How entrepreneurial bricolage drives sustained competitive advantage of tourism and hospitality SMEs: The mediating role of differentiation and risk management

Highlights

- Discusses the recombining available resources as a critical determinant of organizational resilience on risk management
- Proposes a theoretically-driven model showing how entrepreneurial bricolage enables T&H SMEs to achieve a SCA.
- Uncovers entrepreneurial bricolage and risk management functioned as dynamic capabilities to seize and leverage market opportunities.
- Extends the potential of the dynamic capabilities view as an underlying theory in tourism and hospitality literature.

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Abstract

When confronted with challenging conditions, becoming innovative by recombining available resources is considered a critical determinant of tourism and hospitality (T&H) SMEs’ resilience to risk and staying ahead of rivals. Grounded on the resource-based view theory and dynamic capabilities paradigm, this paper investigates how entrepreneurial bricolage drives the sustained competitive advantage of T&H SMEs despite resource constraints. Following the mixed-methods research design, empirical data from nine in-depth interviews and a survey with 246 T&H SMEs in Japan reveal that differences in strategic management initiatives in the form of risk management and differentiation advantage mediate the positive effects of entrepreneurial bricolage on achieving sustained competitive advantage. Consequently, this paper extends the potential of the dynamic capabilities view as an underlying theory in tourism and hospitality literature.

Keywords: entrepreneurial bricolage, sustained competitive advantage, differentiation advantage, risk management, tourism and hospitality SMEs, dynamic capabilities view

Introduction

The importance for small and medium-sized tourism and hospitality enterprises (T&H SMEs) of becoming innovative (Breier et al., 2021) and competitive by utilizing all available resources while effectively responding to unforeseen risks has been increasingly discussed in recent research (Sigala, 2020; Yeon et al., 2021). Compared to large-scale enterprises, SMEs in tourism and hospitality find it more challenging to survive in today’s intensely competitive business environment primarily due to resource constraints, such as lack of financial capital and a steady customer base (Dias et al., 2022; Toubes et al., 2021). As a strategy to cope with resource constraints, T&H SMEs are forced to introduce innovative but radical services (Dias et al., 2022; Tang et al., 2020). One way they can do this is by introducing these services through adopting innovative entrepreneurial activities and practices such as entrepreneurial bricolage (Servantie &
which stands for mobilizing whatever resources they can access within their surroundings (Baker et al., 2003).

The notion of entrepreneurial bricolage was initially explained by Lévi-Strauss (1967) without providing a clear-cut conceptualization (cf. Baker & Nelson, 2005). A review of prior literature examining entrepreneurial bricolage in different organizational settings characterized a universal theme: a firm’s ability to orchestrate combinations of extant and available resources to quickly respond to problems and opportunities (Baker & Nelson, 2005). In line with Steffens et al. (2009), in this paper, we conceive “entrepreneurial bricolage” as “the method or approach a firm takes to its resource development process” (p.5). Further, the term “resources” used in this paper implies internally and externally derived tangible and intangible organizational resources. While these internally derived firm resources entail human capital, financial capital, social capital, and physical assets (Barney, 2001), the externally derived resources include capital markets, venture capital firms, institutional support through the right alliances in the form of qualified professionals and technical consultant and expertise, technical know-how, high-technology human capital among others (Demirkan, 2018; Huggins, 2010).

The resource-based view (RBV) theory (Barney, 1991; Penrose, 1959; Wernerfelt, 1984) emphasizes that rare, inimitable, and non-substitutable resources enable business firms to gain a competitive advantage. A firm is said to have a competitive advantage “if it is able to create more economic value than the marginal (breakeven) competitor” (Peteraf & Barney, 2003, p.314), and firms are positioned to sustain such advantages when isolating mechanisms hinder rivals from acquiring key resources (Barney, 1991). Porter (1985) explained the two ways a firm can achieve a competitive advantage over its rivals: cost advantage and differentiation advantage. Cost advantage occurs when a firm provides the same products and services as its competitors, albeit at a lesser cost. Differentiation advantage is achieved when a firm offers better products and services than its competitors.

However, despite growing literature dedicated to advancing the RBV theory, critics (e.g., Gerhart & Feng, 2021; Kraaijenbrink et al., 2010) pointed to several apparent issues that warrant further theoretical and empirical attention. Mainly these issues referred to how resources can be used within business firms to achieve a competitive advantage in uncertain markets (Gerhart & Feng, 2021). Consequently, the dynamic capabilities view (DCV) has emerged to assist business firms in understanding how they need to adjust their business strategies to changing
environmental dynamics (Teece et al., 1997). This is vital in the contemporary business environment as a business firm's success depends not only on its resources but also on its ability to adapt to the market contingencies in which they operate. The DCV is not wholly a divergent viewpoint but rather a vital stream of the RBV theory that captures how a business firm can gain a competitive advantage in increasingly demanding environments (Wu, 2010). As Eisenhardt and Martin (2000) identified, dynamic capabilities are a set of specific and identifiable methods a business firm performs to effectively and efficiently utilize resources to implement strategies that lead to a competitive advantage. Subsequent research (e.g., Fu et al., 2021; Gölgeci et al., 2017) has identified entrepreneurial bricolage functioned as a dynamic capability that business firms could deploy under resource-constrained conditions to seize and leverage market opportunities. Despite entrepreneurial bricolage emerging as a dynamic capability to confront resource constraints circumstances (cf. Fu et al., 2021; Gölgeci et al., 2017), several gaps in the T&H literature require attention.

First, although the prior literature suggests that “...combining resources for new purposes sometimes serves as a mechanism driving the discovery of innovation in the form of new services from existing resources” (Baker & Nelson, 2005, p. 335), little if any understanding exists on how T&H SMEs can reconfigure available resources to achieve sustained competitive advantage (SCA) in intense markets (Yachin & Ioannides, 2020). This void indicates that many aspects of the entrepreneurial bricolage theory have not yet been thoroughly explored in T&H SMEs (Fu et al., 2020; Witell et al., 2017).

Second, understanding how the process through which mobilizing available resources enables a SCA for T&H SMEs remains unclear and can be termed a “black box” in T&H literature. Consequently, this research paper aims to address the primary research objective: How does entrepreneurial bricolage contribute to the SCA of T&H SMEs?

Third, although T&H SMEs are inherently risky (Williams & Baláž, 2015), many scholars have found that risk management is still in an early embryonic development phase and is quite rudimentary in T&H literature (e.g., Bhatti & Nawaz, 2020; Mandal & Dubey, 2020). Most prior literature on managing T&H SMEs in crises has focused on managing the crisis itself (Lai et al., 2020; Ritchie, 2004; Wut et al., 2021). Only scant scholarly attention is paid to the effects of having an effective risk management approach in enhancing SCA (cf. Wut et al., 2021). When we investigate in detail, we realize that the philosophy, processes, and activities
involved in risk management closely match and conform to the characteristics of dynamic capabilities (Nair et al., 2014). For instance, a dynamic capability involves sensing opportunities and environmental threats (Teece, 2007; Sutton, 2012). Similarly, risk management involves constantly scanning the business environment to identify unforeseen risks (Ritchie, 2004).

Against this backdrop, grounded on the RBV paradigm and DCV, we propose a theoretically driven model to investigate how entrepreneurial bricolage drives the SCA of T&H SMEs. We argue that entrepreneurial bricolage may enable T&H SMEs to achieve a SCA differently when confronted with resource constraints, primarily due to differences in managing firm resources. For example, on the one hand, entrepreneurial bricolage enables T&H SMEs to foster differentiation through innovation, creativity, and unique positioning, whereas on the other hand, entrepreneurial bricolage enables T&H SMEs to achieve a SCA by effectively managing risks. Moreover, prior literature indicates that entrepreneurial bricolage and its ability to effectively manage risks and offer innovative products/services within a business firm does not occur in isolation but is profoundly influenced by the industry in which it operates and the regulations governing the industry (Beckett, 2016). Consequently, we posit that the orchestration of these relationships is highly dependent on industry and regulatory pressure. Thus, our work aims to address the primary research question through the following sub-research questions.

