  and  $N$  is a membership function. Hesitant fuzzy set of  $M$ ,  $h_M$  is

$$h_M(x) = \cup_{\mu \in M} \{\mu(x)\} \quad (20)$$

Consider DMs allocate their preferences showing that  $M$  and  $h_M$  is the set of opinion experts.

IFS Operations are:

We have  $h_1, h_2$  and  $h_2$  as an IFS. Operations are

$$\text{Lower bound: } h^-(x) = \min h(x) \quad (21)$$

$$\text{Upper bound: } h^+(x) = \max h(x) \quad (22)$$

$$\alpha - \text{Upper bound: } h_\alpha^+(x) = \{h \in h(x) \mid h \geq \alpha\} \quad (23)$$

$$\alpha - \text{Lower bound: } h_\alpha^-(x) = \{h \in h(x) \mid h \leq \alpha\} \quad (24)$$

$$\text{Complement: } h^c(x) = \cup_{\gamma \in h(x)} \{1 - \gamma\} \quad (25)$$

$$\begin{aligned} \text{Union: } (h_1 \cup h_2)(x) &= \{h \in (h_1(x) \cup h_2(x)) \\ &\mid h \geq \max(h_\alpha^-, h_\alpha^-)\}, \text{ or, equivalently} \\ (h_1 \cup h_2)(x) &= h_1(x) \cup h_2(x)_\alpha^+ \\ \text{for } \alpha &= \max(h_1^-, h_2^-) \end{aligned} \quad (26)$$

$$\begin{aligned} \text{Intersection: } (h_1 \cap h_2)(x) &= \{h \in (h_1(x) \cap h_2(x)) \\ &\mid h \geq \min(h_\alpha^-, h_\alpha^-)\}, \text{ or, equivalently} \\ (h_1 \cap h_2)(x) &= h_1(x) \cap h_2(x)_\alpha^+ \\ \text{for } \alpha &= \min(h_1^-, h_2^-) \end{aligned} \quad (27)$$

For the definition of two hesitant fuzzy sets, if a hesitant fuzzy set was a possible set of alternatives for all  $x$ , the lower bound of  $h_1 \cup h_2$  largest two of  $h_1^-, h_2^-$ . An intersection is a similar approach (Liu et al., 2021).

Consider  $h_1, h_2$  and  $h_2$  as an IFS. The properties are:

$$\text{Complement is } (h^c)^c = h \quad (28)$$

IFS is a kind of fuzzy type 2. IFS  $h$  based on fuzzy type 2 is

$$\mu^2(x)(y) = \begin{cases} 1 & \text{if } y \in h(x) \\ 1 & \text{if } y \notin h(x) \end{cases} \quad (29)$$

Envelope  $A_{\text{env}}(h)$  of an IFS  $h$  has these properties

$$A_{\text{env}}(h^c) = (A_{\text{env}}(h))^c \quad (30)$$

$$A_{\text{env}}(h_1 \cup h_2) = A_{\text{env}}(h_1) \cup A_{\text{env}}(h_2) \quad (31)$$

$$A_{\text{env}}(h_1 \cap h_2) = A_{\text{env}}(h_1) \cap A_{\text{env}}(h_2) \quad (32)$$

## Research Methods

### Sampling and Procedure

The present research reviewed the state-of-the-art literature review to identify the CSFs for *hyper-local* restaurateurs and restaurants. Numerous CSFs are impacting *hyper-local* restaurateurs and restaurants. However, the current study has considered the four prominent CSFs that are found renowned and most prominent. For instance, green customer education, green awareness, motivation, capability, high-commitment work practices and green entrepreneurial orientation. After selecting and identifying CSFs, the researchers approached three *hyper-local* restaurateurs who owned their restaurants in the Muslim quarter, Xi'an city, China. These *hyper-local* restaurateurs were from diverse divisions, such as (a) holding dry fruit gardens and farmhouses, (b) vegetable farmhouses and (c) fresh fruit, especially cherry fruit garden and farmhouse situated in Baoji village, a small fruiting village in the west of Xi'an. The researchers first invited them to participate in the present study, with a prime guarantee that their answers remain anonymous and confidential.

Second, we visited their gardens and farmhouses and asked them to answer our structured interviews on a 5-point Likert scale (1 strongly disagree to 5 strongly agree), following the guide Pettersen and Durivage (2008) proposed. The structured interview was first translated into Chinese and then back-translated to English, with the leading expertise provided by experts in the present studies

to confirm the accuracy, reliability and validity (Berry, 1980). Each *hyper-local* restaurateur runs two prominent restaurants in the Muslim quarter, Xi'an city, where they trade fresh fruits, dry fruits, and a variety of fresh vegetables daily. Therefore, the present research is based on six *hyper-local* restaurants in Xi'an, China. To limit common method bias, we collected data on the selected CSFs from two informants (the owner of the *hyper-local* restaurateur and senior manager sales who sell/purchase their finished fruits and vegetables) while interviewing each *hyper-local* restaurateur (Podsakoff et al., 2003). Our structured interview questionnaire has two parts: (a) green customer education, green awareness, motivation and capability questions, and (b) high-commitment work practices and green entrepreneurial orientation questions. The detailed model procedure is presented in the Model Procedure section in Research Methods.

