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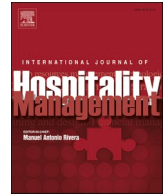
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Exploring the effects of service innovation ambidexterity on service design in the tourism and hospitality industry

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ABSTRACT

Although the entrepreneurship strategy is demonstrated by evidence as a path to enhance the performance of service firms, the question of how it happens has yet to be adequately studied in the tourism and hospitality (T&H) realm. More specifically, how an entrepreneurial strategy enables a T&H firm to enhance its performance through service innovation exploration-exploitation ambidexterity has created a strategic dilemma in extant T&H literature. Constructed on the dynamic capabilities view and organizational ambidexterity theory, our paper addresses this dilemma using data from a drop-and-collect survey of 303 T&H firms in Japan. The findings reveal that entrepreneurial strategy fosters service innovation exploitation and service innovation exploration within T&H firms. In contrast, service innovation exploitation helps T&H firms design unique service offerings, yielding a sustained competitive advantage and superior corporate performance in the long run. Further, the availability of slack resources within T&H firms fosters service innovation exploration and service innovation exploitation.

1. Introduction

Entrepreneurial strategy (ENST) is an emerging field of research in the strategic management research domain that attracts the interest of many scholars worldwide (Fan et al., 2023, Iqbal and Khizar, 2022). An ENST reflects a firm's commitment to risk-taking, innovativeness, and proactiveness in developing and implementing its corporate strategies (Lee and Herrmann, 2021; Tajeddini and Mueller, 2019). Today, ENST has become a necessity for tourism and hospitality (T&H) firms as a T&H firm's long-term competitiveness rests on how well it embodies service innovations (SINs) to deliver quality services to customers despite the unforeseen risks in the corporate environment (Barney et al., 2021; Moyle et al., 2020). Consequently, ENST is anticipated to positively influence the corporate performance of T&H firms and is observed as a critical foundation of competitive advantage for T&H firms today (Lim

and Ok, 2021).

However, empirical research on ENST and corporate performance in the T&H realm is inconclusive (Barney et al., 2021), and several gaps require attention. First, although there often appears to be a robust normative bias in prior strategic management literature that an ENST positively influences desired performance outcomes of a business firm, such as revenue and profit growth (Kreiser et al., 2021; Lee and Herrmann, 2021), the question of how it happens has not been adequately studied regarding T&H firms (Barney et al., 2021). Many conceptual studies and empirical research have often been criticized for being tautological and vague in depicting the underlying mechanism of ENST influencing corporate performance (Kallmuenzer et al., 2019). One plausible explanation for these unclear findings is that a simple, linear relationship may be inadequate to explain the connection between ENST and corporate performance (Kreiser et al., 2021). Instead, as Kearney

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et al. (2021) emphasized, a multivariate approach may need to explore other congruent organizational-level constructs that can significantly influence the performance implications of ENST. Second, the recent conceptual evidence in the strategic management literature proposes SIN and sustained competitive advantage (SCA) as possible organizational-level constructs mediating the association between ENST and corporate performance (Ferreira et al., 2020). However, the extant T&H management literature lacks a robust integrative theoretical framework to scrutinize the mediating effects of SIN and SCA on the link between ENST and corporate performance (Barney et al., 2021). In this paper, we address this gap by introducing service design (SD), a notion that has received scant scholarly attention in T&H management literature, as a novel construct that mediates the relationship between SIN and SCA. Based on Patrício et al.'s (2018) view, we proposed SD as a mediator, arguing that managing SIN requires continuously designing and redesigning existing and new service offerings utilizing state-of-the-art technologies to cope with frequent alterations and emerging opportunities in modern markets. As such, our study could address Hameed et al.'s (2021) call for studies linking SD and SIN, which remain largely unexplored in T&H management literature, mainly due to their scattered and heterogeneous nature.

Third, achieving an edge over the competition requires T&H firms to be innovative in two ways simultaneously: *SIN exploration* (i.e., introducing new services with radical changes to serve new customers and markets) and *SIN exploitation* (i.e., incremental improvements to existing services serving current customers and markets) (Kitsios and Kamarriotou, 2021). Typically, a service firm's orientation toward achieving competitive advantage simultaneously through SIN exploration and exploitation has created a strategic dilemma termed SIN exploration-exploitation ambidexterity in the service management literature (Cho et al., 2020). Although exploring new services to be competitive while addressing changing customer preferences may give long-term corporate success, simultaneously, service firms may fail to exploit the full potential of existing services to enhance desired corporate performance in the short term (Kitsios & Kamarriotou, 2020). Nevertheless, until today, the existing T&H literature on addressing this strategic dilemma concerning SIN exploration-exploitation ambidexterity is scarce, and no theoretical framework to capture the full spectrum of the innovation potential of a T&H firm has developed (Öberg and Kollberg, 2021).

Based on this discourse, we seek to achieve the following objectives in this paper by developing and validating a theoretically-driven conceptual framework grounded on the dynamic capabilities view (DCV) (Teece, 2021, 2022) and organizational ambidexterity theory (March, 1991) to address the void in prior literature.

- 1) To understand how ENST enhance the performance of T&H firms through balancing explorative and exploitative SINS.
- 2) To examine the mediating effects of SIN, SD and SCA in converting ENST into the enhanced performance of T&H firms.

We selected the DCV and organizational ambidexterity theory as the theoretical underpinning of this paper, as the increasing complexity of T&H management literature reveals that previous attempts to enhance theoretical insights through a single theoretical lens are insufficient (Barney et al., 2021). The DCV is widely recognized as a theoretical perspective that illustrates how business firms demonstrate timely responsiveness and rapid adaptation to environmental dynamics through internal changes in their skills, competencies, and resources (Bogers et al., 2019; Ferreira et al., 2020). Due to frequent and rapid environmental changes in modern markets, the increased attention to SIN generates the pressing need to extend discussions on the DCV into the SIN research domain within this paper (Heinonen and Strandvik, 2020). On the other hand, although organizational ambidexterity theory is a central tenet to the competitive position of a business firm (Maclean et al., 2021), as of yet, scant scholarly attention has been paid to understanding how it can aid T&H firms to attain a competitive advantage by fostering SINS (Kitsios and Kamarriotou, 2021). By integrating DCV

and organizational ambidexterity theory, this empirical research paper provides a more nuanced view of how SIN exploration-exploitation ambidexterity is achieved and contributes to SCA and enhanced performance of T&H firms.

We used responses from a questionnaire-based survey of 303 T&H firms in Japan to perform the empirical analysis using partial least squares-structural equation modeling (PLS-SEM). Our findings provide four key contributions to T&H management literature. First, based on the DCV and organizational ambidexterity theory, this study proposes an integrated conceptual framework articulating how fostering ENST and SINS must work through designing unique services that customers see as high quality to be competitive in the long run and enhance corporate performance. By doing so, this paper views SIN as a dynamic capability (DC) within T&H firms. Further, we contribute to T&H management literature by explicating the linkage between SIN and SD, which has gained scant attention (Kandampully and Solnet, 2020). In this study, we emphasize that SD further strengthens the SIN potential of a T&H firm as it brings creative and novel solutions through a pragmatic process by comprehending customers' latent needs and envisioning future service solutions utilizing state-of-the-art technologies. Second, following organizational ambidexterity theory, this paper presents a novel conceptualization of SIN as SIN exploration and exploitation. Third, since pursuing a delicate equilibrium between SIN exploration and exploitation is resource-intensive, a T&H firm needs to have sufficient slack resources to utilize in these activities (Jiang et al., 2021). Nevertheless, extant T&H management literature has overlooked the vitality of slack resources in influencing a T&H firm's decisions to pursue SIN exploration and exploitation (Bodhanwala and Bodhanwala, 2022). This study contributes to prior literature by exploring the differential contingency influences of slack resources on a T&H firm's decision to pursue SIN exploration and exploitation. Fourth, becoming customer-focused when designing SINS is critical for a T&H firm to achieve an SCA (Tajeddini et al., 2020, 2024). In this sense, customer focus can significantly strengthen the link between SIN exploration/exploitation and SD. However, despite its importance, inadequate attention has been paid to examining the role customer focus plays in enhancing a T&H firm's ability to pursue SIN exploration and exploitation (Mohammadi et al., 2021; Karami et al., 2013). This paper adds value to T&H management literature by identifying the moderating impact of customer focus on the relationship between SIN exploration and exploitation and SD in understanding the interplay between ENST and the performance of T&H firms.

The paper is structured as follows. In the beginning, the two theoretical lenses of this study are explained, and the integrated research model is presented. Then, the empirical study is presented, followed by the key findings. Finally, the outcomes are deliberated in detail while offering theoretical and managerial implications.