1. Do risk management and differentiation advantages mediate entrepreneurial bricolage - SCA link within T&H SMEs?
2. Do industry pressure and regulatory pressure moderate the entrepreneurial bricolage-SCA link within T&H SMEs?

The outcomes of this paper contribute to the T&H management literature in several important ways. First, we propose our theoretically-driven model with relevant hypotheses and validate the model empirically by showing how entrepreneurial bricolage enables T&H SMEs to achieve a SCA. The findings suggest that when operating in resource constraint contexts, entrepreneurial bricolage and differences in strategic management initiatives in the form of risk management and differentiation advantage drive the SCA of T&H SMEs. Second, this paper adds to the T&H literature by examining the concepts of entrepreneurial bricolage and risk management through the lens of dynamic capability. Third, our paper extends most prior studies on risk management, which evaluated risk management as a dichotomy concept between the existence/non-existence of a risk management plan (e.g., Daud et al., 2011; Liebenberg & Hoyt, 2003) by
conceptualizing risk management as a multi-dimensional construct, thus giving a more comprehensive view of the risk management initiatives of T&H SMEs.

The remainder of the study unfolds as follows. The following section reviews the theoretical underpinning and hypotheses development, then determines the methodology adopted to conduct the study. The subsequent section discusses the key findings of the paper. Finally, the empirical findings are interpreted in dialogue with the relevant literature, and the theoretical contribution and practical implications are discussed.

Theoretical Background and Hypotheses Development

**Entrepreneurial bricolage and SCA**

T&H SMEs often confront resource constraints as the most severe challenge in achieving a SCA (Hwang & Lockwood, 2006; Peters & Buhalis, 2013; Son et al., 2021). In this regard, one of the most pertinent themes in the literature is “the theory of bricolage.” Levi-Strauss (1967) conceptualized the notion of entrepreneurial bricolage, defining it as creating something new by recombining and transforming existing resources. Baker and Nelson (2005) further refined and evolved the entrepreneurial bricolage construct. They defined it as focusing on “using resources at hand” rather than purchasing new resources. As explained further entrepreneurial bricolage refers to using extant and available resources for new organizational objectives, recombining and mobilizing available resources, and providing breakthrough solutions in firm creation. Moreover, Desa and Basu (2013) viewed entrepreneurial bricolage as a way of mobilizing resources in a firm. From the RBV theory perspective, Desa and Basu (2013) observed it as supplementary to resource optimization processes, especially regarding strategic resources. Consequently, in strategic management literature, numerous scholars (e.g., Baker et al., 2003; Davidsson et al., 2017; Golovina, 2018) in different research settings have acknowledged entrepreneurial bricolage as a source of innovation that enabled SMEs to compensate for resource constraints.

Prior empirical studies reveal that business firms, particularly SMEs that engage in entrepreneurial bricolage, pursue opportunities that other firms consider to be what they cannot pursue due to resource constraints. For instance, Garud and Karnoe (2003) emphasized that entrepreneurial bricolage enables business firms to view existing resources differently in terms of uses and combinations that were not previously thought to be applicable or relevant. Such
entrepreneurial bricolage initiatives create relative advantages over the firms that exhibit resource-seeking behaviors when facing the same resource constraints. Further, business firms that pursue the notion of entrepreneurial bricolage do not wait until they obtain the “right” resources. Instead, they amend the rules of what resources “should” and “could” are used for through a hands-on approach. It involves recombining and rebounding existing resources in ways they were not initially designed for and generating what can be regarded acts of “creative reinvention” (Fisher, 2012). Consequently, it allows managers to strategically manage the firm resources and focus on the activities that matter firm performance the most, relative to otherwise similar firms engaging in higher resource-seeking behaviors.

Prior research indicates resource acquisition is often challenging for T&H SMEs as they often lack the necessary finances and other resources such as skills and competencies to purchase and use additional resources (Dayour et al., 2020). In such kind of resource-constrained circumstances, Entrepreneurial bricolage may be helpful for T&H SMEs to achieve a SCA. If not, their alternative choice would be pursuing unlikely resource investments or doing nothing. Therefore, we hypothesize that:

**H1:** *Entrepreneurial bricolage positively affects SCA of T&H SMEs*

**Mediating effects of differentiation advantage and risk management**

To understand how bricolage enables T&H SMEs to achieve a SCA, we referred to the theory of competitive advantage introduced by Porter in 1985. In his seminal work, Porter suggested that there are two significant methods that a business firm can achieve a competitive advantage over its rivals: cost leadership strategy and differentiation strategy. Firms with a differentiation advantage emphasize leveraging strategic resources of a firm to enhance product/service quality, technology and innovativeness, brand image, firm reputation, and superior customer service, which must be difficult for rivals to imitate (Douglas et al., 2010; Le & Lei, 2018). Firms adopting a cost leadership strategy focus on leveraging strategic resources to minimize the cost structure in competing with other companies in the industry or segment they target (Kharub et al., 2019).

Entrepreneurial bricolage is closely linked to utilizing a firm’s existing resources in different combinations that may open up inexpensive avenues for a firm to explore new
opportunities. Prior literature reports that a business firm that follows entrepreneurial bricolage initiatives is expected to be able to recombine and transform firm resources to find and create new opportunities to target and extend resource uses (Newbert, 2008). The T&H industry is characterized by high uncertainty, and tourists prefer novel and unique service combinations and authentic experiences (Tajeddini et al., 2021). All these attributes highlight the vital role entrepreneurial bricolage plays in the industry. T&H SMEs that follow entrepreneurial bricolage can leverage novel combinations of existing resources to respond effectively to their customers via product/service differentiation, thus enabling them to achieve a SCA. For example, they can provide unique customer experiences through personalized services, hominess, and access to authentic local cultures and customs without acquiring new resources, which will eventually lead to a SCA in the long run (Kandampully et al., 2018; Tajeddini et al., 2021). Accordingly, the following hypothesis is developed:

**H2a**: Differentiation advantage mediates the entrepreneurial bricolage - SCA link within T&H SMEs

Today, although running a business and achieving a SCA requires responding quickly to extreme risks and uncertainties caused by rapid and sudden environmental changes (Czabanowska & Kuhlmann, 2021; Huang & Jahromi, 2021; Martin-Rios & Parga-Dans, 2016), risk management has not received the necessary attention in the strategic management (cf., Ritchie, 2004; Crovini et al., 2020; Ferreira et al., 2017) and T&H literature (cf. Ram & Hall, 2022; Williams & Baláž, 2015). Most academic research on risk management has primarily appeared in finance and accounting journals and is rare in management journals (Bromiley et al., 2015). Although T&H are risk-prone (Williams & Baláž, 2015), many scholars have found that risk management has not received adequate attention in T&H literature (e.g., Bhatti & Nawaz, 2020; Mandal & Dubey, 2020). In line with Dionne (2013), in this paper, we define risk management as an integrated approach used by T&H SMEs to apply risk mitigation strategies to prevent unexpected and unforeseen existing and residual risks caused by rapid and sudden changes, thereby contributing to the strengthening of resilience and mitigating of losses.

The limited studies on risk management in T&H literature highlight that implementing a risk management approach within T&H SMEs has not been formalized mainly due to the lack of awareness and resource constraints (Williams & Baláž, 2015). Further, prior literature notes that
a large share of entrepreneurial bricolage initiatives is inherently risky, as it talks about leveraging novel combinations of existing resources and capabilities to respond effectively to customer needs and wants via product/service differentiation (Seynard et al., 2014). Since entrepreneurial bricolage initiatives made by T&H SMEs significantly pose them at risk (Huang & Liu, 2019; Gamage & Tajeddini, 2022), effective risk management has become a must for them when exploiting entrepreneurial bricolage to enhance SCA. We, therefore, suggest that:

**H2b:** Risk management mediates the entrepreneurial bricolage - SCA link within T&H SMEs

**Moderating effects of regulatory and industry pressures**

Regulatory bodies in most industries require business firms to adhere to specific guidelines and regulatory frameworks when managing unforeseen risks, and the T&H industry is no exception (Azadegan et al., 2019). For instance, T&H firms worldwide are operating under the pressure of regulatory protocols and legislations related to human resource management (i.e., occupational health and safety, payment and wages including tips, decent work practices), environmental management (i.e., urban planning regulations, environmentally sustainable business practices), and many more. In the T&H industry, regulations act as coercive forces that compel firms to alter their behaviors to effectively manage risks caused by rapid and sudden environmental changes and gain legitimacy to enhance their SCA (Vogel, 2010; Zsidisin et al., 2005).