### Model Procedure

*Step 1. CSFs identification:* The present study identified four CSFs for *hyper-local* restaurants extracted from prior studies.

*Step 2. CSFs selection:* This study examined the appropriate CSFs from extensive literature from state-of-the-art research in strategic hospitality management (Table 1).

*Step 3. CSFs filtration:* Delphi's method is used for filtering factors and customized for this research. In this step, a questionnaire design is based on all profound CSFs. Next, DMs are requested to weigh their preferences constructed on a 5-point Likert point.

*Step 4. Finding primary weight by BWM:* The BWM method is used for profound optimization to achieve the primary weights.

*Step 5. Ranking by HFSOWA:* The results show that each restaurant has the highest vs. worst priority according to the weight coefficients. The detailed research approach is presented in Figure 1.

### DMs Scaling

In the present study, DMs were designated from a particular zone concerning strategic hospitality management and tourism. The preliminary scale information specified in the sum-ups of these DMs is shown in Table 1.

### Results

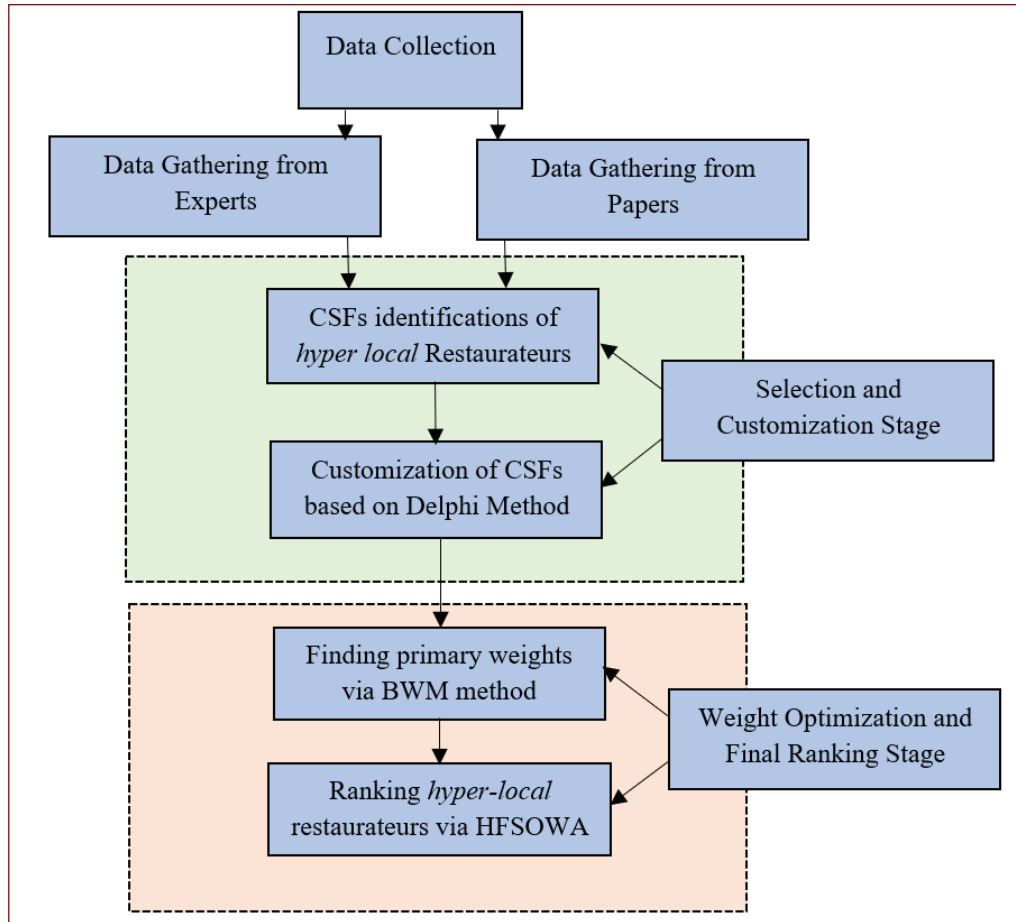
Operations approaches have insightful paradigms on fuzzy-based DMs preferences in hospitality management (Liou et al., 2021; Yasmin et al., 2020). Therefore, in this study, nine decision-makers have been reported to examine the significance of the weight criteria. To analyze the data through BWM, the Lingo V.18 and the HSFOWA method were performed in EXCEL V.2017 (Mahdiraji et al., 2021). This study constructs the criteria weights, where each DMs has weighted values for each characteristic of *hyper-local* restaurateurs. Following the prior research by Yasmin et al. (2020), the DMs preference found crisp numbers, fuzzy numbers and defuzzy numbers presented in Table 2. Next, based on the BWM method and HSFOWA weight optimization, a set of four factors revealed the most effective weight optimization, presented in Table 3. The HSFOWA findings represent 81.32%, which also aligns with the prior research findings of Hajizadeh et al. (2020). Next, we obtained values of each DMs criteria and aggregated them using the preferences of the CSFs. The decision matrix was designed and assessed through BWM. These results show the optimized weight criteria of the selected four CSFs. In BWM results (Table 3), we found the highest criteria weight of 0.4 for green customer education, which is significant. Prior studies argued that customer education significantly introduced service innovation packages (Peng & Li, 2021). Thus, our BWM results highlight that using these CSFs significantly enhances *hyper-local* service innovation.