1.1. Theoretical background

1.1.1. Strategic management theories in the T&H realm

An organization's potential to achieve an SCA in a dynamic marketplace lies in its ability to deploy its strategic resources and capabilities to capture opportunities or counter threats in its immediate environment to create value for key stakeholders (Furrer et al., 2008). This concept was the central tenant to the existence of organizations, as scholars in strategic management (Dess et al., 2021) and the T&H research domains had emphasized in various attempts over the past several decades (Kallmuenzer et al., 2021; Harrington et al., 2014; Köseoglu et al., 2019). Since the strategic management literature has a great history compared to the recently emerged T&H research domain, the evolution of the T&H literature has been mainly captured by theories and models set in the mainstream strategic management literature (Köseoglu et al., 2019). Our review of T&H literature indicates that the key topical areas of strategic management literature used in the T&H realm include the environment and the contingency perspective,

corporate and business strategies (including competitive strategies), and organizational/firm structure/core competencies and strategy implementation.

T&H management research developed in the 1980 s and 1990 s greatly emphasized strategic planning, the environment, and the contingency perspective (Harrington et al., 2014). During that time, the central focus of most of the T&H management research was on the need to focus on the role of the environment in formulating and implementing strategies and their impact on firm performance. PESTEL analysis, Porter's five forces model, and SWOT analysis were well-tested theoretical frameworks used in these studies (Evans, 2015). The growing popularity of Porter's competitive strategies framework in the mainstream strategic management literature led to an increased interest in this topic in the early 1990 s, with various research efforts in the T&H context (Köseoglu et al., 2019). Most T&H management scholars in the 1990 s emphasized that achieving a competitive advantage for a T&H firm was based primarily on external opportunities, threats, and industry competition (Harrington et al., 2014; Qalati et al., 2023). In contrast, during the 2000 s, organizational/firm structure/core competencies and strategy implementation, which focused more on the internal firm resources and capabilities in achieving competitive advantage, received more emphasis in T&H management literature (Harrington et al., 2014). During this time, the T&H management literature was mainly dominated by two strategic management theories: the resource-based view (RBV) and the DCV (Evans, 2015).

Recently, the mainstream research in the T&H management domain emphasized the need to rekindle DCV with other relevant theoretical models in strategic management literature in studying how the business strategies formulated by T&H firms influence their performance (Evans, 2015; Köseoglu et al., 2019). Therefore, we decided to integrate the DCV with the organizational ambidexterity theory in this paper to examine how ENST enhances the performance of T&H firms. The selection of the organizational ambidexterity theory was mainly driven by the fact that it plays a central focus in the strategic management literature as a theory paramount to the competitive position of a business firm and also mainly influences the SIN potential of business firms (Maclean et al., 2021).

1.1.2. Dynamic capabilities view (DCV)

Penrose (1959) presented the ground-breaking work on the RBV theory, stressing the vital role of internal resources in the growth of a business firm. Prior research focused on the RBV domain theorized a business firm as a distinctive collection of diverse resources that work together to compete in markets (Barney, 1991, 1997). All tangible and intangible assets and capabilities a corporation uses to implement competitive business strategies are firm resources (Teece et al., 1997). Illustrations of firm resources include capital, machinery and equipment, skilled employees, technical expertise, managerial know-how, efficient procedures, and supplier-partner networks (Wernerfelt, 1984). Research on the RBV in the early 2000 s emphasized that not all firm resources can build strong competitive positions for a firm. Instead, only strategic resources can create SCA for a firm. As Barney (2001) postulates, critical attributes of strategic resources include valuable, rareness, imperfectly imitable, and non-replaceable. Strategic resources are recognized as a vital determinant of corporate performance (Prieto-Sandoval et al., 2019) and play a crucial role in a firm's capability development process. Therefore, every firm wants to acquire, accumulate, and divest strategic resources to create a compelling resource portfolio to respond to volatile environmental alterations.

The application of the RBV theory at the initial stage was mainly criticized for explaining achieving competitive advantage in a static corporate environment, thus having limited applicability to highly competitive and constantly changing corporate environments (Azadegan et al., 2019, 2020). Extending from the RBV theory, the DCV emerged to address this issue by explaining how firms respond and adjust to alterations in unpredictable markets with intense competition (Schoemaker et al., 2018). As Eisenhardt and Martin (2000)

emphasized, DCs are composed of particular processes that aid firms in making strategic decisions to compete in quickly shifting markets through producing new products/ services and forming alliances and partnerships with the industry. The value of DCs lies in the ability of corporations to adjust and tailor resources in the best possible manner that suits the shifting market conditions (Bogers et al., 2019; Fan et al., 2022, 2023; Siddiqui et al., 2023). Their impact can change depending on how dynamic the market is. Some capabilities, for instance, may perform better in highly competitive mature markets, while others will function better in emerging markets.

DCs relate to a corporate capacity to continually mobilize and deploy its strategic resources and capabilities to strengthen its core competencies to gain a competitive edge (Wang and Ahmed, 2007). As Wang and Ahmed (2007) argue, DCs are integral to corporate processes. This is because corporate processes are explicit and transferable inside and outside the firm. Further, DCs enable firms to deploy explicit and implicit intangible resources in corporate processes, such as employees' skills, knowledge, and experiences. Therefore, DCs are developed over time as complex processes (Wang and Ahmed, 2007). By utilizing DCs, firms adapt to changing environments faster and more efficiently, resulting in innovations that gain and sustain competitive advantage by reconfiguring, extending, and modifying the existing firm resources (Eisenhardt and Martin, 2000; Gamage et al., 2022).

Most of the research that utilizes the DCV has focused on product-centric firms emphasizing product-related and technology-related aspects (Fabrizio et al., 2022). However, product-centric corporations, which have conventionally grounded their competitiveness on new product development and innovations, are progressively moving toward services, mainly focusing on innovations in SD and delivery (Bhat and Sharma, 2022). Consequently, extending the DCV to the T&H management research domain is necessary.

1.1.3. Organizational ambidexterity theory

One of the most lasting ideas in strategic management emphasizes that long-term corporate success is contingent on its capacity to exploit its existing resources while concurrently exploring novel resources and competencies. March (1991) is the first scholar to theorize the trade-off between these twin requirements as ambidexterity. On the one hand, exploitation can be used to gain short-term benefits. However, by doing so, in some instances, firms fail to adapt to the demands of current markets, which may sacrifice long-term profitability. On the other hand, the overzealous emphasis on exploration, in which a firm constantly looks for novel ideas, may be similarly flawed. Thus, prior literature indicates neither option promotes organizational longevity alone (Bustinza et al., 2020). Instead, there is a general agreement that combining these two options is required to achieve long-term success.

The growing surge for ambidexterity to achieve innovation has focused more on product-centered innovations (Peters and Buijs, 2022). However, the ambidexterity view has not been adequately discussed in the realm of SINs (Vo Thanh et al., 2020). Further, a coherent understanding of how service ambidexterity enables T&H firms to attain a competitive advantage and longevity is lacking in the T&H literature (Öberg and Kollberg, 2021). In this paper, therefore, we decided to use the DCV and organizational ambidexterity theory as the theoretical underpinning to study how ENST enables T&H firms to utilize firm resources and capabilities to be innovative and competitive, enhancing corporate performance in the dynamic corporate environment.

1.2. Hypotheses development

1.2.1. Entrepreneurial strategy and service innovation ambidexterity

The notion that entrepreneurship drives innovation is well-established in prior research (Doern et al., 2019). For instance, the early roots of the link between innovation and entrepreneurship can be traced back to the 1930 s when Schumpeter et al. (1934) viewed innovation as the main factor driving economic growth. Having a similar

idea, Herbig et al. (1994)) emphasized the importance of infrastructure, capital, and the entrepreneurial capacity for innovation. A firm's entrepreneurship strategy involves balancing opportunity-seeking and advantage-seeking activities (Lee and Kreiser, 2018). Opportunity-seeking aids firms in identifying and sorting potential opportunities for innovation exploitation (Hughes et al., 2021). In contrast, advantage-seeking helps firms to be the first to determine the next frontier in the ever-changing modern markets, fostering innovation exploration (Hughes et al., 2021). In most T&H firms, managers are forced to formulate entrepreneurial strategies to embrace broader capabilities and strategic resources to simultaneously achieve SIN exploitation and exploration without allowing their identity to become diluted or schizophrenic (Cho et al., 2019). By doing so, they can exploit unforeseen opportunities in the corporate environment and achieve a competitive position (Moyle et al., 2020). Thus, we assume:

H₁ : ENST has a significant positive effect on (a) innovation exploration, and (b) innovation exploitation of T&H firms.