Arguably, the coercive impacts of regulatory pressures can supplement T&H SMEs by recombining their existing resources and capabilities to respond effectively to customer needs and wants (Short & Toffel, 2010). Regulatory pressures may include instructions that result in flexible or procedural strategies enabling entrepreneurial bricolage within T&H SMEs (Grewal & Dharwadkar, 2002). Pressure from regulatory authorities may also lead T&H SMEs to embark on entrepreneurial bricolage initiatives more seriously when managing risks in resource-constrained circumstances (Azadegan et al., 2019; Blome et al., 2014). Indeed, the positive influence of regulatory forces enables T&H SMEs to achieve a SCA Consequently, the following hypothesis is developed:

**H3:** Regulatory pressure moderates the entrepreneurial bricolage - SCA link within T&H SMEs, such that the link is stronger for high rather than low regulatory pressure
Industrial-specific factors and professional norms exert normative pressures on organizational behavior when managing risks (Azadegan et al., 2019). Unlike coercive forces, normative pressures are developed due to shared values, beliefs, mindsets, and professional experience. For example, changing environmental dynamics necessitate T&H SMEs to more accurately identify, analyze and use firm resources (Short & Toffel, 2010). It is becoming ever-more crucial for T&H SMEs to adopt new ways of working and deliver their customers a more personalized, seamless, and sustainable experience. Consequently, T&H SMEs might be influenced to utilize a firm’s existing resources and capabilities in different combinations that may open up inexpensive avenues to explore new opportunities, thus enabling them to achieve a SCA. Therefore, we argue that T&H SMEs under intense normative pressure will pursue higher entrepreneurial bricolage initiatives, allowing a SCA. Accordingly, it is hypothesized that:

**H₄:** Industry pressure moderates the entrepreneurial bricolage - SCA link within T&H SMEs, such that the link is stronger for high rather than low industry pressure

**Method**

Two stages were used to collect the data. First, we intended to obtain a deep understanding of the key concepts in practice by gaining deep insights from the T&H SMEs' managerial point of view, revealing the story behind the numbers (cf. Tajeddini & Mueller, 2012). Thus, we undertook some qualitative in-depth interviews relying on the subjective perception of a few executives of selected T&H SMEs. This stage was followed by developing confirmatory survey-based evidence to quantitatively evaluate the relationships among the key concepts by testing hypotheses.

**Qualitative study and results**

A qualitative method was undertaken as the first step to probe a deeper understanding of the true inner meanings of the concepts and their implementation in T&H SMEs in Japan. Japan was selected as the research setting of this paper due to several reasons. First, risk management is a deeply embedded notion in Japanese history (Yokoyama, 1991; Wu & Hayashi, 2013) and has been referred to as the lifeblood and inheritance of culture in Japan (Nguyen et al., 2017).
Second, despite some shortcomings and critics of Japanese T&H SMEs because of their ordinary capabilities (cf. Teece, 2021), Japan is an innovation-driven mature economy shifting towards the service sector, focusing on developing innovative, opportunity-seeking entrepreneurial activity with the optimal use of existing resources (Shibata, 2021), thus creating an ideal setting for this paper. Third, this is a timely study as T&H SMEs in Japan are currently facing a tough time trying to revive their competitive strategies and implement entrepreneurial initiatives to absorb economic shocks and ensure sustained competitiveness in the new normal (Fukai et al., 2021).

For the qualitative procedure, key informants from nine T&H SMEs in Japan were selected, and online and face-to-face in-depth interviews were carried out. This selection was consistent with Eisenhardt and Graebner's (2007) suggestion of using between 4 and 20 cases allowing the generalization while making it more manageable and generalizable, and more cases complicate the analysis. Further, since there are no precise guidelines for the sample size to be considered in qualitative research, we adopted the theoretical saturation strategy recommended by Eisenhardt (1989) in determining the sample size. The theoretical saturation was achieved with nine respondents, with no further insights being obtained. The selected key informants did not represent all T&H SMEs in Japan in any statistical sense. Yet, they were experts on the key concepts used in the study and expressed their willingness to discuss them. We used purposive and snowball sampling methods for choosing the key informants due to the availability of the key informants and their inclination to the study concepts (Graham et al., 2020). Once we identified the potential respondents, we contacted them to obtain their consent. Following their agreement to join in the interview process, the chosen informants received some initial information via email, including a description of the questions they would be asked. All the interviewers were top-level managers, ranging in age from 45 to 60, and each has over 11 years of experience managing T&H firms.

The interviews took place over five months in 2021 and lasted between 40 and 55 minutes (see Table 1). All the interviews were in Japanese, as the interviewees were uncomfortable sharing their views in English. We used an interviewing protocol to ensure that related issues were covered and discussed in every interview. Since some of the study concepts (i.e., entrepreneurial bricolage, risk management) may be too complex and abstract for
interviewees to understand, in the interview protocol, we broke down the main questions into sub-questions avoiding technical jargon as much as possible. The interview protocol was pilot tested with three academic specialists before the interviews to look for improper questions and determine its viability and suitability to use. Further, the key informants were asked to share their experiences and stories about the study topics during the interviews. With the respondents’ consent, all the responses were recorded and fully transcribed afterward. Immediately after each interview, we transcribed the original conversations and supplementary notes in Japanese. We later translated them into English for maximum comparability, assuring reliability of translations by having two bilingual researchers translating them independently and then comparing precision afterwards. We consequently entered the translations into NVivo software.

Following the six-step interview structural procedure suggested by Lucas (2005) and Braun and Clarke (2006), a thematic analysis strategy was undertaken. The responses were assessed as expressed by the respondents and determined by the two researchers. In doing so, we paid close attention to the pivotal quotes made by the respondents that constrained their practical experiences when determining the key concepts and emerging themes, which enabled us to identify themes and concepts with theoretical grounding meaningfully (Gamage et al., 2021). This approach allows for simplifying the comparison. During this process, we ensured the accuracy and reliability of the findings through multiple reviews and double-checks. In that way, we could agree on how to construct our conceptual framework and the corresponding hypotheses after multiple rounds of in-depth conversations designing several frameworks and graphic drafts in line with existing literature. During the qualitative analysis, the concept of SCA emerged aligned with Porter’s (1985) conceptualization of competitive strategy, emphasizing more on differentiation. Moreover, the inductive findings reveal the presence of breadths of risk management as suggested by Bahli and Rivard (2005) and Vink and Takeuchi (2013) in the T&H industry, as shown in Table 2.

Quantitative study and results
Data collection and sampling approach
To empirically examine the hypotheses shown in the proposed model in Figure 1, we conducted a paper-based survey targeting T&H SMEs situated in three main regions (Tokyo, Kyoto, and Osaka) in Japan. We initially designed an English-language version of the survey using valid and reliable measurement scales in previous strategic management, entrepreneurship, and risk management literature. Two independent professional translators used a back-translation procedure to ensure conceptual equivalence and reduce the invariability in the use of local Japanese language problems. The two versions were then compared, and the conflicts were discussed until an agreement was reached. After some modifications and corrections, the Japanese-language version of the questionnaire was finalized for data collection. Then we conducted four interviews with owners and top managers of T&H SMEs in Japan to ensure the content and face validity of the questionnaires. During the interviews, the informants were asked to verify the relevance of the questionnaire items. Grounded on comments, some items were modified to increase clarity. We then carried out a pilot study with seven top managers and owners of the Japanese T&H SMEs, requesting them to detect any equivocal, irrelevant, inappropriate, or ambiguous items and provide comments about the flow and wording used in the questionnaire. The pilot study results indicated that the final modified measurement scales were precise to the informants. Most had a sensibly diverse range of responses and assured the face and construct validity of the survey questionnaire.