The present study used Equation (8), an extended initial decision-making matrix (Table 4). Further, applying Equation (9), we demonstrate the final decision matrix. The final decision matrix and the highest criteria values are revealed in Table 5. We found the most satisfactory result when the green entrepreneurial orientation criterion has been identified as the most influential since it has the highest value of the weight coefficient of 0.19 (Table 3). Preceding studies found that

**Table 1.** DMs Scale & Information.

Experts	Education & Major	Exp: (years)	Institutions
Expert→1	PhD in Hospitality and Management	10	Xi'an Jiaotong University
Expert→2	PhD in Hospitality and Tourism	12	Xi'an Jiaotong University
Expert→3	PhD in Food and Management	08	Xi'an Jiaotong University
Expert→4	<i>Hyper-Local</i> restaurateur	15	Xi'an
Expert→5	PhD in Hospitality Management	10	Shaanxi Normal University
Expert→6	<i>Hyper-Local</i> restaurateur	09	Xi'an
Expert→7	Masters in Hospitality Management	03	Xi'an Jiaotong University
Expert→8	<i>Hyper-Local</i> restaurateur	11	Xian
Expert→9	Masters in Food and Management	02	Shaanxi Normal University





**Figure 1.** The Proposed Research Approach.

**Table 2.** Preferences of Decision Makers.

Crisp Number	1	2	3	4	5	6	7	8	9
Fuzzy number	(0, 0.2)	(0.1, 0.2, 0.3)	(0.2, 0.4)	(0.3, 0.4, 0.5)	(0.4, 0.6)	(0.5, 0.6, 0.7)	(0.6, 0.8)	(0.7, 0.8, 0.9)	(0.9, 1)
Defuzzy number of hesitant	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.95

**Table 3.** Preferences of DMs & BWM Weights.

Preferences of DMs Represent the Best Criterion				
Weights	Green Customer Education	Ability, Motivation and Capability	Green Entrepreneurial Orientation	
	0.4	0.7	0.9	
Preferences of DMs about the worst criterion				
Weights	Green Customer Education	Ability, Motivation and Capability	HCWPs	
	0.8	0.6	0.7	
Weights of factors revealed through BWM				
Weights	Green Customer Education	Ability, Motivation and Capability	HCWPs	Green Entrepreneurial Orientation
	0.4	0.23	0.18	0.19

**Table 4.** Hesitant Fuzzy and Defuzzy Numbers of Decision Matrix.

		Green Customer Education	Ability, Motivation and Capability	HCWPs	Green Entrepreneurial Orientation
Hesitant Defuzzy numbers	R <sub>1</sub>	(0.7, 0.8, 0.9)	(0.6, 0.8)	(0.5, 0.6, 0.7)	(0.4, 0.6)
	R <sub>2</sub>	(0.9, 1)	(0.6, 0.8)	(0.7, 0.8, 0.9)	(0.5, 0.6, 0.7)
	R <sub>3</sub>	(0.5, 0.6, 0.7)	(0.4, 0.6)	(0.6, 0.8)	(0.7, 0.8, 0.9)
	R <sub>4</sub>	(0.4, 0.6)	(0.4, 0.6)	(0.5, 0.6, 0.7)	(0.6, 0.8)
	R <sub>5</sub>	(0.7, 0.8, 0.9)	(0.6, 0.8)	(0.6, 0.8)	(0.9, 1)
	R <sub>6</sub>	(0.4, 0.6)	(0.3, 0.4, 0.5)	(0.5, 0.6, 0.7)	(0.6, 0.8)
Hesitant fuzzy numbers					
	R <sub>1</sub>	0.8	0.7	0.6	0.5
	R <sub>2</sub>	0.95	0.7	0.8	0.6
	R <sub>3</sub>	0.6	0.5	0.7	0.8
	R <sub>4</sub>	0.5	0.5	0.6	0.7
	R <sub>5</sub>	0.8	0.7	0.7	0.95
	R <sub>6</sub>	0.5	0.4	0.6	0.7

**Note:** R > Restaurant; HCWPs > High-commitment work practices.

**Table 5.** Final Decision Matrix.

	Green Customer Education	Ability, Motivation and Capability	HCWPs	Green Entrepreneurial Orientation	Average	Rank
R <sub>1</sub>	0.0860	0.1253	0.1260	0.1176	0.4549	4
R <sub>2</sub>	0.0984	0.1300	0.1680	0.1412	0.5376	2
R <sub>3</sub>	0.0809	0.1138	0.1200	0.1446	0.4593	3
R <sub>4</sub>	0.0708	0.0975	0.1200	0.1205	0.4088	5
R <sub>5</sub>	0.0961	0.1300	0.1619	0.1750	0.5630	1
R <sub>6</sub>	0.0708	0.0975	0.1012	0.1143	0.3838	6

entrepreneurial orientation leads to sustainability orientation and acts as a resource agent by increasing the likelihood of organizational competitive advantage (Canh et al., 2021; Ruiz-Ortega et al., 2021). Thus, our findings further highlight green entrepreneurial orientation within a *hyper-local* context to use such an application to reboot organizational competitive advantage. Prior studies further contended that green entrepreneurial orientation develops sustainable momentum (Canh et al., 2021; Luu, 2021), the momentum the present research findings expect within the *hyper-local* context to participate and spur the national economy and higher *hyper-local* sustainable performance.