1.2.2. Service innovation and service design

Prior literature on SIN is fragmented and poorly studied about the SIN exploration-exploitation ambidexterity (Snyder et al., 2016). In line with March (1991), SIN exploitation is recognized to contribute to temporary corporate return, while SIN exploration benefits long-standing corporate accomplishment (Sok and O'Cass, 2015). Further, it was revealed that SIN exploration and exploitation are distinct and non-identical. Thus, corporations should establish complementarity between SIN exploration and exploitation to gain superior corporate performance (Vo Thanh et al., 2020). SIN exploration-exploitation ambidexterity can be defined as maintaining the midpoint on a continuum between these two forms of innovation (Sok and O'Cass, 2015). However, striking ambidexterity between these two forms of innovation poses a challenge because these two types are distinct and have different demands regarding variability, timing, and resources (Batt et al., 2019).

Consequently, in this paper, we define SIN as a DC that encompasses the resources and corporate processes that T&H firms use to mobilize, coordinate, and integrate these two contradictory innovation efforts in an ambidexterity manner (Teece, 2007). Accordingly, SIN is characterized as a multi-dimensional concept of SIN exploration and exploitation as two dimensions. With increasing information transparency and greater access to marketplace information resulting from rapid technological developments, today, customers demand that T&H firms provide better services by improving existing services and introducing new services (Huang & Jahromi, 2021). For customers to be satisfied with the services offered by T&H firms when designing the service portfolio, they need to pursue a high level of SIN exploitation that augments the quality and efficiency of their existing services. Moreover, at the same time, T&H firms need to chase a high level of SIN exploration to evaluate the possibility of introducing innovative services (Öberg and Kollberg, 2021). Accordingly, we hypothesize that:

H₂ : Higher magnitude of SIN exploration within T&H firms are associated with higher magnitude of SD.

H₃ : Higher magnitude of SIN exploitation within T&H firms are associated with higher magnitude of SD.

1.2.3. Service design, sustained competitive advantage, and corporate performance

The term SD initially originated from the notion of a service blueprint, conceivably the first attempt to view service encounters from a customer's perspective (Darvishmotevali et al., 2023; Prestes Joly et al., 2019). Over the years, it has been developed as a customer-centered, all-encompassing, holistic paradigm focused on enhancing existing service offerings or introducing new ones predominantly from the customers' perspective (Lin et al., 2011; Patricio et al., 2018). Since T&H services are primarily intangible, unique service design enables T&H

firms with an in-depth and holistic understanding of customers to co-create customer-centric, meaningful experiences with their guests, perhaps using state-of-the-art technologies and more visualized physical artifacts (Zomerdijk and Voss, 2010). Recently, there has been resurgence in the SIN research domain, focusing on leveraging SD as a key research priority (Kitsios & Kamariotou, 2020). For instance, Andreasen et al. (2016)) brought a SIN research standpoint to the SD by introducing it as an innovative method that can assist service providers in delivering unique service offerings to customers in their attempts to become more customer-centric. Consequently, SD adds a novel perspective to the SIN research domain by emerging as a multifaceted concept incorporating value propositions offered to customers and service interfaces that embody service offerings fostering innovations (Patricio et al., 2018).

Despite the increased attention towards SIN literature lately (Kitsios & Kamariotou, 2020), it is still unclear how SD and innovation can enhance the performance of a T&H firm (Tomej and Xiang, 2020). More specifically, the T&H management literature poorly understands the SD and innovation link (Shin and Perdue, 2022). In this paper, we address this void by arguing that innovative and distinctive SDs result in unique service offerings that allow T&H firms to craft unmatched customer experiences, thus creating a differentiated, unique positioning in the market. In his seminal work, Porter (1985) suggested two effective methods by which a firm can attain a competitive position over its competitors: cost leadership 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, and superior customer service, which must be difficult for rivals to imitate (Tomej and Xiang, 2020). Firms are adopting a cost leadership strategy focusing on leveraging strategic resources to minimize the cost structure in competing with other companies in the industry or segment they target (Hilman and Kaliappen, 2014). Since unique and different SD facilitated with state-of-the-art technologies enables novel value co-creation opportunities for T&H firms to provide a holistic, customer-centric experience (Tomej and Xiang, 2020), it is reasonable to assume that SD allows them to generate a competitive position through differentiation and sustain it in the long run. Further, such innovative SDs allow T&H firms to maintain their competitive stance in the long term while minimizing operational costs and enhancing firm performance. Therefore, it is hypothesized that:

H₄ : SD is positively associated with the level of (a) sustained competitive advantage and (b) corporate performance.

1.2.4. Sustained competitive advantage and corporate performance

Possessing an SCA implies that a T&H firm provides either comparatively lower-priced services (cost leadership) or higher-quality services (differentiation) compared to competitors in the long run (Lim and Ok, 2021). T&H firms with the capabilities to possess an SCA can substantially increase their corporate performance in various ways. For instance, T&H firms that offer high-quality services can switch to a premium pricing model, thus increasing profit margins and return on investment (Kandampully and Solnet, 2020). Further, T&H firms with short time-to-market and rapid product/ service innovations are emerging as market leaders, improving market share and sales (Nyanga et al., 2020). Conversely, T&H firms that provide a cost-effective service portfolio can acquire a larger market share than competitors (Mohammadi et al., 2021). Therefore, we assume,

H₅ : Higher levels of SCA of T&H firms are associated with higher levels of corporate performance.

1.2.5. Slack resources and service innovation ambidexterity

Firm resources can be categorized as slack resources and employed resources based on whether they are being used (Bao et al., 2020). Slack resources are the excessively utilizable resources available to a firm for further investment (Zheng et al., 2022). In contrast, employed resources

are those that firms utilize during a specific corporate cycle. Modern markets with rapid environmental changes require T&H firms to demonstrate excellent responsiveness to altering customer needs and wants (Lee et al., 2021). As such, a T&H corporation’s pursuit of constant innovation of its services has become vital to its competitiveness (Tajeddini et al., 2020). By their very nature, SINS are resource-intensive activities supported by slack resources (Sun et al., 2020). Slack resources allow T&H corporations the flexibility required to pursue innovation exploitation by acting as safety nets for uncertain success, absorbing failures, covering the expenses of developing innovation, and fostering an experimental culture (Zheng et al., 2022). Conversely, slack resources can also promote innovation exploration within T&H firms by strengthening a T&H firm’s adaptive response to frequent environmental changes to explore new opportunities. As such, achieving SIN exploitation and exploration by T&H firms simultaneously requires and is facilitated by sufficient slack resources. Therefore, we assume,

H₆ : Slack resources have a significant positive effect on (a) SIN exploration and (b) SIN exploitation of T&H firms.

1.2.6. Customer focus and service design

Becoming customer-focused by creating and improving customer experience through innovative SDs is a growing priority for managers in different service industries, and T&H firms are no exception (Mohammadi et al., 2021). Designing unique and novel service portfolios always starts with becoming a customer focus by creating a positive connection with customers and responding to their feedback (Darvishmotevali et al., 2023). In that sense, customer focus is presumed to favor SD because it allows a firm to create novel customer experiences that increase customer benefits while decreasing operational costs (Prestes Joly et al., 2019).

In modern markets, T&H firms often focus on serving and assisting customers in developing and strengthening customer relationships (Carvalho and Alves, 2023;Graham et al., 2020). Therefore, T&H firms should emphasize the demand-driven, customer-focused paradigm due to their service-intensive nature that is dependent on designing and delivering unique SINS (Mohammadi et al., 2021). Accordingly, we hypothesized that:

H₇ : A higher magnitude of customer focus is associated with a higher magnitude of SD of T&H firms.

1.2.7. Moderating effect of slack resources and customer focus

Although having slack resources within firms facilitates creative behavior, fostering entrepreneurial initiatives and product/ SINS (Agrawal et al., 2018), prior literature on slack resources primarily

focuses on investigating its effect on product/SIN (Bao et al., 2020). So far, very little prior research has been conducted to examine the impact of slack resources in explaining the influence of ENST on product/ SIN (Du et al., 2022).

To theoretically frame the role of slack resources as a stimulator of the bond between EO and SINS of T&H firms, we depend on contemporary arguments interrelated to the resource orchestration theory (Bao et al., 2020), which further our comprehension of RBV. As the resource orchestration theory implies, firms must look beyond acquiring new resources. Instead, they can reconfigure existing resources creatively, thus fostering innovations and enhanced corporate performance (Sirmon et al., 2011). The presence of slack resources has become firms’ top priority in modern markets. This is because they might encourage experimentation within firms to explore novel innovations and pathways that would otherwise not be possible without using excessive resources (Du et al., 2022). Consequently, adopting the resource orchestration theory, in this paper, we propose that T&H firms endowed with slack resources will perform even better if they adopt an ENST for adapting and recombining their slack resources into SINS. Accordingly, we hypothesized that: Fig. 1

H₈ : Slack Resources moderates the effects of ENST on (a) SIN exploration and (b) SIN exploitation of T&H firms.