Multiple T&H SMEs (e.g., hotels, restaurants) in Japan were sampled to test the proposed hypotheses. A random sampling plan was developed using three Japanese urban areas in Tokyo, Kyoto, and Osaka as sampling points. One thousand two hundred survey questionnaires were distributed to T&H SMEs obtained from a list of T&H SMEs located in Tokyo, Kyoto, and Osaka. A senior manager (e.g., CEO, vice president, owner) served as the key respondent in each firm. Our field interviews showed that these managers were aquatinted with their organizational strategic orientations, ties and networking, and competitive advantages. Following three waves of data collection with two reminders over six months in 2021, we obtained 314 questionnaires, out of which 68 were discarded due to missing values or illogical and unmatched answers. Thus, the final sample comprised 246 usable survey questionnaires, resulting in an effective response rate of 21.7%, not significantly impacting the anticipated confidence levels or estimation error.
We also performed a post-hoc test to analyze if there are any nuances between family and non-family-owned T&H SMEs for the measured variables in this study. The results showed no significant nuances in the responses among the two types of ownership. For example, the t-values for the major constructs in family and non-family settings were as follows: entrepreneurial bricolage (t-value = 0.47, p = 0.24), differentiation advantage (t-value = 1.22, p = 0.77), SCA (t-value = 1.06, p = 1.54), and risk management (t-value = 0.23, p = 0.35). As the t-values indicate, there were no substantial differences between the two ownership types. In evaluating the non-response error, t-value tests were performed on early and late respondents. Control variables were included to assess t-values and the overall results ranged between .33 and .69, revealing no substantial differences between early and late respondents (p>.05), hence the possibility of a non-response error being ineffective and weak.

**Measurement development**

**Entrepreneurial bricolage:** Despite the pervasiveness of the entrepreneurial bricolage concept in strategic management literature, one of the most challenging complications is understanding how to operationalize it and measure it using a reliable and valid measurement scale. We adopted eight items from previous entrepreneurship research (e.g., Baker & Nelson, 2005; Senyard et al., 2014), emphasizing behavioral entrepreneurship. The model fit assessment of the confirmatory factor analysis (CFA) results include: $\chi^2 (11) = 23.92$, $\chi^2/df = 2.17$, p-value=.01, GFI=.98, AGFI=.92, RMR=.16, TLI=.99, CFI=.99, Delta2=.99, RMSEA=.07, NFI=.99. The outcomes demonstrate that all factor loadings are statistically significant at the .001 significance level (Table 3).

**SCA:** In this paper, we measured SCA by adopting a four items scale derived from Barney (1991), Bharadwaj et al. (1993), Foss and Knudsen (2003), and Salunke et al. (2013). All the items were framed in a seven-point Likert scale, focusing on assessing the inability of rivals to imitate the advantages of a value-creating strategy (Salunke et al., 2013). The model fit results include: $\chi^2(1) = .52$, $\chi^2/df = .52$, p-value=.47, GFI=.99, AGFI=.99, RMR=.01, TLI=.99, CFI=.99, Delta2=.99, RMSEA=.01, NFI=.99 (Table 3).

**Regulatory and industry pressure:** regulatory pressure was evaluated using the four-item scale measurement recommended by Zsidisin et al. (2005) entailing how local organizations stipulate to develop crisis management plans. Industry pressure was evaluated using the three-
item scale measurement involving how industry standards deliver impactful development of crisis management plans (Azadegan et al., 2019). Regarding the CFA model fit analysis, the results include: \( \chi^2(24) = 53.89, \chi^2/df=2.25 \), p-value=.00, AGFI=.91, GFI=.95, Delta2=.97, TLI=.96, RMR=.10, CFI =.97, RMSEA=.07, NFI=.95. The results demonstrate that all factor loadings are statistically significant at the .001 significance level (Table 3).

Table 3 about here

Risk management was measured combining of four-formative constructs (risk reduction, risk readiness, risk response, and risk recovery) developed through delving past literature review (e.g., Bahli and Rivard, 2005; Vink and Takeuchi, 2013) along with the pilot study interviews. Each construct embodies an accumulation of individual values to arrive at mean values. The findings indicate that these four preconditions were not strongly correlated. The constructs’ Variance Inflation Factors (VIFs) using PLS-SEM indicate that the VIF for all items is below the recommended threshold value of 3.3 (cf. Petter et al., 2007) to eliminate a multicollinearity issue. Concerning the items’ significance, all items were retained as all corresponding outer loadings were greater than the threshold value of p <0.05 (Hair et al., 2017). Lastly, the weight of all items is greater than 0.10, above the recommended threshold value (Hair et al., 2019). Consequently, the findings suggest that the formative scales are valid as all items are satisfactory indicators of their respective constructs.

Table 4 about here

Controls
To justify for alternative explanations of the concepts and the potential effects of extraneous variables, we incorporated some control variables that were neither of direct concentration for the study objective nor our proposed assumptions evaluations. Previous research at the micro-level has acknowledged firm age, size, type, ownership, and technology deployment as vital determinants for aspirations in terms of firm performance (e.g., Azadegan et al., 2019, 2020; Gamage & Tajeddini, 2022; Sivakumar et al., 2011). Company age was measured by the logarithm of the number of years an organization had been operating. Company size was assessed utilizing the logarithm of the total number of organizational members, including various levels of managers and non-managerial employees. We also controlled firm type and coded service industry as 1 and 0 as otherwise. Firm ownership was coded as 1 when a firm’s prime business was based on family business and 0 otherwise. We controlled the benefits of deploying
new technology (e.g., IoT and cloud computing, outweigh cybersecurity concerns) on risk management in the current year for risk (1= major implementation; 0 = no implementation).

**Common method variance (CMV)**

Strategic management and organizational behavior scholars (e.g., Baumgartner & Steenkamp, 2001; Burton-Jones, 2009; MacKenzie & Podsakoff, 2012) argue that when data for each variable (dependent and independent) are adopted from a single individual respondent using a questionnaire, there is a probability of self-desirability error as a part of systematic error variance. As a result, it might contaminate by shared variance influencing the reliability and validity of the variables and enhances the likelihood of inflated estimates of variables’ relationships and misleads interpretations of the outcomes (Jakobsen & Jensen, 2015). To lessen and control any plausible common variance occurrence, we employed common method bias (cf., Burton-Jones, 2009; Kock et al., 2021; Williams et al., 2010), performing multiple preventive procedural steps and statistical remedies.

First, we included several attention check questions in the questionnaire, such as assuring the confidentiality of respondent’s information; and adopting the simplest, shortest, and most clear items in mixed and varied order (ex-ante) (cf. Reyes, 2020; Spector, 2006). Moreover, the measurement scales were purified and unrotated, and the outcomes of factor analysis yield with eigenvalues (a measure of explained variance) greater than 1.0, which accounted for 74.662 % of the total variance, well above the threshold of 50%, with Factor 1 revealing 17.224% of this variance which did not explain significant variance. The results indicate that CMV is unlikely.