Despite the discussion, the preferences of HFSOWA numbers are shown in Table 2, and after that, they transfer to crisp data by the defuzzy formula:  $x = \frac{a + b + c}{3}$

a = lower number

b = middle number

c = higher number

DMs allocated their preferences to each criterion compared to the best and worst criteria. The best criterion has been found for green entrepreneurial orientation. The weight coefficient and the factors revealed through the BWM method are also presented in Table 3.

This study deployed the coefficients and transferred them into a defuzzy number by adopting the notions of prior research (Yasmin et al., 2020), which has been validated in Table 4. In addition, after calculations of defuzzy numbers, this study has measured the risk-taking (orness) of the model established via Equations (6) and (7). The hesitant fuzzy numbers of the decision matrix have been described in Table 6. The mathematical explanation is as under:

Uniformity rate = 0.99

$$\alpha = \frac{1}{3} \times 3 \times 0.4 + \frac{1}{3} \times 2 \times 0.23 + \frac{1}{3} \times 1 \times 0.18 = 0.61$$

$$W_1 = \left(\frac{1}{4}\right) 0.61 = 0.43$$

$$W_2 = \left(\frac{2}{4}\right) 0.61 = 0.65$$

$$W_3 = \left(\frac{3}{4}\right) 0.61 = 0.84$$

$$W_4 = \left(\frac{4}{4}\right) 0.61 = 1$$

Following Equation (8), this study has normalized the decision matrix, presented in Table 6.

**Table 6.** Normalized Decision Matrix.

	Green Customer Education	Ability, Motivation and Capability	HCWPs	Green Entrepreneurial Orientation
R <sub>1</sub>	0.193	0.200	0.150	0.118
R <sub>2</sub>	0.229	0.200	0.200	0.141
R <sub>3</sub>	0.145	0.143	0.175	0.188
R <sub>4</sub>	0.120	0.143	0.150	0.165
R <sub>5</sub>	0.193	0.200	0.175	0.224
R <sub>6</sub>	0.120	0.114	0.150	0.165

Finally, based on Equation (9), the final decision matrix has been shown among six *hyper-local* Chinese restaurants. The findings revealed that *hyper-local* Chinese restaurant number 5 is manifesting a robust sustainable strategy, while on the other hand, *hyper-local* Chinese restaurant number 6 has a minor performance. The final findings are presented in Table 5.

## Discussion

Response to the recent calls for more research on sustainable strategies (Cantele & Cassia, 2020; Hajizadeh et al., 2020; Hwang et al., 2020; Kim et al., 2020a) and *hyper-local* restaurants (De Chabert-Rios & Deale, 2018). This study highlighted RBV (Barney, 2001; Yasmin et al., 2020) and used MCDM methods, namely BWM and HSFOWA, to predict four significant CSFs spurring sustainable strategies in *hyper-local* restaurants. The findings of the present study help to reconcile the prior literature on the link between green entrepreneurial orientation and *hyper-local* Chinese restaurateurs' productivity and revolution (Kim et al., 2020b; Lee et al., 2021). Specifically, we found that green entrepreneurial orientation influences *hyper-local* Chinese industry, which is more constructive and robust. In addition, our fuzzy and defuzzy decision matrix findings help foster the impact of green entrepreneurial orientation—weight coefficients 0.17 as ranked first, in turn, considering a crucial predictor of Chinese *hyper-local* restaurants' integrity to contest future sustainability regimes (Cantele & Cassia, 2020; Liu et al., 2021). Also, our findings aligned with prior research to unveil other important CSFs, such as green customer education, green awareness, motivation, capability and HCWPs lay the foundation base to renovate *hyper-local* businesses (Chen et al., 2017; Sari et al., 2021; Schniederjans & Khalajhedayati, 2021). These results confirm an advanced likelihood and exhibit a more significant sustainability commitment in *hyper-local* food raised by Kim et al. (2020b). Thus, we align these findings to the insightful features of China's *hyper-local* industry (De Chabert-Rios & Deale, 2018), favouring younger *hyper-local* restaurateurs with more promising sustainable restaurants (Liu et al., 2021). In doing so, we have extended the scholarship of sustainable strategies by underlining the possible effects of CSFs on *hyper-local* restaurateurs (De Chabert-Rios & Deale, 2018). Therefore, our study

imprints and reinforces the sense of the sustainability process in a *hyper-local* context and vocalizes the need for future exploration to examine other CSFs' reasoning and to rebuild the *hyper-local* industry's sustainability progression and its spillover effects on *hyper-local* businesses. Given this, our findings imply the relevance of sustainable *hyper-local* industry in China, providing theoretical and practical implications.