Maintaining close customer interactions and accumulating customer intelligence is vital for T&H firms that intend to create SINS to satisfy customers’ latent needs ahead of the competition (Mohammadi et al., 2021). Customer-focused T&H firms are more likely to differentiate the market by exploring the possibility of designing new value-added SINS to distinguish them from competitors and maximize customer satisfaction (Hollebeek and Rather, 2019). Further, customer-focused T&H firms tend to improve existing service portfolios by enhancing SD, thus capturing a larger market share (de Larrea et al., 2021). Consequently, customer focus is critical to a T&H firm’s SD and service innovation (de Larrea et al., 2021), strengthening the bond between a T&H corporate SIN exploration-exploitation ambidexterity and SD. Therefore, we contend that:

H₉ : Customer focus moderates the effects of SIN exploration on SD of T&H firms.

H₁₀ : Customer focus moderates the effects of SIN exploitation on SD of T&H firms.

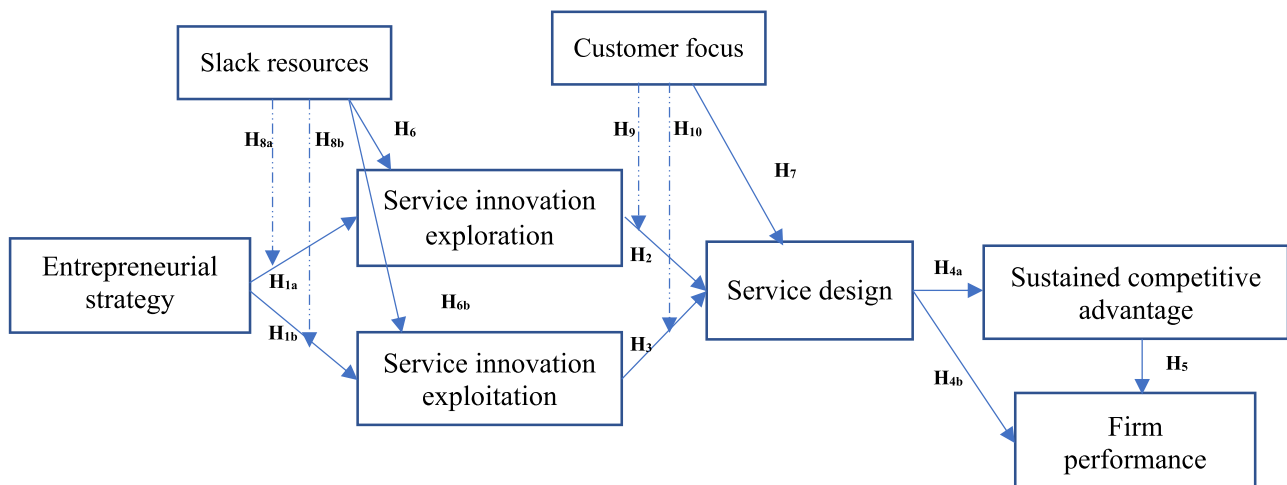


Fig. 1. The proposed conceptual and hypothesized framework.

2. Method

2.1. Data collection

The proposed theoretical model was tested using a sample of T&H firms (e.g., accommodation, events and conferences, transportation, food and beverage, travel, tour operators, and destination marketing organizations) located in Japan. Prior studies on SIN have largely focused on peculiar service firms, such as financial services (e.g., Biemans et al., 2016), particularly in countries in Western Europe and North America (Carlborg et al., 2014). Nevertheless, additional studies are needed to increase our knowledge and deep understanding of the key influential factors on SINs and SD in different service industries, such as T&H firms (Aspara et al., 2018; Santos-Vijande et al., 2021). Even though low entry barriers and employee qualification levels can make T&H firms less competitive (Zehrer & Hallmann, 2015); the T&H industry has faced global competition and is known to play a pivotal role in fostering economic growth in contemporary economies (Santos-Vijande et al., 2021; WTO, 2021). At the same time, the T&H industry is considered to gain the most significant share of tourists' total expenditure on accommodation, reinforcing and stimulating improvements in areas such as SIN and SD to adapt to changing customer preferences and competitive pressures (Santos-Vijande et al., 2021).

Japan was selected as the research context because most prior research demonstrates that SIN in the services industry is vital for revitalizing the Japanese economy, as the share of manufacturing firms is declining steadily (Murakami, 2016; Tajeddini et al., 2020). Despite various shortcomings of Japanese firms mentioning that they still concentrate on 'ordinary capabilities' rather than 'dynamic capabilities' (cf. Teece, 2021), Japan is an innovation-driven mature economy shifting towards the service sector, focusing on fostering SINs (Hughes et al., 2022; Lee et al., 2005; Tajeddini et al., 2023), thus creating ideal research setting for this paper.

This study used a questionnaire-based survey of 303 T&H firms in Japan conducted from May 2021 to February 2022 as the primary data collection method. The questionnaire was designed to examine the effects of SIN ambidexterity on SD in T&H firms. An English version of the survey questionnaire was first developed from the established measurement scales and then was translated from English into Japanese by two bilingual professionals adopting the conservative back-translation approach to enhance the meticulousness of the original scales in the Japanese language (Behr, 2017). On this basis, those items that were significantly different from the original scales were identified and then modified carefully. Before the formal survey, a pretest was carried out with three experts in the service industry, followed by six T&H managers, to further cross-validate the survey and enhance the accuracy of the translated measurement scale items.

Following Hair et al.'s (1995) suggestion, the sample size must be at least five times the observed variables required. Since there are 38 observed variables in this research, the minimum recommended sample size required is $38 \times 5 = 190$. A master list of 1200 various Japanese T&H firms was obtained from publicly available data (e.g., from home pages of websites, promotional travel agencies websites, and databases with information about addresses and founding year of T&H firms) from three main prefectures (Tokyo, Kyoto, and Osaka) of Japan. We screened and eliminated duplicate firms in multiple databases and contacted several managers and service executives from the selected T&H firms (e.g., hotels, restaurants, travel agencies, tour operators, transportation companies). A senior executive manager (e.g., owner, CEO, vice president) served as the key respondent in each firm because they play a significant decision-making role in their respective firm. To enhance the response rate, data were gathered using a personal drop-off and pickup survey by leaving the questionnaire for informants to complete at a convenient time and picking up the completed questionnaire later. This method allows trust to be gained by establishing connections with prospective study respondents to increase the response rate. Over 70

percent of the survey questionnaires were completed on the spot, whereas the rest were retrieved one week later. Of the 1200 questionnaires distributed, 303 valid and effective responses were yielded (25.25%) as an acceptable response rate from T&H firms in Tokyo, Kyoto, and Osaka that met the minimum criteria for reliability and generalizability. Ineffective questionnaires were disregarded because of missing values. After collecting the data, a database was created and carefully screened to ensure no overlaps. Adhere to Armstrong and Overton's (1977) suggestion, a chi-square difference test ($\Delta\chi^2$) found no systematic differences between those responding before and after the drop and collect method, which recommended that non-response bias was an influential adverse factor.

2.2. Measurement development

Except for control variables, including firm size, age, type, and technology, measuring all major constructs entails employing multi-item scales. After a comprehensive literature review on SIN, strategic management, and T&H management, we selected the established measures from previously used and validated measurement scales. The latent variables were operationalized using Likert scales, and informants were asked to specify their agreement level with the measurement scales. In doing so, one of the most challenging complications was measuring the SD construct reliably and validly. Since SD was conceived as a long-term strategy for the customer journey to create touchpoints to enhance customers' experiences, managers and owners were recruited to participate in the survey questionnaire. Unlike the previous studies, which have used the inclusion of the items with SIN (cf. Hao, 2021), we operationalize SD, including a set of five items drawn from prior research (e.g., Song and Parry, 1997; Zhang et al. (2000); Zu, 2009). The scale items for the SD construct are formative, actually capturing some (but not all) of the multiple conceptual dimensions that have been proposed in the literature.

SIN exploration and **SIN exploitation** were assessed using an eight-item measurement scale borrowed from He and Wong (2004). The scales of both innovation constructs appear formative. Corporate performance was operationalized using a five-formative item entailing a range of perceptual financial indicators over the last three years (Khan et al., 2023).