Finally, we performed the Marker-Variable Technique incorporating some theoretically unrelated items among the items of the final designed questionnaire. To be analytically conservative, as a proxy of marker-variable (“MV marker”), a five-item social values scale was adopted from Berthon et al. (2005) and has been treated as a control variable in the regression analysis to lessen method bias issues (Lindell & Whitney, 2001; Grayson, 2007). We could not find any theoretical interconnection to any of the constructs embedded in the research. The items for the measurement scale of social values utilizing seven-point measurement scales entails (1) our employees have a good relationship with colleagues, (2) our employees have a good relationship with superiors, (3) our employees support and encourage each other, (4) our employees are working in a fun environment, and (5) our employees are working in a happy
environment. The social value measurement scale produces satisfactory reliability (Cronbach’s alpha=.91). Henceforward, we followed the statistical process proposed by Lindell and Whitney (2001) using a partial correlation technique (marker technique) and selected the second-lowest positive correlation ($r_m=.017$; see Table 1) between social values (marker variable) and cost advantage (substantive variables) to avoid capitalizing on chance. The mathematical equations created by Grayson (2007) were performed to investigate the adjusted correlations and their statistical significance:

$$r_{jm} = \frac{(r_{ij} - r_m)}{(1 - r_m)}$$

$$t_{a/2, N-3} = \frac{r_{ijm}}{\sqrt{(1 - r_{ijm}^2)(N-3)}}$$

where:
- $r_{ij}$= the pre-adjustment correlation between constructs i and j;
- $r_m$= the MV adjustment
- $r_{jm}$= the adjusted correlation; and
- $t_{a/2, N-3}$= the t-value of the adjusted correlation.

Table 5 about here

Table 5 shows the intercorrelations among the pre-and post-adjustment of the variables. These outcomes reveal that the “MV marker” does not affect the sign and significance level of any correlation coefficient, indicating that common method variance (CMV) is unlikely to be inflated. The results of Table 5 also show that no highest shared variance (HSV) is more significant than the relevant AVE; thereby, the evaluation recommends that discriminant validity is met (Fornell & Larcker, 1981).

Hypotheses testing

To evaluate the proposed hypotheses, instead of the structural equation modeling, we performed regression analysis with the maximum likelihood estimation because our data meet the required minimum criteria suggested in the literature (e.g., Wang & Ahmed, 2004). These criteria include reasonable sample size, continuous measurement scales for the observed variables, the validity of the hypothesized model, and multivariate normal distribution of the observed variables.
(Tajeddini & Trueman, 2014, p.1125). The normality test was performed by assessing the Kolmogorov–Smirnov statistic, and the aggregate scores for all substantive variables indicate that the scores were normally distributed. The findings also show the highest univariate skewness (1.321) and the highest univariate kurtosis (1.603) of each variable are well below the conservative criterion <2, meeting the minimum requirements. Since our research focuses on evaluating the overall impact of entrepreneurial bricolage rather than the effects of their dimensions, we treat all constructs as second-order factors with summated first-order indicators. Hence, we incorporate all control variables, including the method variance marker, in the model and link them directly to key variables. Figure 1 illustrates the hypothesized model as the base model. To examine the mediating role of differentiation advantage and risk management, we also link entrepreneurial bricolage directly to SCA. The outcomes of the hypothesis’s verification are illustrated in Table 2, combined with parameter estimates, their corresponding t-scores, and the fit statistics; and the results of the model fit the data adequately (GFI=.988, AGFI=.935, RMR=.020, CFI=.985, IFI=.987; RMSEA=.033) (Hu & Bentler, 1999).

**Mediation analysis**

Since the classic analytical approach to examine mediating effects suggested by Baron and Kenny (1986) is no longer state-of-the-art (Smith, 2012), this study performs the analyses using the SPSS PROCESS Macro recommended by Hayes (2017) as a more powerful method. H1 predicts that entrepreneurial bricolage will positively influence SCA of T&H SMEs while H2 predict that differentiation advantage and risk management will mediate the entrepreneurial bricolage-SCA link. To test H1, H2a, and H2b, Preacher and Hayes’ (2022, 2004) mediation assessment using Hayes Process Macro Model 5 – with multiple mediators and one moderator was performed. The results of the PROCESS analysis revealed that entrepreneurial bricolage positively affected SCA (β = .16, p < .05), supporting H1. Entrepreneurial bricolage positively influenced differentiation advantage (β = .35, p < .001), and risk management (β = .42, p < .001), respectively. Moreover, differentiation advantage (β = .11, p < .05), and risk management (β = .35, p < .05), positively influenced SCA of T&H SMEs as illustrated in Figure 2. Grounded on Preacher and Hayes’ (2004) recommended procedure, we assessed mediation analysis to observe the mediating role of differentiation advantage, and risk management on the entrepreneurial bricolage-SCA relationship. In terms of differentiation advantage, path A revealed that
entrepreneurial bricolage positively influenced differentiation advantage ($\beta = .35$, SE = .05, $t$-value $= 6.49$, $p < .001$). Path B showed that differentiation positively impacted SCA ($\beta = .29$, SE $= .09$, $t$-value $= 2.31$, $p < .01$). Paths C and C' indicated that interaction partially mediated the entrepreneurial bricolage-SCA link ($\Delta \beta = .15$, $p < .001$, LLCI $= .16$, ULCI $= .26$). Therefore, H$_{2a}$ was supported. Concerning risk management, path A revealed that entrepreneurial bricolage positively influenced risk management ($\beta = .41$, SE $= .06$, $t$-value $= 5.32$, $p < .001$). Path B demonstrated that risk management positively influenced SCA ($\beta = .19$, SE $= .05$, $t$-value $= 3.28$, $p <.001$). Paths C and C' exhibited that risk management partially mediated the entrepreneurial bricolage-SCA link ($\Delta \beta = .17$, $p < .001$, LLCI $= .05$, ULCI $= .24$). Accordingly, H$_{2b}$ was supported.

**Figure 2 about here**

**Moderated analysis**

H$_3$ predicts that regulatory pressure will moderate the relationship between entrepreneurial bricolage and SCA. The assessment of the PROCESS statistical analysis revealed that the interaction between entrepreneurial bricolage and regulatory pressure ($\beta = .11$, SE $= .06$, $t$-value $= 3.38$, $p < .05$, $\Delta R^2 = .06$, $F$-value $= 5.82$, LLCI $= .15$, ULCI $= .38$) positively influenced SCA. Grounded on the ‘pick-a-point’ method (Hayes, 2022), one standard deviation below and above the mean of regulatory pressure was performed to denote the low and high levels of regulatory pressure respectively (Cohen & Cohen, 1983). The results of the slope test exhibited that the influence of entrepreneurial bricolage on SCA was found to be stronger in regulatory with high ($\beta = .32$, $t$-value $= 3.94$, $p < .01$) than low ($\beta = .13$, $t$-value $= 2.01$, $p < .05$) pressure. The interaction plot is demonstrated in Figure 3. As a result, H$_3$ was supported. H$_4$ predicts that industry pressure will moderate the relationship between entrepreneurial bricolage and SCA.

The assessment of the PROCESS statistical analysis revealed that the interaction between entrepreneurial bricolage and industry pressure ($\beta = -.03$, SE $= .10$, $t$-value $= -.37$, $p = .71$, $\Delta R^2 = .04$, $F$-value $= .22$, LLCI $= -.23$, ULCI $= .16$) negatively influenced SCA. Therefore, H$_4$ was not supported. Table 6 shows the outcomes of evaluation for the hypothesized research moderated mediation model.

**Figure 3 about here**

**Table 6 about here**
Discussion

This paper investigates how entrepreneurial bricolage drives SCA of T&H SMEs through differentiation advantage and risk management. Using empirical data from 246 survey questionnaires distributed to T&H SMEs in Japan, our quantitative research results reveal that entrepreneurial bricolage positively influences the risk management initiatives in T&H SMEs. On the contrary, most previous scholars believed that the notion of entrepreneurial bricolage is inherently risky as it discusses how a firm could become innovative and competitive by utilizing all available resources in a resource-constrained environment (cf. Seynard et al., 2009). However, in somewhat of a departure, Mohammadi (2021) argues that although entrepreneurial bricolage may generate risks in certain situations, it also influences the development of a firm’s resistance to risk. Our findings led credence to this argument. Our quantitative results are further supplemented by insights derived from the qualitative interviews. The qualitative interviews indicate that “if there is an SME unwilling to manage risks, its prospect for business growth is in wanes.” The findings also align with Gamage et al. (2021), who emphasized that risk-taking is integral to entrepreneurial-oriented T&H firms operating in the competitive business environment.