## Theoretical Implications

This study makes three significant contributions. This study has first addressed the research limitations and revealed the novel context of *hyper-local* restaurants building sustainable strategies CSFs (a) green customer education and (b) ability, motivation and capability, (c) HCWPs and (d) green entrepreneurial orientation. Our findings indicate that the *hyper-local* restaurants adopt the identified CSFs, thereby transforming those sustainable CSFs into enriched productivity and participating values that *hyper-local* restaurateurs need to accomplish competitive advantage. The *hyper-local* restaurateurs never feel that their cognition has been affected, taking them one step toward sustainable competitive advantage (De Chabert-Rios & Deale, 2018). Such a sustainable one-step forward pushes productivity and service operations, which in turn serves as a sustainable *hyper-local* food consumption (Liu et al., 2021) that can help foster *hyper-local* restaurants to fulfil their responsibilities to perform more sustainably. By illuminating these CSFs' roles, the current study fuels and nurtures Xi'an Muslim quarter indigenous contribution to the domestic and national economy and incentivizes *hyper-local* industry at a broader level of theory and practice.

Second, by incorporating RBV (Barney, 2001), we found the borderline exigency impact of green entrepreneurial orientation on *hyper-local* restaurant production and services. The findings of the current scholarship help to reunite the prior works on the link between green entrepreneurial orientation and restaurants' innovative productivity (Canh et al., 2021; Luu, 2021; Ruiz-Ortega et al., 2021). Specifically, we found a novel straight impact of green entrepreneurial orientation on the sustainable performance of *hyper-local* restaurants through green customer education and HCWPs, which is more constructive for the worldwide *hyper-local* restaurateurs to spur competitive advantage. Our findings

indicate that green entrepreneurial orientation is facilitative in improving *hyper-local* restaurateurs' knowledge and information to take decisive action-activity in promoting sustainable enactment. Conversely, no relationship is found between *hyper-local* restaurateurs'—sustainable strategies. Prior works' conclusions relate to green supply chain integration, barriers to sustainable food consumption and hotel corporate social responsibility performance (Han & Huo, 2020; Liu et al., 2021; Wong et al., 2021). Thus, more research is needed to unveil a fuller picture of *hyper-local* restaurants and sustainable strategies.

Third, we apply RBV (Barney, 2001) to probe the influence of identified CSFs on *hyper-local* Chinese industry, which offers a novel application domain for RBV and benefits our understanding of how receivers (e.g., *hyper-local* restaurateurs') may integrate systems benefits (e.g., *hyper-local* restaurants) in reaching sustainable performance. Prior work mainly emphasizes how entrepreneurial activity on natural resource rents signals to external and internal stakeholders regarding sustainable performance (Canh et al., 2021). However, the present study substantially contributes that identified CSFs act as resource cognition building to augment the performance of *hyper-local* restaurants. In doing so, we have extended the scholarship of RBV by highlighting the possible impacts of resource cognition-building setups that signals *hyper-local* restaurateurs' proactivity, commitment and skills. Therefore, our study has tinted and underpinned the meaning of the RBV transmission process in a *hyper-local* restaurants context and enunciated the need for future research to test the *hyper-local* restaurants' understanding and reconstruction processes like green entrepreneurial orientation nudging *hyper-local* restaurateurs' commitment and its significant spill over effects on *hyper-local* restaurants sustainable performance.

### Practical Implications

The present study also carries significant practical implications. Most importantly, our study directs to implant sustainable strategies through identified CSFs highlighting green entrepreneurial orientation helps advance *hyper-local* restaurants. In doing so, we maximize such benefits for *hyper-local* restaurateurs that seek to achieve a tremendous competitive advantage, promoting the Chinese *hyper-local* industry and informing them about the role of green entrepreneurial orientation in bringing sustainable change. This underlines the need for green entrepreneurial orientation and good responsiveness to the boundary conditions of the Chinese *hyper-local* industry and *hyper-local* restaurateurs to succeed in the targeted organizational competitive advantage. Hence, *hyper-local* industry and *hyper-local* restaurateurs should be aware that simply implanting green entrepreneurial orientation might not result in optimal *hyper-local* success unless green customer education, HCWPs and ability, motivation and capability are also evidence.

For instance, we recommend to the worldwide *hyper-local* industry that such CSFs could be applied in *hyper-local* restaurants with well-structured procedures and policies (De Chabert-Rios & Deale, 2018; Melkonyan et al., 2020). The effectiveness of these CSFs will be enhanced by providing resource-building setups (Barney et al., 2021), which further benefit *hyper-local* industries to exploit sustainable performance. A bundle of critical questions that the *hyper-local* industry could use for assessing the alignment between sustainable strategies and *hyper-local* outcomes includes: Are current *hyper-local* restaurants providing sustainable strategies to reach sustainable performance? This is the mark that we seek to examine in forthcoming research studies.