Entrepreneurial strategy, customer focus, slack resources, and SCA are reflective. We used five items from Naman and Slevin (1993) to measure entrepreneurial strategy. Customer focus was operationalized with a five-item from past research (e.g., Silva et al., 2014). SCA was operationalized by adopting four items derived from strategic scholars such as Foss and Knudsen (2003). This scale emphasizes evaluating rivals' inability to replicate the advantages of a value-creating approach (e.g., Salunke et al., 2013) (Appendix A). We incorporated a robust set of control variables at the organizational level to mitigate the likelihood of unobserved common causes of the results and the key drivers. We included organizational size, age, and type as control variables in the study. **Firm size** (reflected by employee numbers and performed as a log transformation (\ln) of the number of full and part-time workforces); **firm age** (reflected by years of operation, which can be observed as a proxy for valuing the firm's experiences in the strategic decision-making process and was calculated with a continuous variable demonstrating the log of the number of years (\ln) since the founding of the firm), and **firm type** (reflected the freestanding firm (=0) and dependent firm (=1), such as a multinational subsidiary) (Tajeddini, 2016). We also controlled the benefits of deploying new-fangled **technology** (e.g., IoT and cloud computing, outweigh cybersecurity concerns) on SD in the current year (1= major implementation; 0 = no implementation). These variables are relevant in the sense that larger, older, and dependent firms may possess greater experience with SIN in practices and are likely to exhibit greater levels of SD with favorable or unfavorable performance outcomes than smaller, younger, and independent firms (Anderson and Eshima, 2013). Likewise, high-tech firms may benefit

more from deploying new technology conducive to enhanced corporate results than low-tech firms (Tzokas et al., 2015).

2.3. Common method variance (CMV)

The exclusive use of self-report measures in this study raises concerns concerning common method bias (i.e., percept–percept inflation). Thus, multiple approaches were employed to diminish response bias. First, considerable attention was paid to questionnaire design, such as scale item trimming and randomly distributed items. Next, we followed the procedure proposed by Lindell and Whitney (2001) to use a proxy (i.e., a theoretically unrelated scale as a Marker-Variable Technique "MV"). A three-item social values scale as a proxy of marker-variable was adopted from Berthon et al. (2005). This measure was chosen because the scale items did not seem to have any theoretical association with any concepts embedded in the research. The measurement scale of social values consists of (1) Employees have a good relationship with colleagues; (2) Employees have a good relationship with superiors; and (3) Employees are working in a happy environment. The scale yields acceptable reliability ($\alpha=.71$). Thus, we selected the second-lowest positive correlation ($r_m=.029$) between social values and the other variables to lessen capitalizing on chance (see Lindell and Whitney, 2001, p.118).

We performed the equations Grayson (2007) suggested to examine the adjusted correlations and their statistical significance (Appendix A).

Table 1
Descriptive statistics intercorrelations, shared variances, and marker variables adjustment (n=303).

Variables	SIZE	AGE	TYPE	TECH	MV	EST	SLR	EXR	EXT	COM	BAL	CUF	DESIGN	SCA	FP
Firm size (SIZE) Log	1	.184**	.004	.15**	.038	-.147*	-.118	-.121	-.129	-.143*	-.036	-.048	-.159*	-.129	-.108
Firm age (AGE) Log	.213**	—	0	-.057	-.129	.011	.007	.001	-.067	-.034	.026	.021	.002	.037	.005
Firm Type (TYPE) Technology (TECH)	.033	.029	—	.037	-.06	-.011	-.103	-.091	-.03	-.069	-.093	.143*	.15*	-.34	-.118
Method Variance Marker (MV)	.179**	-.028	.066	—	-.06	-.1	-.123	-.049	-.09	-.071	.001	-.043	-.03	-.113	-.033
Entrepreneurial strategy (EST)	.067	-.100	-.031	-.031	—	-.112	0	-.054	.01	-.033	-.065	-.056	-.07	-.093	-.087
Slack resources (SLR)	-.118*	.040	.040	-.071	-.083	—	.414**	.29**	.517**	.45**	-.192**	.545**	.526**	.547**	.489**
Innovation exploration (EXR)	-.089	.036	-.074	-.094	.029	.443**	—	.398**	.486**	.491**	-.054	.474**	.467**	.547**	.511**
Innovation exploitation (EXT)	-.092	.030	-.062	-.020	-.025	.319**	.427**	—	.441**	.655**	.569**	.26**	.386**	.284**	.384**
Combined innovation (COM)	-.100	-.038	-.001	-.061	.039	.546**	.515**	.470**	—	.588**	-.449**	.448**	.554**	.591**	.561**
Balanced innovation (BAL)	-.114*	-.005	-.040	-.042	-.004	.479**	.520**	.684**	.617**	—	.145**	.382**	.54**	.468**	.515**
Customer focus (CUF)	-.007	.055	-.064	.030	-.036	-.163**	-.025	.598**	-.420**	.174**	—	-.163*	-.127	-.27**	-.141
Service Design (DESIGN)	-.019	.050	.114*	-.014	-.027	.574**	.503**	.289**	.477**	.411**	-.134*	—	.516**	.581**	.594**
Competitive advantage (SCA)	-.130*	.031	.121*	-.001	-.041	.555**	.496**	.415**	.583**	.569**	-.098	.545**	—	.547**	.499**
Firm performance (FP)	-.100	.066	-.005	-.084	-.064	.576**	.576**	.313**	.620**	.497**	-.241**	.610**	.576**	—	.609**
Mean	-.079	.034	-.089	-.004	-.058	.518**	.540**	.413**	.590**	.544**	-.112	.623**	.528**	.638**	—
Standard Deviation	1.50	1.72	1.97	1.80	4.69	4.21	4.08	4.10	4.21	17.41	-.11	4.20	4.19	4.25	4.27
Average Variance Extracted	.09	.05	.33	.39	1.30	.49	.51	.55	.48	3.63	.53	.50	.49	.48	.49
Highest Shared Variance	—	—	—	—	—	.64	.84	.72	.77	—	—	.54	.56	.79	.54
	—	—	—	—	—	.33	.33	.47	.38	—	—	.38	.33	.40	.40

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 1 demonstrates the outcomes of the intercorrelations among the original variables (i.e., the pre-adjustment) and the Marker-Variable adjustment of the variables. The results show that the Marker-Variable adjustment does not affect or amend any correlation coefficient’s sign and significance level. Consequently, this explains that the intercorrelations exhibited in the research framework are unlikely to be inflated due to CMV. Moreover, social values responding was combined as a control variable to mitigate CMV issues.

3. Findings

The association between SD ($\beta = -.130$, $p < .05$) and ENST ($\beta = -.118$, $p < .05$) is negatively yet significantly affected by the size of the corporation (Table 1). The findings demonstrate that smaller firms will likely exhibit greater levels of SD and proclivity towards entrepreneurial strategy. Customer focus ($\beta = .114$, $p < .05$) and SD ($\beta = .121$, $p < .05$) are positively and significantly correlated with firm type. The outcomes reveal that firm type reflecting the freestanding or dependent may focus on customer-centric decision-making. Likewise, the outcomes of this empirical research show that the type of the firm is associated with how a corporation ties people and communication along with physical and digital interactions with favorable differentiated customer experiences. Due to the complex nature of the conceptual framework using a combination of formative and reflective constructs and a relatively small

sample size, an empirical validation with PLS-SEM was performed in this paper to analyze the relationships between latent variables which act as constructs assessed by the indicators (cf. Haenlein and Kaplan, 2004; Hair et al., 2019). Contrary to covariance-based SEM, the PLS-SEM approach involves confirmatory research to test the causal relationships among variables or constructs by maximizing the explained variance of the dependent variable (SCA and firm performance) explained by the independent variables (entrepreneurial strategy, SIN exploration, and SIN exploitation) instead of replicating the empirical covariance matrix (cf. Wong, 2013) and calculating the model fit indices (cf. Hair et al., 2019).

To estimate the causal model, a two-step PLS-SEM process is grounded on *measurement model assessment*, followed by the *structural model assessment* to ensure the reliability and validity of the proxy measurements (cf. Hair et al., 2019).

3.1. Measurement model assessment

Measurement model assessment in this study is divided into a combination of reflective and formative measurement model assessment. This study has four constructs (i.e., entrepreneurial strategy, customer focus, SCA, and slack resources) measured using reflective indicators and four constructs (i.e., SIN exploration, SIN exploitation, SD, and corporate performance) measured using formative indicators.

3.2. Reflective assessment

The PLS measurement model was evaluated using the PLS algorithm and convergent validity, including loadings, average variance extracted (AVE), and composite reliability (CR). The PLS algorithm is employed to examine the reliability and validity of the constructs. Table 2 demonstrates the loadings of scale items are greater than the recommended value of 0.5. The CR values are also greater than the recommended value of 0.7 (cf. Hair et al., 2016) for all four reflective constructs. Additionally, all of the AVE values for all constructs were higher than the suggested values of 0.50 (cf. Hair et al., 2016). The reliability of the constructs was considered by performing the values of Cronbach's alpha (α), and the minimum threshold level of Cronbach's alpha (α) was 0.7. Reliability higher than 0.80 is considered good, 0.70 is acceptable, and less than 0.60 is reflected as poor (Hair et al., 2010). The Cronbach's alpha (α) estimates for four variables were higher than 0.70, which was acceptable. Additionally, AVE has achieved 0.5, considered the minimum threshold level (Table 2).