The findings indicate that entrepreneurial bricolage creates a differentiation advantage in T&H SMEs. However, the review of bricolage literature reveals that although entrepreneurial bricolage has been considered a critical factor in increasing organizations' competitiveness (Pati et al., 2021), the mechanism in which entrepreneurial bricolage creates increased organizational competitiveness is largely omitted (Steffens et al., 2022). Our qualitative findings fill this void in the existing literature by highlighting that entrepreneurial bricolage can be considered a dynamic capability that allows T&H SMEs to increase organizational competitiveness by recombining existing resources when encountered with resource limitations imposed by the modern, viable business environment. This finding is consistent with Teece’s (2021) perspective of whether or not a competitive advantage is sustained and is contingent on the firm's resource portfolio. Consequently, this result contributes to this paper by extending the RBV theory and DCV into the bricolage literature.

The findings of this paper imply that entrepreneurial bricolage, differentiation advantage, and risk management drive the SCA of T&H SMEs. By revealing that, this paper contributes to
the competitive strategy theory (cf. Porter, 1985) by assessing the mediating effect of differentiation advantage and risk management on the relationship between entrepreneurial bricolage and SCA of T&H SMEs. As the quantitative data analysis reveals, although entrepreneurial bricolage had a direct effect on the SCA of T&H SMEs, the impact of entrepreneurial bricolage on SCA could also be experienced through the mediating role of differentiation advantage and risk management. By doing so, our findings respond to Steffens et al.’s (2022) call for future research investigating how entrepreneurial bricolage and the SCA of business firms. As Steffens et al. (2022) and Pati et al. (2021) noted, entrepreneurial bricolage does not only directly influence the SCA of firms. Instead, some mediated or moderated variables exist.

Overall, our findings are in line with Kiyabo and Isaga (2020) and Mohammadi (2021), who emphasized that more than the tangible resource of a service firm, its intangible resources and firm capabilities contribute to its competitiveness and allow it to stay ahead of the competition.

**Conclusion and recommendations**

Using empirical data collected from nine in-depth interviews and 246 survey questionnaires from T&H SMEs in Japan, the findings of this paper reveal when operating in resource constraint contexts, entrepreneurial bricolage and differences in strategic management initiatives in the form of risk management and differentiation advantage drive the SCA of T&H SMEs. The results further recognize the vital role of entrepreneurial bricolage and risk management as dynamic capabilities that could increase the competitiveness of T&H SMEs. The findings of this study make several substantial contributions to theory and practice, as follows.

**Theoretical contributions**

Our work contributes to T&H management literature by laying essential foundation blocks for the potential applicability of the RBV theory and DCV in those domains. As the RBV theory posits, a company’s competitive advantage derives from the organizational- idiosyncratic resources that are often costly for duplicating by competitors, valuable, rareness, imperfectly imitable (tough to imitate), and non-substitutable (cf. Barney, 1991). Additionally, Teece et al. (1997) underlined that a business firm's ability to adjust to the market conditions in which it operates is just as crucial as its resources for success. Teece (2021) further argues that Japanese
firms should apply dynamic capabilities to enhance their competencies in handling crises, which help turn problems into opportunities.

Following the same thinking, this paper proposes risk management as a dynamic capability that allows T&H SMEs to gain a competitive advantage. This is because an effective risk management system is not something a firm can purchase from the market. It should be implemented considering the unique features of each organization as such firms could achieve competitive advantage via the implementation and use of risk management as a dynamic capability (Saeidi et al., 2018). Consequently, the results add to the RBV theory and DCV by proposing risk management as a dynamic capability that leads to SCA.

As the RBV theory and DCV suggest, the main reason for some firms to outperform others and become successful can be found inside the firms; that is, firms with efficient and effective utilization of firm resources and superior capabilities will build up a basis for gaining sustainable competitive advantage (Alexy et al., 2018; Fahy, 2000; Newbert, 2008). In line with Barney (1991) and Teece et al. (1997, 2021), the inclusion of entrepreneurial bricolage in the proposed model contributes to the RBV theory and DCV by theorizing and gauging entrepreneurial bricolage as a dynamic capability to parsimoniously combine firm strategic resources that support the SCA in T&H SMEs. As the findings suggest, when T&H SMEs operate in resource constraint contexts, entrepreneurial bricolage and differences in strategic management initiatives in the form of risk management and differentiation advantage drive the SCA of T&H SMEs. Consequently, this paper extends the potential of the RBV theory and DCV as underlying theories in the entrepreneurship and T&H management literature.

Third, most prior studies on entrepreneurial initiatives of T&H have examined the causal relationship between the entrepreneurial orientation of T&H SMEs in enhancing business performance in normal circumstances (e.g., Fu et al., 2019; Kallmuenzer et al., 2019). The entrepreneurial initiatives in resource-constrained business environments have received little scholarly attention in T&H literature (Fu et al., 2021). Nevertheless, today, most T&H firms operate in a resource-constrained environment, mainly due to the challenges created by the global pandemic and growing environmental sustainability concerns (Kukanja et al., 2020). This paper addresses this void in prior literature by providing novel insights into how entrepreneurial bricolage allows T&H SMEs to achieve SCA in resource-constrained circumstances.
Fourth, this paper conceptualizes risk management as a multi-dimensional construct comprising four dimensions despite prior studies that measured risk management as a dummy variable or its implementation using a simple question (Daud et al., 2011; Liebenberg & Hoyt, 2003). Moreover, by considering intangible firm resources such as entrepreneurial bricolage, this paper extends prior research on risk management, primarily focused solely on the direct and bivariate bond between risk management and organizational performance outcomes. Consequently, our paper provides an increased understanding and insights into the mediating impact of risk management on the relationships between entrepreneurial bricolage and SCA by considering all its dimensions.

Practical Implications

The findings of this research paper offer several significant implications for T&H SME owners and managers. As the results indicate, in a competitive business environment, the differences in performance among T&H SMEs are more driven by intangible resources (e.g., brand name) and firm capabilities (e.g., accumulated service skills in a restaurant) than physical assets since intangible resources and firm capabilities are not vulnerable to imitation easily. Therefore, T&H SME owners and managers should invest more in intangible resources and firm capabilities than physical assets to create an SCA and enhance business performance.

T&H SMEs moreover appear to be active in managing their firm resources and capabilities well, to control, manage, and overcome challenges and risks, and thus become and remain competitive in the long run (which also meets their often family business nature that targets to survive across generations, see, e.g., Kallmuenzer et al., 2022). As such, T&H SME firm owners, managers, and executives should be motivated to develop and implement effective risk management systems parallel to initiating entrepreneurial bricolage, resulting in SCA in the long run.

Practically, the findings of this paper are also relevant concerning the recent crises that have had a substantial adverse impact on the operations of many T&H SMEs (i.e., hotels, guest houses, and cafes), with some having to fold up due to loss of market (Huang & Jahromi, 2021; Ratten, 2021). As the findings reveal, a strategic combination of entrepreneurial bricolage with risk management and differentiation advantage is an effective strategy to survive the business
turmoil and gain SCA over time. This is even more crucial for T&H SMEs, which are usually resource-constrained.

Limitations and suggestions for further research

As with any empirical research study, this paper has shortcomings that open up possibilities for future studies. First, the generalizability of this study is subjected to limitations associated with the non-probability sampling techniques used. Although we have considered a sample of 246 T&H SMEs in this study, their organizational structure, business procedures, and practices may not reflect all T&H SMEs in Japan. Second, as the present study was conducted in Japan with unique business culture and stable economic growth, there is a possibility that the result may be different in other countries. Third, the cross-sectional survey design used in this paper restraints the inferences drawn about causality and interconnections among the concepts of interest. Moreover, without longitudinal data, we could not wholly capture how T&H SMEs recombine existing resources to generate new value and achieve SCA while managing business risk over time. Consequently, these limitations can provide exciting directions for future researchers. Hence, more studies are required to investigate how entrepreneurial bricolage drives the SCA of T&H SMEs through differentiation advantage and risk management in different research settings, particularly in developing countries. Further, future research could collect data about entrepreneurial bricolage at time 1, differentiation advantage and risk management at time 2, and finally, SCA at time 3. Such a cross-lagged panel analysis would allow a more precise understanding of relationships between constructs.