### Limitations and Future Research

Our study should be interpreted with some limitations. First, we propose (a) green customer education and (b) ability, motivation and capability, (c) HCWPs and (d) green entrepreneurial orientation based on RBV (Barney, 2001) to transmit sustainability signals to *hyper-local* restaurateurs. There could be other potential CSFs between identified to help build *hyper-local* restaurant status, such as internal environmental locus impacting *hyper-local* restaurants' image (Hwang et al., 2020). Hence, further research could consider alternative CSFs, operations tools and novel theories—for instance, *how hyper-local* restaurants evidence dynamic customer experience (Lee et al., 2021) and when *hyper-local* restaurants will act as eco-innovator to build sustainable *hyper-local* industry (Sharma et al., 2020).

Second, this study collected data from six *hyper-local* Chinese restaurants and attempted to provide preliminary evidence for our identified CSFs. We highly encourage future researchers to collect maximum *hyper-local* restaurant data to examine the generalizability of our findings. Third, we composed data from multiple divisions (i.e., dry fruit gardens and farmhouses, vegetable and fresh fruit gardens and farmhouses) to reduce the negative impact of common method bias (Podsakoff et al., 2003); however, we could not draw a causal relationship due to the lack of a longitudinal design using repeated measures. Hence, it would be helpful in future studies to repeat our judgments with more rigorous research intentions. In addition, we encourage future research to replicate such MCDM method tools and examine how other operations research MCDM methods tools like Fuzzy DEMATEL and FBWM with FTOPSIS techniques (Liou et al., 2021; Liu et al., 2021), could make a fuller representation of *hyper-local* sustainable restaurants.

### Conclusion

This study has revealed that green customer education, ability, motivation, capability, HCWPs and green entrepreneurial orientation significantly impact the sustainability of *hyper-local* restaurants. Besides, these identified CSFs' effect is only

significant when the *hyper-local* industry receives a positive resource-building process, enabling sustainable *hyper-local* services to thrive. Together, these findings help simplify the connotation between sustainable structures and outcomes and underline green entrepreneurial orientation's importance. We hope this study could assist as an impetus for future examination to elucidate the effect of identified CSFs on *hyper-local* restaurants by observing the sustainability ladder and broader boundary conditions incorporating *hyper-local* restaurateurs and restaurants.

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### References

- Alonso-Almeida, M., & Álvarez-Gil, M. J. (2018). Green entrepreneurship in tourism. In *The emerald handbook of entrepreneurship in tourism, travel and hospitality* (pp. 423–432). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-78743-529-220181009>
- Arthur, J. B. (1994). Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, 37(3), 670–687. <https://doi.org/10.5465/256705>
- Barney, J. B. (2001). Is the resource-based “View” a useful perspective for strategic management research? Yes. *Academy of Management Review*, 26(1), 41–56. <https://doi.org/10.5465/amr.2001.4011938>
- Barney, J. B., Ketchen, D. J., & Wright, M. (2021). Bold voices and new opportunities: An expanded research agenda for the resource-based view. *Journal of Management*, 47(7), 1677–1683. <https://doi.org/10.1177/01492063211014276>
- Berry, J. (1980). Introduction to methodology. In I. Allyn and Bacon (Eds.), *The handbook of cross-cultural psychology* (pp. 1–29). Allyn and Bacon.
- Canh, N. P., Nguyen, B., Thanh, S. D., & Kim, S. (2021). Entrepreneurship and natural resource rents: Evidence from excessive entrepreneurial activity. *Sustainable Production and Consumption*, 25, 15–26. <https://doi.org/10.1016/j.spc.2020.07.010>