Moreover, discriminant validity is essential before proceeding with the structural model. Discriminant validity designates the degree to which a variable is essentially distinct from other variables (cf. Fornell & Larcker, 1981). The Heterotrait-Monotrait Ratio (HTMT), an advanced criterion to evaluate the discriminant validity, was employed to measure the discriminant validity of the constructs (Hair et al., 2010). In support of reasonable discriminant validity for all constructs, Table 3 reports that all the values were less than .90 (Gold et al., 2001).

3.3. Formative assessment

While there are no established assessments to evaluate the discriminant validity for formative constructs, some scholars suggested that it is necessary to test for multicollinearity along with examining weights, loadings, and significance levels of indicators (Benitez et al., 2018). A redundancy investigation was executed to estimate the convergent validity. For the convergent validity assessment, the path coefficient was recommended to be higher than 0.7 combined with a p-value < 0.05 or t-value > 1.96. The redundancy analysis results identified that the path coefficient was higher than 0.7, p-value < 0.05 and a t-value > 1.96. According to the indicator multicollinearity, formative constructs undertake items within a construct that should neither be highly correlated nor be substitutable (cf. Hair and Alamer, 2022). The recommended

Table 2
Convergent Validity.

Constructs/ Items	Loadings	Alpha	CR	AVE
Customer Focus		.917	.938	.751
CF1. We prioritize customer responses above all else.	.885			
CF2. We offer customers the opportunity to participate in the development of service design concepts.	.904			
CF3. We constantly analyze the needs of our customers.	.868			
CF4. Sometimes, we reorganize the system to better understand the needs of our customers.	.885			
CF5. Our organization accurately recognizes the needs of customers expressed in the course of service development.	.786			
Entrepreneurial Strategy		.869	.899	.562
ES1: We believe that wide-ranging acts are necessary to achieve our objectives	.670			
ES2: We initiate actions to which other organizations respond.	.669			
ES3: We are fast to introduce new products and services to the marketplace	.793			
ES4: We have a strong proclivity for high risk projects	.815			
ES5: We are bold in our efforts to maximize the probability of exploiting opportunities.	.753			
ES6: We encourage people to think and behave in original and novel ways.	.730			
ES7: We are willing to try new ways of doing things and seek unusual, novel solutions.	.801			
Sustained Competitive Advantage		.892	.925	.755
SCA1: The innovations we introduced enabled us to enjoy a superior market position for a reasonable period.	.867			
SCA2: The new changes we introduced have been appreciated by our clients/ customers giving us a distinct advantage for some time now.	.861			
SCA3: Our competitors could not easily match the advantages of the new products or services that we introduced.	.885			
SCA4: The new products or services we introduced were a stepping stone for further development.	.863			
Slack Resources		.879	.917	.733
SLACK1. Our organization has additional financial and other resources that can be applied to the development of service design.	.828			
SLACK2. It is not difficult for our organization to obtain the necessary financial and other resources in a short period to support the development of service design.	.862			
SLACK3. Our organization has various ways to apply important financial and other resources to support the development of service design.	.875			
SLACK4. Our organization's financial and other resources may be properly allocated to the various procedures of service design development.	.859			

measure of indicator multicollinearity is the variance inflation factor (VIF), which is shared of tolerance. A VIF value of five or greater demonstrates serious collinearity problems among the predictor constructs (Hair & Sarstedt, 2019). The VIF values for all the indicators of SIN exploration are shown in Table 4, which are less than 5 (VIF < 5). Moreover, we performed the significance of the indicator weights. Weights are typically statistically significant at $p \leq .05$ or $t\text{-value} > 1.96$. The significance of the indicator weights for SIN exploration is given in Table 4. Two indicators were found with $p \leq .05$ or $t\text{-value} > 1.96$. However, two indicators found $p > .05$ or $t\text{-value} < 1.96$. Since the two

Table 3
Discriminant Validity (HTMT_{0.9}).

	Customer Focus	Entrepreneurial Strategy	Slack Resources	Sustained Competitive Advantage
Customer Focus				
Entrepreneurial Strategy	.70			
Slack Resources	.85	.68		
Sustained Competitive Advantage	.78	.72	.77	

indicators have $p > .05$ or $t\text{-value} < 1.96$, therefore, the indicator loadings were considered. The loadings of these items were found statistically significant and $\geq .50$ in magnitude; this analytically explains retaining the items. Furthermore, the current study conducted redundancy analysis for other formative constructs: SIN exploitation, SD, and corporate performance. All the aforementioned steps were followed to justify the convergent validity of all these constructs. Results are shown in Table 4. For these three formative constructs, all the indicators were retained. Although few indicators were found insignificant, the loadings were higher than 0.5. Additionally, for all indicators, the VIF values were found to be less than 0.5, and the path coefficient was higher than 0.7.

3.4. Hypothesis testing

The PLS structural model assessment was carried out after the assessment of the measurement model. The significance of the framework was estimated and grounded on multiple methods such as path coefficients, t -values, and standard errors. The developed hypotheses were examined for the main and moderation effects using the bootstrapping procedure in Smart PLS 3, one of the recommended steps to investigate the connection between variables (Ringle et al., 2012).

As reported in Table 5, ENST had a significant and positive influence on SIN exploration ($\beta = .452$, $t\text{-value} = 6.162$; LL = .296, UL = .59) and SIN exploitation ($\beta = .493$, $t = 7.82$; LL = .375, UL = .618), supporting H_{1a} and H_{1b} respectively. While the findings demonstrate no support for H_2 ($\beta = .131$, $t = 1.54$; LL = $-.3$, UL = .292), we found that SIN exploitation had a positive and significant influence on SD ($\beta = .209$, $t = 2.258$; LL = .019, UL = .395) supporting H_3 . Table 5 demonstrates a significant positive relationship between SCA ($\beta = .429$, $t = 7.212$; LL = .313, UL = .551) and corporate performance ($\beta = .291$, $t = 3.864$, LL = .149, UL = .439) and SD. These results are consistent with H_{4a} and H_{4b} , which are thus supported. In support of H_5 , a significant direct influence of SCA on corporate performance was found ($\beta = .442$, $t = 6.158$; LL = .289, UL = .577). As reported in Table 5, slack resources had a significant and positive relationship with SIN exploration ($\beta = .18$, $t\text{-value} = 2.339$; LL = .037, UL = .325) supporting H_{6a} . The results also indicate that slack resources had a significant and positive relationship with SIN exploitation ($\beta = .304$, $t = 4.578$; LL = .173, UL = .428), which supported H_{6b} . Moreover, a significant direct impact of customer focus on SD was found ($\beta = .318$, $t = 4.544$, LL = .186, UL = .459), supporting H_7 . The empirical data show that slack resources have a significant but negative impact on the interaction of ENST and SIN exploration ($\beta = -.076$, $t = 2.029$; LL = $-.148$, UL = $-.005$). Thus, H_{8a} was partially supported, indicating the moderating effect of slack resources weakens the relationship between ENST and SIN exploration.

However, the results highlight that slack resources have an insignificant negative impact on the interaction of ENST and SIN exploration ($\beta = -.03$, $t = .108$, LL = $-.065$, UL = .052). Consequently, H_{8b} was not supported. Moreover, the moderation impact of customer focus on the interaction between SIN exploration and SD was found insignificant ($\beta = .048$, $t = .586$; LL = $-.103$, UL = .221). Hence, H_9 was not supported. Similarly, the results demonstrate an insignificant moderating effect of

Table 4
Measurement Model (Formative Indicators).