References


Figure 1: Hypothesized model
<table>
<thead>
<tr>
<th>Key informant</th>
<th>Job description</th>
<th>Age</th>
<th>Background and experience with the service sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Senior manager - Operations</td>
<td>57</td>
<td>Owns a postgraduate qualification in service management and has more than 10 years of experience in managing T&amp;H SMEs</td>
</tr>
<tr>
<td>B</td>
<td>Chief executive officer</td>
<td>53</td>
<td>Holds a professional postgraduate diploma in management and has more than 12 years of experience in T&amp;H strategy development</td>
</tr>
<tr>
<td>C</td>
<td>Managing director</td>
<td>45</td>
<td>Holds an MSc. in T&amp;H SMEs management and has more than 11 years of experience in the service sector</td>
</tr>
<tr>
<td>D</td>
<td>Managing director</td>
<td>48</td>
<td>Holds an MBA and has more than 12 years of experience in strategic T&amp;H SMEs</td>
</tr>
<tr>
<td>E</td>
<td>Chief operating officer</td>
<td>60</td>
<td>Owns a postgraduate qualification in T&amp;H SMEs and has more than 18 years of experience in managing T&amp;H SMEs</td>
</tr>
<tr>
<td>F</td>
<td>Manager - Operations</td>
<td>49</td>
<td>Holds an MBA and has more than 10 years of experience in managing T&amp;H SMEs, mainly in the tourism and hospitality industry</td>
</tr>
<tr>
<td>G</td>
<td>Managing director</td>
<td>51</td>
<td>Owns a postgraduate qualification in T&amp;H SMEs and has more than 10 years of experience in strategic T&amp;H SMEs</td>
</tr>
<tr>
<td>H</td>
<td>Chief executive officer</td>
<td>53</td>
<td>Holds an MBA and has more than 10 years of experience in T&amp;H SMEs strategy development</td>
</tr>
<tr>
<td>I</td>
<td>Manager - Operations</td>
<td>56</td>
<td>Has more than 15 years of experience in T&amp;H SMEs management and strategy development</td>
</tr>
</tbody>
</table>

Table 1: Overview of the key informants
We observe any unexpected events as an opportunity. We know how to take the required steps to deter businesses from major disruptions (informant B)

We are aware that we need to deal with risks. For example, we always witness (are exposed to) alterations in technology and regulation and/or supply-demand shock. I believe that this is the nature of our business to be immediacy, and this demands constant changes and surprises. So, we are equipped with some strategies that allow us to reduce the risk potential (informant I)

In our company, we always try to identify potential risk types we may have to face in the future and attempt to take countermeasures to decrease the impact of consequences (informant E)

...due to the nature of the business where I am the owner of a sole proprietorship, and it (requires) drives me to be prepared to take on the risk, the uncertainty (informant A)

Our firm is always ready to deal with unexpected changes in the business environment (informant I)

Our company being conservative, there is a lot of red tape and bureaucracy that prevent us from getting ready to deal with change (informant F)

In our business, we have a risk assessment procedure addressing “what-if scenarios.” Accordingly, we always try to avoid the risks which we believe may pose a threat to our business (informant G)

I firmly believe that all companies have to take risks in pursuing their strategic aspirations. As such, it is important to acknowledge risks, and risk-taking becomes intelligent. It is important to utilize a balanced approach to tolerate and respond to risks based on identified and validly assessed risks and opportunities (informant C)
- We have a formal procedure for risk management and have already implemented a risk recovery plan. The procedure of the plan includes identification, assessment, monitoring, and managing (treating) any potential issues arising from unexpected risks (informant E).
- We are always thinking about how to be resilient and continue our business even in unexpected events (informant H).

<table>
<thead>
<tr>
<th>Example Quotes</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The mindset of our managers is contingent on building trust in the employees by transferring more responsibilities with available resources (informant A).</td>
<td></td>
</tr>
<tr>
<td>• In our organization, we use a matrix structure to facilitate communication to share knowledge and experience between employees and functions. This is a way of sparking new ideas resonating with exploitation and using the available resources (informant C).</td>
<td></td>
</tr>
<tr>
<td>• We provide various incentives to employees, and transcending pay increases are usually used to attract the best available resources to work in our organization (informant H).</td>
<td></td>
</tr>
<tr>
<td>• We firmly believe in our coordinated effort; we try to understand the environment, stakeholders, and available resources and technology and know-how to allocate our available resources in response to any unexpected changes in the target market or emerging crisis (informant B).</td>
<td></td>
</tr>
<tr>
<td>• Our organization is learning-oriented and allows us to share experience and identify untapped resources that we can use in a proper, efficient, and effective way - (informant G).</td>
<td></td>
</tr>
<tr>
<td>• We always attempt to identify the unimportant, invaluable, and/or extra untapped and pending available resources to generate strategic resources for the firm to create a competitive advantage (informant D).</td>
<td></td>
</tr>
<tr>
<td>• Our strategic activities are based on combining and coordinating available resources to increase our competence and productivity (informant I).</td>
<td></td>
</tr>
<tr>
<td>• I always believe that if we do not use our variable resources, it will negate the benefits of strategic resources (informant A).</td>
<td></td>
</tr>
<tr>
<td>• We are a small business and coordinate and utilize available resources to satisfy the aspirations affected by environmental contingencies (informant E).</td>
<td></td>
</tr>
<tr>
<td>• We use a kind of tied control (behavioral control) reflecting available resources and opportunities (informant F).</td>
<td></td>
</tr>
<tr>
<td>• It is very common (routine) for us to use our available resources (informant A).</td>
<td></td>
</tr>
<tr>
<td>• For any issues that we face, the first thing we think is to see if we can resolve issues with</td>
<td></td>
</tr>
</tbody>
</table>

| We pursue differentiation deriving from customer, competitor, or innovation-oriented behaviors (informant A). | Differentiation Advantage |
| Although we have done a good job in the market by minimizing our cost structures, we have not sacrificed our differentiation by offering high quality and unique services to our customers (informant D). |  |
| Because of our resources and flexibility, we have achieved positional advantages through cost leadership and differentiation in our competitive market. I believe that this key reason for our success is that we create value for customers for a long time by offering high-quality service at a reasonable price (informant F). |  |

| Our values [culture] are effective vehicles of creating sustained competitive advantage (informant B). | Sustained Competitive Advantage |
| New service [development] enhances our customer service experience and creates sustained competitive advantage (informant F). |  |
| Our business alliance collaboration, along with having a sound control system, enables us to create a sustained competitive advantage (informant G). |  |
| Our innovation service capability and managers' vast experiences and pragmatic approach are the founding stones of our sustained competitive advantage (informant C). |  |

Table 2: Overview of the themes and categories identified with corresponding in-vivo codes and example quotes.
our available resources (*informant E*)

- We always try to optimize our resource utilization. It is a part of our policy that we prioritize our organizational goals to deliver using organizational available resource capacity (*informant D*)
- Our firm tries to get the job done by utilizing our existing resources. That is why we have vast experience to provide the right resources in advance for our organizational goals (*informant G*)
- We always use prospective costs and purchase the materials we might need for achieving our strategic goals. If something happens that we did not expect, we stretch and leverage our available or scarce resources to fix it effectively (*informant C*)
- It often happened when we had faced new challenges (problems); we could not afford to purchase new instruments and had to mobilize our workforce and integrate all existing resources for operational execution (*informant E*)