- Cantele, S., & Cassia, F. (2020). Sustainability implementation in restaurants: A comprehensive model of drivers, barriers, and competitiveness-mediated effects on firm performance. *International Journal of Hospitality Management*, 87, 102510. <https://doi.org/10.1016/j.ijhm.2020.102510>
- Chan, J., Gao, Y. (Lisa), & McGinley, S. (2021). Updates in service standards in hotels: How COVID-19 changed operations. *International Journal of Contemporary Hospitality Management*, 33(5), 1668–1687. <https://doi.org/10.1108/IJCHM-09-2020-1013>
- Chen, M., Lyu, Y., Li, Y., Zhou, X., & Li, W. (2017). The impact of high-commitment hr practices on hotel employees' proactive customer service performance. *Cornell Hospitality Quarterly*, 58(1), 94–107. <https://doi.org/10.1177/1938965516649053>
- Choe, J. Y. (Jacey), & Kim, S. (Sam). (2018). Effects of tourists' local food consumption value on attitude, food destination image, and behavioral intention. *International Journal of Hospitality Management*, 71, 1–10. <https://doi.org/10.1016/j.ijhm.2017.11.007>
- De Chabert-Rios, J., & Deale, C. S. (2018). Taking the local food movement one step further: An exploratory case study of hyper-local restaurants. *Tourism and Hospitality Research*, 18(3), 388–399. <https://doi.org/10.1177/1467358416666137>
- Demirel, P., Li, Q. C., Rentocchini, F., & Tamvada, J. P. (2019). Born to be green: New insights into the economics and management of green entrepreneurship. *Small Business Economics*, 52(4), 759–771. <https://doi.org/10.1007/s11187-017-9933-z>
- Hajizadeh, F., Poshidehro, M., & Yousefi, E. (2020). Scenario-based capability evaluation of ecotourism development—An integrated approach based on WLC, and FUZZY—OWA methods. *Asia Pacific Journal of Tourism Research*, 25(6), 637–650. <https://doi.org/10.1080/10941665.2020.1752752>
- Han, Z., & Huo, B. (2020). The impact of green supply chain integration on sustainable performance. *Industrial Management & Data Systems*, 120(4), 657–674. <https://doi.org/10.1108/IMDS-07-2019-0373>
- Hsiao, T.-Y., Chuang, C.-M., & Huang, L. (2018). The contents, determinants, and strategic procedure for implementing suitable green activities in star hotels. *International Journal of Hospitality Management*, 69, 1–13. <https://doi.org/10.1016/j.ijhm.2017.10.005>
- Hwang, J., Choe, J. Y. (Jacey), & Kim, J. J. (2020). Strategy for enhancing the image of edible insect restaurants: Focus on internal environmental locus of control. *Journal of Hospitality and Tourism Management*, 45, 48–57. <https://doi.org/10.1016/j.jhtm.2020.07.015>
- Khan, M. R., & Sharma, K. (2020). Purchase preferences and buying influences on religious occasions. *FIIB Business Review*, 9(3), 216–227. <https://doi.org/10.1177/2319714520942624>
- Kim, J., Kim, J., Lee, S. K., & Tang, L. (Rebecca). (2020a). Effects of epidemic disease outbreaks on financial performance of restaurants: Event study method approach. *Journal of Hospitality and Tourism Management*, 43, 32–41. <https://doi.org/10.1016/j.jhtm.2020.01.015>
- Kim, K.-S. (2019). The influence of hotels high-commitment HRM on job engagement of employees: Mediating effects of workplace happiness and mental health. *Applied Research in Quality of Life*, 14(2), 507–525. <https://doi.org/10.1007/s11482-018-9626-z>
- Kim, Y., Rahman, I., & Bernard, S. (2020b). Comparing online reviews of hyper-local restaurants using deductive content analysis. *International Journal of Hospitality Management*, 86, 102445. <https://doi.org/10.1016/j.ijhm.2019.102445>
- Lee, C.-H., Li, Q., Lee, Y.-C., & Shih, C.-W. (2021). Service design for intelligent exhibition guidance service based on dynamic customer experience. *Industrial Management & Data Systems*, 121(6), 1237–1267. <https://doi.org/10.1108/IMDS-06-2020-0356>