Constructs/ Items	VIF	Weights	t-value	Loadings	Items deleted
Service Innovation	1.548	.364	2.189	.796	None
Exploration					
EXPLOR1: Introducing new generation of services.	2.828	.132	0.588	.825	
EXPLOR2: Extending service range.	2.264	.437	2.006	.897	
EXPLOR3: Opening up new markets.	2.495	.257	1.260	.815	
EXPLOR4: Entering new technology fields.	2.439	.075	0.508	.776	
Service Innovation					
Exploitation					
EXPLOIT1: Improving existing service quality.	2.439	.075	0.508	.776	None
EXPLOIT2: Improving service flexibility.	2.407	.728	5.268	.970	
EXPLOIT3: Reducing service cost.	2.264	.033	0.187	.739	
EXPLOIT4: Improving yield or reducing material consumption.	2.014	.266	1.849	.792	
Service Design					
SD1: We aim to develop a clear value proposition of the service.	1.255	.063	0.348	.501	Two
SD2: We aim to design the service to ensure that it delivers the promised value proposition.	1.889	.469	1.404	.751	
SD3: We aim to integrate state-of-the-art technologies into the service design.	1.722	.256	2.686	.869	
SD4: We aim to use new technology for the design and service process.	1.069	.056	0.384	.551	
SD5: We aim to improve service design and customer service process continuously.	1.750	.475	2.686	.869	
Corporate Performance:					
Over the last three years					
BP1. Profit goals have been achieved.	1.641	.264	2.128	.758	None
BP2. Sales goals have been achieved.	2.363	.295	2.085	.861	
BP3. Return –on– investment goals have been achieved.	2.601	.056	0.354	.804	
BP4. Market share goals have been achieved.	2.496	.304	1.932	.868	
BP5. Our customer retention level is higher than that of our competitors.	2.682	.272	1.653	.869	

Note: EXPLOR = Service Innovation Exploration; EXPLOIT = Service Innovation Exploitation; SD = Service Design; BP = Corporate Performance

customer focus on the relationship between SIN exploitation and SD ($\beta = -.025$, $t = .312$; LL = $-.177$, UL = .131). Therefore, H_{10} was not supported.

Moreover, $r\text{-square} (R^2)$ was performed to measure the variance explained in the endogenous latent variable due to the exogenous latent variables. As Table 5 shows, corporate performance has an R^2 value of 0.391, indicating 39.1%, which shows the variance explained by the antecedent constructs. In the current study, the level of variance explained by the suggested model is moderate. Chin (1998) notes that while R^2 value of 0.60 is considered substantial, 0.33 and 0.19 are

Table 5
Research Model Effect Coefficients.

	Model	β	Mean	SD	T Statistics	P Values	LL	UL	R ²	f ²	Q ²	Decision
H _{1a}	ENST → SINExplor	.452	.453	.073	6.162	0	.296	.59	.39	.230	.261	Supported
H _{1b}	ENST → SINExploit	.493	.498	.063	7.82	0	.375	.618	.518	.325	.359	Supported
H ₂	SINExplor → SD	.131	.133	.085	1.54	.124	-.03	.292		.008		Not Supported
H ₃	SINExploit → SD	.209	.217	.093	2.258	.024	.019	.395		.024		Supported
H _{4a}	SD → SCA	.429	.437	.06	7.212	0	.313	.551	.184	.226	.130	Supported
H _{4b}	SD → Performance	.291	.294	.075	3.864	0	.149	.439	.391	.114	.205	Supported
H ₅	SCA → Performance	.442	.442	.072	6.158	0	.289	.577		.262		Supported
H _{6a}	SR → SINExplor	.18	.185	.077	2.339	.02	.037	.325		.051		Supported
H _{6b}	SR → SINExploit	.304	.301	.066	4.578	0	.173	.428		.124		Supported
H ₇	CF → SD	.318	.318	.07	4.544	0	.186	.459	.316	.081	.138	Supported
H _{8a}	ES * SR → SINExplor	-.076	-.076	.037	2.029	.043	-.148	-.005				Supported
H _{8b}	ES * SR → SINExploit	-.003	-.006	.03	1.08	.914	-.065	.052				Not Supported
H ₉	SINExplor * CF → SD	.048	.057	.082	.586	.558	-.103	.221				Not Supported
H ₁₀	SINExploit * CF → SD	-.025	-.03	.08	.312	.755	-.177	.131				Not Supported

Note: ENST=Entrepreneurial Strategy, SINExplor=Service Innovation Exploration, SINExploit= Service Innovation Exploitation, SD=Service Design, SR= Slack Resources, CF= Customer Focus

regarded as moderate and weak, respectively. Additionally, the relative impact of a definite exogenous latent variable on an endogenous latent variable is measured by using effect size (f^2) values reported in Table 5. Cohen (1988) suggested that while 0.02 is considered a small f^2 , 0.15 and 0.35 are considered moderate f^2 and strong f^2 , respectively. In the current study, none of the f^2 was strong. Most of the f^2 values are small and moderate. In addition, the Stone-Geisser test of predictive relevance (Q^2) is useful as an additional measurement of goodness-of-fit (Duarte et al., 2010). Cohen (1988) noted that “ Q^2 denotes a measure of how well observed values are reconstructed by the framework and its parameter estimates.” Values of Q^2 greater than zero in the current study indicated that the model has predictive relevance (Ruiz et al., 2010). The values of Q^2 are reported in Table 5.

Fig. 2 illustrates the moderating effect of slack resources on the relationship between ENST and SIN exploration. The difference in ENST and SIN exploration depends on the low and high levels of slack resources. The results indicate that the moderating effect of slack resources weakens the connection between entrepreneurial strategy and SIN exploration.

4. Discussion and implications

4.1. Discussion of findings

Combining the DCV and organizational ambidexterity theory, the primary intention of this research paper was to develop a cohesive conceptual model to expand our understanding of how ENST fosters the performance of T&H firms by managing SIN exploration-exploitation ambidexterity. In this attempt, we identified that SIN functions as a DC enabling T&H firms to serve their customers better by fostering innovation yet simultaneously at the same time achieving operational

efficiency. Our findings align with Lütjen et al. (2019), who have recently combined the DCV with an ecosystem perspective to examine how value-adding business ecosystems contribute to SInS. Further, most importantly, we identified that SIN and SD are two related vital constructs that work sequentially, allowing T&H firms to achieve sustainable competitive advantage and enhancing performances in the long run. However, the studies bridging SIN and SD are still in their infancy in the T&H literature (Gustafsson et al., 2020). In this sense, we could contribute to the T&H literature by delineating the interwoven linkage between SIN and SD.

The findings further reveal that SIN exploration and SIN exploitation have differential effects on SCA and the corporate performance of T&H firms. SIN exploitation is significantly related to SCA and the corporate performance of T&H firms, whereas SIN exploration is not. This implies that the link between ENST and the performance of T&H firms is mediated by SIN exploitation, SD, and SCA. Our findings support previous research that shows the positive effect of SIN exploitation on enhanced firm performance (Bustinza et al., 2020; Tsai & Wang, 2017). However, as Clauss and Kailer (2021) emphasized, our findings did not reveal a positive effect of SIN exploration on SCA and the corporate performance of T&H firms. This might be explained as most T&H firms in Japan experience a lack of internal innovations due to the conformist nature of Japanese society today.

Following a similar line of thinking as Bao et al. (2020) and Sun et al. (2020), we also found that the availability of slack resources within T&H firms fosters SIN exploration and SIN exploitation. However, surprisingly, it was also revealed that slack resources weaken the relationship between ENST and SIN exploration. One reason could be T&H firm’s adaptive response to the recent unprecedented economic crisis, the most severe since World War II (Allain-Dupre, 2020). During the recent outbreak of COVID-19, T&H firms have learned to benefit from slack resources along with the safety cushion of economies of scale to focus more on SIN exploitation (Memili et al., 2023) by deploying the various slack combined with available resources for incremental improvement to existing services to survive rather than proclivity for SIN exploration. Furthermore, T&H firms are considered to take a low-risk stance when slack resources are available (Tajeddini et al., 2020), which may be observed as a missed competitive opportunity with potential ramifications on the firm’s competitive advantage (Shijaku et al., 2023). A helpful direction toward a better understanding of the nuances of this intriguing result would be a thorough and meticulous examination of the underlying theoretical mechanisms combined with richer data from qualitative methods (Shijaku et al., 2023) to reveal the story behind the numbers (Tajeddini and Mueller, 2012). We also further uncovered that being customer-focused when conceptualizing and designing SInS is critical for a T&H firm to achieve an SCA.

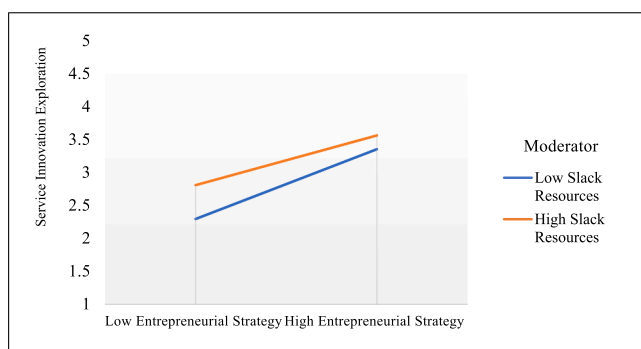


Fig. 2. The moderation effect of slack resources on the relationship between ENST and SEI exploration.