Table 2: Overview of the themes and categories identified with corresponding in-vivo codes and example quotes (cont’d)
<table>
<thead>
<tr>
<th>Constructs</th>
<th>Indicator (parameter)</th>
<th>Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constructed Indicator (parameter)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constructs</td>
<td>Indicator (parameter)</td>
<td>Loadings</td>
</tr>
<tr>
<td>Entrepreneurial bricolage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>α=914</td>
<td>CR=.81</td>
<td>AVE=.62</td>
</tr>
<tr>
<td>BRC1</td>
<td>We are confident of our ability to find workable solutions to new challenges by using our existing resources</td>
<td>.68*</td>
</tr>
<tr>
<td>BRC2</td>
<td>We gladly take on a broader range of challenges than others with our resources would be able to</td>
<td>.69</td>
</tr>
<tr>
<td>BRC3</td>
<td>We use any existing resource that seems useful to respond to a new problem or opportunity</td>
<td>.77</td>
</tr>
<tr>
<td>BRC4</td>
<td>We deal with new challenges by applying a combination of our existing resources and other resources inexpensively available to us</td>
<td>.78</td>
</tr>
<tr>
<td>BRC5</td>
<td>When dealing with new problems or opportunities we take action by assuming that we will find a workable solution</td>
<td>.64</td>
</tr>
<tr>
<td>BRC6</td>
<td>By combining our existing resources, we take on a surprising variety of new challenges</td>
<td>.60</td>
</tr>
<tr>
<td>BRC7</td>
<td>When we face new challenges, we put together workable solutions from our existing resources</td>
<td>.61</td>
</tr>
<tr>
<td>BRC8</td>
<td>We combine resources to accomplish new challenges that the resources were not originally intended to accomplish</td>
<td>.93</td>
</tr>
<tr>
<td>Differentiation advantage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>α=816</td>
<td>CR=.85</td>
<td>AVE=.65</td>
</tr>
<tr>
<td>Differ1</td>
<td>Compared to competing products, our products offer superior benefits to customers.</td>
<td>.87*</td>
</tr>
<tr>
<td>Differ2</td>
<td>Our services are unique and nobody but our company can offer them.</td>
<td>.86</td>
</tr>
<tr>
<td>Differ3</td>
<td>We take great efforts in building a strong brand name—nobody can easily copy that.</td>
<td>.73</td>
</tr>
<tr>
<td>Differ4</td>
<td>We successfully differentiate ourselves from others through effective advertising and promotion campaigns.</td>
<td>.67</td>
</tr>
<tr>
<td>Sustained competitive advantage, α=871, CR=.91 AVE=.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCA1</td>
<td>The innovations we introduced enabled us to enjoy a superior market position for a reasonable period</td>
<td>.54*</td>
</tr>
<tr>
<td>SCA2</td>
<td>The new changes we introduced have been appreciated by our clients/customers giving us a distinct advantage for some time now</td>
<td>.67</td>
</tr>
<tr>
<td>SCA3</td>
<td>Our competitors could not easily match the advantages of the new products or services that we introduced</td>
<td>.90</td>
</tr>
<tr>
<td>SCA4</td>
<td>The new products or services we introduced were a stepping stone for further development</td>
<td>.81</td>
</tr>
<tr>
<td>Industry Pressure</td>
<td></td>
<td></td>
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<tr>
<td>α=816</td>
<td>CR=.85</td>
<td>AVE=.65</td>
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<tr>
<td>IP1</td>
<td>Industry standards influence our implementation of a Crisis Management Plan</td>
<td>.87*</td>
</tr>
<tr>
<td>IP2</td>
<td>Generally agreed upon practices of our trade associations influence our implementation of a Business Continuity Plan</td>
<td>.86</td>
</tr>
<tr>
<td>Regulatory pressure</td>
<td></td>
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<tr>
<td>α=824</td>
<td>CR=.77</td>
<td>AVE=.64</td>
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<tr>
<td>RP1</td>
<td>Our local regulations influence our implementation and update of a Business Continuity Plan</td>
<td>.54*</td>
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<tr>
<td>RP2</td>
<td>Our local regulations influence our implementation and update of a Crisis Management Plan</td>
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<tr>
<td>RP3</td>
<td>Our country level regulations influence our implementation and update of a Business Continuity Plan</td>
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<tr>
<td>RP4</td>
<td>Our country level regulations influence our implementation of a Crisis Management Plan</td>
<td>.81</td>
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</table>

1Model summary statistics: χ²(11) = 23.92, χ²/df=2.17, p-value=.01, GFI=.98, AGFI=.92, RMR=.05, TLI= .98, CFI= .99, RMSEA=.04, NFI=.98.

2Loading fixed to 1 for identification purposes.

Table 3: Unidimensionality and convergent validity tests (n=246)
Table 4. Measurement Model (Formative Indicators): Risk Management

<table>
<thead>
<tr>
<th>Item(s)</th>
<th>VIF</th>
<th>Weights</th>
<th>t-value</th>
<th>Items deleted</th>
</tr>
</thead>
</table>
| **Reduction**  
Redu1. Our business can identify long-term risks to human life from a major disruption. | 1.32 | .23 | 1.18* | No |
| Redu2. Our business can analyze long-term risks to human life from a major disruption. | 2.54 | .21 | 1.73* | |
| Redu3. Our business has alternatives to reduce the effects of a major disruption when it occurs. | 2.07 | .22 | 2.54** | |
| Redu4. Our business staff understands the potential hazards that may cause major disruptions to our business. | 2.64 | .32 | 1.84* | |
| **Readiness**  
Read1. Our business has developed its operational systems to cope with major disruptions. | 3.01 | .27 | 1.41* | No |
| Read2. Our business has proper capabilities to immediately respond to major disruptions. | 2.24 | .24 | 1.41* | |
| Read3. Our business has a “To-do” list and plan when major disruptions happen. | 2.22 | .33 | 1.59* | |
| Read4. Our business can rely on a robust communication network when major disruptions happen. | 1.16 | .21 | 1.84* | |
| **Response**  
Resp1. In business, actions are taken immediately before major disruptions happen to save lives and property. | 1.21 | .32 | 2.37** | No |
| Resp2. In our business, actions are taken immediately during major disruptions to save lives and property. | 1.12 | .31 | 2.71** | |
| Resp3. In our business, actions are taken immediately after major disruptions to save lives and property. | 1.32 | .33 | 1.21* | |
| **Risk Recovery**  
Reco1. Our business is well connected to organizations responsible for recovery after a major disruption. | 1.44 | .34 | 4.23*** | |
| Reco2. Our business keeps organizations responsible for recovery informed after a major disruption. | 1.67 | .42 | 3.11*** | No |
| Reco3. Organizations responsible for recovery inform our business after a major disruption. | 1.56 | .29 | 4.45*** | |
| Reco4. Our business and other organizations responsible for recovery help each other to recover from a major disruption. | 1.14 | .33 | 4.10*** | |

Note: *p < 0.10, ** p < 0.05, *** p < 0.01.
<table>
<thead>
<tr>
<th></th>
<th>BRIC</th>
<th>RM</th>
<th>SCA</th>
<th>DA</th>
<th>RP</th>
<th>IP</th>
<th>Type</th>
<th>AGE</th>
<th>SIZE</th>
<th>OWN</th>
<th>TECH</th>
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<td>.26</td>
<td>.511</td>
<td>.135</td>
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<td>-.03</td>
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<td>.307</td>
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<td>Industry Pressure (IP)</td>
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<td>---</td>
</tr>
</tbody>
</table>

Note 1: Zero-order correlations appear below the diagonal (before the MV adjustment), whereas correlations adjusted for potential common method bias appear above the diagonal (after the MV adjustment) (*p<.05, two tailed test).
Note 2: *p<0.05 (2-tailed), **p<0.01 (2-tailed).

Table 5: Basic descriptive statistics of the constructs (n=246)
Figure 2: Hypothesized results
Fig. 3. Interaction effect of entrepreneurial bricolage and sustained competitive advantage on regulatory pressure
Hypothesis | Result
---|---
H1. Entrepreneurial bricolage positively affects sustained competitive advantage. | Supported
H2. (a) Differentiation advantage and (b) risk management mediates the entrepreneurial bricolage- sustained competitive advantage link. | Supported
H3. Regulatory pressure moderates the entrepreneurial bricolage- sustained competitive advantage link, such that the link is stronger for high rather than low regulatory pressure. | Supported
H4. Industry pressure moderates the entrepreneurial bricolage- sustained competitive advantage link, such that the link is stronger for high rather than low industry pressure. | Unsupported

Table 6: Summary of hypothesis testing.