- Li, X., Mai, Z., Yang, L., & Zhang, J. (2020). Human resource management practices, emotional exhaustion, and organizational commitment—With the example of the hotel industry. *Journal of China Tourism Research*, 16(3), 472–486. <https://doi.org/10.1080/19388160.2019.1664960>
- Liou, J. J. H., Chang, M.-H., Lo, H.-W., & Hsu, M.-H. (2021). Application of an MCDM model with data mining techniques for green supplier evaluation and selection. *Applied Soft Computing*, 109, 107534. <https://doi.org/10.1016/j.asoc.2021.107534>
- Liu, P., & Tse, E. C.-Y. (2018). Exploring factors on customers' restaurant choice: An analysis of restaurant attributes. *British Food Journal*, 120(10), 2289–2303. <https://doi.org/10.1108/BFJ-10-2017-0561>
- Liu, Y., Wood, L. C., Venkatesh, V. G., Zhang, A., & Farooque, M. (2021). Barriers to sustainable food consumption and production in China: A fuzzy DEMATEL analysis from a circular economy perspective. *Sustainable Production and Consumption*, 28, 1114–1129. <https://doi.org/10.1016/j.spc.2021.07.028>
- Luu, T. T. (2021). Green creative behavior in the tourism industry: The role of green entrepreneurial orientation and a dual-mediation mechanism. *Journal of Sustainable Tourism*, 29(8), 1290–1318. <https://doi.org/10.1080/09669582.2020.1834565>
- Mahdiraji, H., Hafeez, K., Abbasi Kamardi, A. A., & Garza-Reyes, J. A. (2021). Evaluating key capabilities for developing global collaborative networks using a multi-layer decision-making approach. *Industrial Management & Data Systems*, 121(10), 2207–2233. <https://doi.org/10.1108/IMDS-01-2021-0058>
- Melkonyan, A., Gruchmann, T., Lohmar, F., Kamath, V., & Spinler, S. (2020). Sustainability assessment of last-mile logistics and distribution strategies: The case of local food networks. *International Journal of Production Economics*, 228, 107746. <https://doi.org/10.1016/j.ijpe.2020.107746>
- Muneeb, F., Karbassi Yazdi, A., Wanke, P., Yiyin, C., & Chughtai, M. (2020). Critical success factors for sustainable entrepreneurship in Pakistani Telecommunications industry: A hybrid grey systems theory/best-worst method approach. *Management Decision*, 58(11), 2565–2591. <https://doi.org/10.1108/MD-08-2019-1133>
- Oliveira, P. M., Guerreiro, J., & Rita, P. (2022). Neuroscience research in consumer behavior: A review and future research agenda. *International Journal of Consumer Studies*, 46(5), 2041–2067. <https://doi.org/10.1111/ijcs.12800>
- Peng, Y., & Li, J. (2021). The effect of customer education on service innovation satisfaction: The mediating role of customer participation. *Journal of Hospitality and Tourism Management*, 47, 326–334. <https://doi.org/10.1016/j.jhtm.2020.12.014>
- Pettersen, N., & Durivage, A. (2008). *The structured interview: Enhancing staff selection*. Presses de l'Université du Québec.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Rana, S. (2021). How to manage with consumers' perceptions, fears, anger and future decisions. *FIIB Business Review*, 10(2), vi–viii. <https://doi.org/10.1177/23197145211025965>
- Rezaei, J. (2016). Best-worst multi-criteria decision-making method: Some properties and a linear model. *Omega*, 64, 126–130. <https://doi.org/10.1016/j.omega.2015.12.001>
- Rezaei, J., Wang, J., & Tavasszy, L. (2015). Linking supplier development to supplier segmentation using best worst method. *Expert Systems with Applications*, 42(23), 9152–9164. <https://doi.org/10.1016/j.eswa.2015.07.073>
- Rousta, A., & Jamshidi, D. (2020). Food tourism value: Investigating the factors that influence tourists to revisit. *Journal of Vacation Marketing*, 26(1), 73–95. <https://doi.org/10.1177/1356766719858649>
- Ruiz-Ortega, M. J., Parra-Requena, G., & García-Villaverde, P. M. (2021). From entrepreneurial orientation to sustainability orientation: The role of cognitive proximity in companies in tourist destinations. *Tourism Management*, 84, 104265. <https://doi.org/10.1016/j.tourman.2020.104265>
- Sari, H., Firmanzah, F., Harahap, A. A., & Siahaan, B. C. (2021). The role of customer education: A repeated cross-sectional study. *Journal of Science and Technology Policy Management*, 12(2), 193–214. <https://doi.org/10.1108/JSTPM-03-2020-0068>
- Schniederjans, D. G., & Khalajhedayati, M. (2021). Competitive sustainability and stakeholder engagement: Exploring awareness, motivation, and capability. *Business Strategy and the Environment*, 30(2), 808–824. <https://doi.org/10.1002/bse.2655>
- Sharma, T., Chen, J., & Liu, W. Y. (2020). Eco-innovation in hospitality research (1998–2018): A systematic review. *International Journal of Contemporary Hospitality Management*, 32(2), 913–933. <https://doi.org/10.1108/IJCHM-01-2019-0002>
- Tiwari, P., Tiwari, S. K., & Gupta, A. (2021). Examining the impact of customers' awareness, risk and trust in M-banking adoption. *FIIB Business Review*, 10(4), 413–423. <https://doi.org/10.1177/23197145211019924>
- Wong, A. K. F., Kim, S. (Sam), Lee, S., & Elliot, S. (2021). An application of Delphi method and analytic hierarchy process in understanding hotel corporate social responsibility performance scale. *Journal of Sustainable Tourism*, 29(7), 1153–1179. <https://doi.org/10.1080/09669582.2020.1773835>
- Yager, R. R. (1998). Including importances in OWA aggregations using fuzzy systems modeling. *IEEE Transactions on Fuzzy Systems*, 6(2), 286–294. <https://doi.org/10.1109/91.669028>
- Yasmin, M., Tatoglu, E., Kilic, H. S., Zaim, S., & Delen, D. (2020). Big data analytics capabilities and firm performance: An integrated MCDM approach. *Journal of Business Research*, 114, 1–15. <https://doi.org/10.1016/j.jbusres.2020.03.028>
- Yazdi, A., Muneeb, F. M., Wanke, P. F., Figueiredo, O., & Mushtaq, I. (2021). Critical success factors for competitive advantage in Iranian pharmaceutical companies: A comprehensive MCDM approach. *Mathematical Problems in Engineering*, 2021, 1–17. <https://doi.org/10.1155/2021/8846808>
- Zaoui, S., Hamou-ou-Brahim, S. A., Zhou, H., Omrane, A., & Huang, D. (2021). Consumer purchasing behaviour towards strategic innovation management practices in Morocco during COVID-19 health crisis. *FIIB Business Review*, 10(2), 158–171. <https://doi.org/10.1177/23197145211020714>
- Zhang, Y., Sun, J. (James), Shaffer, M. A., & Lin, C. (Veronica). (2021). High commitment work systems and employee well-being: The roles of workplace friendship and task interdependence. *Human Resource Management*. <https://doi.org/10.1002/hrm.22093>
- Zhong, L., Zhang, X., Rong, J., Chan, H. K., Xiao, J., & Kong, H. (2021). Construction and empirical research on acceptance model of service robots applied in hotel industry. *Industrial Management & Data Systems*, 121(6), 1325–1352. <https://doi.org/10.1108/IMDS-11-2019-0603>

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