4.2. Theoretical implications

This paper makes noteworthy contributions to extant T&H management literature. First, drawing on the DCV and organizational ambidexterity theory, this paper is one of the first attempts to thoroughly study how ENST fosters the performance of T&H firms by managing SIN exploration-exploitation ambidexterity and SD, ultimately creating an SCA. In our attempt, we uncovered the potential of the organizational ambidexterity theory as a complementary theoretical framework to the DCV that can be used to explain how T&H firms can foster SINS to enhance their performances. By doing so, we respond to Köseoglu et al. (2019) calling for future research investigating the potentiality of merging the DCV with other relevant theoretical frameworks proposed in strategic management literature to enhance its robustness.

Second, following March (1991), this paper proposes a refined conceptualization of SIN as SIN exploration and SIN exploitation and their effects on SD and creating SCA while enhancing the performance of T&H firms. By doing so, we extend the organizational ambidexterity theory into the T&H management literature, emphasizing that T&H firms can achieve SCA and enhanced long-term performances by pursuing a delicate balance of SIN exploration-exploitation ambidexterity. This refined conceptualization responds to scholars (e.g., Kitsios and Kamariotou, 2021; Vo Thanh et al., 2020) calling for a theoretical framework to capture the full spectrum of the innovation potential of a T&H firm. Third, in this paper, we proposed SD as a mediator, arguing that managing SIN requires continuously designing and redesigning existing and new service offerings to cope with frequent alterations and emerging opportunities in modern markets. As such, our study could address Hameed et al.'s (2021) call for studies linking SD and SIN that remain largely unexplored in T&H management literature.

4.3. Managerial implications

From a more practical viewpoint, our findings have important implications for managers of T&H firms. First, by revealing that ENST triggers a T&H firm's decision to pursue a delicate balance of SIN exploitation and exploration, this paper emphasizes that managers must consider expenditures related to pursuing SINS as capital investments rather than operational costs. As revealed, innovative SDs allow service firms to create SCA in the long run, enhancing their corporate performances.

Second, managers must assess and address the resource trade-offs and conflicts within T&H firms in pursuing SIN exploration-exploitation ambidexterity. For instance, too much emphasis on exploratory innovation may divert managerial efforts and resources away from exploitative innovation activities. Since modern markets demand T&H firms to respond swiftly to market changes brought on by competition by pursuing SINS to stay competitive, T&H firms are always expected to have enough slack resources in stock to be easily utilized for future initiatives. Therefore, it is suggested that managers of T&H firms only disperse a portion of the profit they have made. At the same time, it should allocate a sufficient amount of its earnings to acquire slack resources to use in the future.

Finally, to reap the maximum benefits of SINS in enhancing the performance of service firms, managers are advised to be customer-centric in formulating entrepreneurial strategies and conducting corporate operations. Customer-focused entrepreneurial strategies allow service firms to foster innovative SDs, thus achieving an SCA and enhanced performance in the long run.

5. Conclusion

Based on the DCV and the organizational ambidexterity theory, this paper develops and empirically tests a conceptual model delineating the interrelationships between entrepreneurial strategy, SIN ambidexterity,

and SD in enhancing the performance of T&H firms. Data drawn from 303 T&H firms in Japan reveal that ENST fosters SIN exploitation and exploration within service firms. In contrast, SIN exploitation helps T&H firms design unique service offerings, yielding an SCA and superior corporate performance. However, it was further revealed that although the availability of slack resources within T&H firms fosters SIN exploration and SIN exploitation, at the same time, slack resources weaken the relationship between ENST and SIN exploration. As a concluding remark, our study initiates a novel line of inquiry that integrates SIN and SD notions with emerging concepts in the strategic management research domain, such as entrepreneurial strategy, into the T&H context.

5.1. Limitations

Some limitations hold pertinence to the findings of this paper. First, because of the difficulty of collecting archival objective data to evaluate the performance of T&H firms due to confidentiality reasons necessitated relying on previously validated self-reported measures to assess firm performance. Future researchers might consider using secondary data collected from firm archival files to operationalize variables with objective measures to validate this study's results. Such a data triangulation approach will provide novel insights into how ENST is anticipated to positively influence the corporate performance of T&H firms via SIN ambidexterity, SD, and SCA. Future studies can further enhance the robustness of the findings by conducting longitudinal studies to identify the dynamic process through which ENST allows T&H firms to improve their performances. Third, apart from SIN, we can apply organizational ambidexterity theory to different concepts identified in this paper. For instance, in future research, scholars can test the proposed framework by examining corporate performance using the ambidexterity view, such as market growth (market exploration) and market efficiency (market exploitation), to see whether the proposed relationships hold. Fourth, future research should focus on the context-sensitivity of the proposed conceptual framework, as its applications can vary depending on the size of the T&H firms and the countries within which they operate. Finally, future scholars can consider conducting this study adopting a qualitative research design as it enables the identification of the exact nature of the interplay between ENST, SIN, SD, SCA, and corporate performance of T&H firms beyond the numerical values.

CRedit authorship contribution statement

Thilini Chathurika Gamage: Investigation, Resources, Writing – original draft, Writing – review & editing. **Waseem Ul Hameed:** Data curation, Formal analysis, Methodology, Software. **Kayhan Tajeddini:** Conceptualization, Formal analysis, Funding acquisition, Methodology, Resources, Supervision, Writing – original draft. **Omid Tajeddini:** Conceptualization, Data curation, Methodology, Resources, Validation, Writing – original draft. **Javad Tajdini:** Conceptualization, Formal analysis, Investigation, Validation, Writing – original draft.

Conflict of interest

My colleagues, and I as the authors of this paper declare that we have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. We hereby declare that the disclosed information is correct and that no other situation of real, potential or apparent conflict of interest is known to us. I undertake to inform you of any change in these circumstances, including if an issue arises during the course of the meeting or work itself.

Declaration of Competing Interest

The authors declare that they have no known competing financial

interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

Appendix A

Customer Focus

- CF1. We prioritize customer responses above all else.
- CF2. We offer customers the opportunity to participate in the development of service design concepts.
- CF3. We constantly analyze the needs of our customers.
- CF4. Sometimes, we reorganize the system to better understand the needs of our customers.
- CF5. Our organization accurately recognizes the needs of customers expressed in the course of service development.

Entrepreneurial Strategy

- ES1: We believe that wide-ranging acts are necessary to achieve our objectives
- ES2: We initiate actions to which other organizations respond.
- ES3: We are fast to introduce new products and services to the marketplace
- ES4: We have a strong proclivity for high risk projects
- ES5: We are bold in our efforts to maximize the probability of exploiting opportunities.
- ES6: We encourage people to think and behave in original and novel ways.
- ES7: We are willing to try new ways of doing things and seek unusual, novel solutions.

Sustained Competitive Advantage

- SCA1: The innovations we introduced enabled us to enjoy a superior market position for a reasonable period.
- SCA2: The new changes we introduced have been appreciated by our clients/ customers giving us a distinct advantage for some time now.
- SCA3: Our competitors could not easily match the advantages of the new products or services that we introduced.
- SCA4: The new products or services we introduced were a stepping stone for further development.

Slack Resources

- SLACK1. Our organization has additional financial and other resources that can be applied to the development of service design.
- SLACK2. It is not difficult for our organization to obtain the necessary financial and other resources in a short period to support the development of service design.
- SLACK3. Our organization has various ways to apply important financial and other resources to support the development of service design.
- SLACK4. Our organization's financial and other resources may be properly allocated to the various procedures of service design development.

Service Innovation Exploration

- EXPLOR1: Introducing new generation of services.
- EXPLOR2: Extending service range.
- EXPLOR3: Opening up new markets.
- EXPLOR4: Entering new technology fields.

Service Innovation Exploitation

- EXPLOIT1: Improving existing service quality.
- EXPLOIT2: Improving service flexibility.
- EXPLOIT3: Reducing service cost.
- EXPLOIT4: Improving yield or reducing material consumption.

Service Design

- SD1: We aim to develop a clear value proposition of the service.
 - SD2: We aim to design the service to ensure that it delivers the promised value proposition.
 - SD3: We aim to integrate state-of-the-art technologies into the service design.
 - SD4: We aim to use new technology for the design and service process.
 - SD5: We aim to improve service design and customer service process continuously.
- Corporate Performance:** Over the last three years

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- BP1. Profit goals have been achieved.
 BP2. Sales goals have been achieved.
 BP3. Return –on-investment goals have been achieved.
 BP4. Market share goals have been achieved.
 BP5. Our customer retention level is higher than that of our competitors.

Appendix B

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

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

where:

r_{ij} = the pre-adjustment correlation between constructs i and j ;

r_m = the MV adjustment

r_{jm} = the adjusted correlation; and

$t_{\alpha/2, N-3}$ = the t-value of the adjusted correlation.

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