Research Paper

Enhancing hospitality business performance: The role of entrepreneurial orientation and networking ties in a dynamic environment

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ABSTRACT

Utilizing a sample of 192 hospitality firms, this study investigates the moderating role of a dynamic environment, coupled with business and social networking ties and technology resources, on the relationship between entrepreneurial orientation and organizational performance in hospitality firms. This research is novel in that we adopt business network ties and social network ties as two moderating variables along with technology resources between entrepreneurial orientation and business performance, providing evidence on a topic which has received little attention to date. The results posit that in an uncertain, dynamic environment a higher level of risk and entrepreneurial orientation benefit business performance especially when coupled with strong business and social networks.

1. Introduction

Traditionally the performance of hospitality organizations has been studied from the point of destination brand/reputation (e.g., image, perceived service quality, price) (e.g., Gomez et al., 2013), attractions (e.g., adventure, architecture, natural resources and endowments) (e.g., Alhemoud and Armstrong, 1996; Mussalam and Tajeddini, 2016), infrastructure (e.g., efficiency of transportation, shopping, sports facilities) (Molina-Azorin et al., 2010), and services (e.g., quality and variety of accommodation, food and wine) (e.g., Henderson, 2011; Roxas and Chadee, 2013). However, recently a number of hospitality scholars (Fu et al., 2019; Moghaddam et al., 2018; Omerzel, 2016; Taheri et al., 2019; Vega-Vázquez et al., 2016) have seen entrepreneurship and innovation as having a critical role in shaping this global industry and have advocated for further research. Entrepreneurial activities have been examined as an antecedent of growth, competitive advantage and superior performance. Despite the rising interest in entrepreneurial activities, the contemporary hospitality literature proposes that the field is lacking of strong theoretical frameworks related to this essential entrepreneurial orientation (EO) (Fadda, 2018; Hernández-Perlines, 2016; Tajeddini, 2015).

Moreover, the current uncertain and highly competitive marketplace leads hospitality firms to face various economic, financial and sociocultural problems to deliver superior value to customers (O'Cass and Sok, 2015). Indeed, research indicates that hospitality firms have encountered greater levels of risk and competition than other industries

(Kwun and Oh, 2004) due to the crowded and homogeneous marketplace (Morgan et al., 2014), low entry and high exit barriers (Lee et al., 2016) and price conscious customers (Singal, 2015). In response hospitality firms have learnt to embrace an entrepreneurial spirit and introduce new products or services (Anderson et al., 2015; Lee et al., 2016) moving towards a more decentralized and organic organizational structures (Tajeddini et al., 2017).

The inherent multi-experiential nature of hospitality firms require an entrepreneurial mindset to seek, and capture, the opportunities to offer unique experiences (e.g., new services, new package holidays) to travelers *de factor* global in scope, hospitality is one of the main economics antecedents of a great number of nations (French et al., 2017) and entail a multitude of services, facilities and attractions that create many entrepreneurial opportunities (Fadda, 2018). Nevertheless, research about how these organizations utilize entrepreneurial capabilities and competencies to engage in and benefit from EO remains under developed (Omerzel, 2016; Roxas and Chadee, 2013). In particular, Tajeddini (2010) argues that research capturing EO in the field is largely phenomenological and underrepresented. Subsequently, this is a contradiction in the hospitality field; on the one hand, the EO of these businesses is taken for granted, while on the other hand, empirical research that exploring EO in hospitality firms is lacking (Taheri et al., 2019; Vega-Vázquez et al., 2016).

The heightened dynamic environment (Achrol, 1991) calls for co-operation, partnership and strategic alliances (Jiang et al., 2016). Resource sharing to create value (Jiang et al., 2016) and the formation of

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partnerships to promote innovation and enhance financial return are emerging (Xie et al., 2010) as can be seen with formalized overbooking collaborations. This bond of mutual trust with business partners and stakeholders is essential for the sustainable success and development of hospitality businesses. Cooperative entrepreneurial firms' relationships develop over time wherein mutual trust and commitment are established between partners (Adjei et al., 2009). It becomes more evident in the hospitality industry where a sizable number of firms are micro, geographically fragmented and interdependent in nature, thus with constrained resources under uncertainties (Ying et al., 2016). The cooperation between these firms can reinforce decision quality, overcome impasse, strengthen bonds between stakeholders and offer a platform for developing formal and informal inter-organizational collaboration and partnerships, thereby they are characterized as a networked system (Adongo and Kim, 2018; Gao et al., 2017; Ying et al., 2016). The nature of service business demands that organizations interact with their consumers and company partners utilizing cooperative networks to deliver safe, reliable, and professional services at the highest possible value across international borders (Kandampully, 2002; O'Cass & Sok, 2015). Lechner et al. (2006) stress that networks in the service industry are predominantly vital for the expansion and accomplishment of innovative organizations and supply a noteworthy source of sustainable competitive advantage.

The arrival of emergent players in the lodging services has put even more pressure on the tourism and travel industry (Priporas et al., 2017). This industry is rapidly changing. Such dynamic and uncertain environments require hospitality firms to strengthen their abilities to be innovative, proactive and risk taking (Priporas et al., 2017). While previous studies (e.g., Boso et al., 2013; Hoang and Yi, 2015; Jiang et al., 2018) have all stressed the need for more empirical research in comprehending the relationship between EO and networking in today's volatile environment, this is even more important.

Continuing proliferation of technology and communication, and the ongoing emergence of new players in the market promise a more dynamic competitive environment (Achrol, 1991). Hospitality firms are globalized through technology and communication. In today's digital era, entrepreneurial hospitality businesses have widely employed automated modern information technology and communication systems to promote for security (cyber-crimes) (Bharwani and Mathews, 2012), free exchange of ideas, data and best practices (Yeniyurt et al., 2005), better education and skills development (Azadegan et al., 2019, 2020) and faster and easier business contacts without business trips (Holjevac, 2003).

Determining the factors to enhance business performance is fundamental particularly exploring the role the dynamic environment plays on the outcomes of expecting high performing behaviors (Rashidirad et al., 2013). What impact does networking have on the relationship between entrepreneurial strategy-making and firms' outcome? Do firms need strong ties to other organizations, and social networks?

This research scrutinizes the moderating role of the dynamic environment and network ties on the relationship between entrepreneurial strategy-making, long term growth and short term financial return. The paper aims to bring together these previously researched areas to explore the relationship between the component parts. In doing so highlighting when these factors have most impact on the hospitality industry. We do so due to the divergent views currently existing on the relationship with EO and a firm's performance. Previous work ranges from positive (Covin and Miller, 2014; Lomberg et al., 2016) to insignificant (Covin and Slevin, 1989; George et al., 2001) and thus comprehending and understanding the complexity of EO is pertinent.

This paper proposes that in a dynamic environment the level of networking hospitality businesses undertake is an important component to EO and long and short term business performance. The work goes further as it also explores the relationship and influence of both business and social networks, empirically studying different combinations of high/low business and social network ties and the interplay of these network ties and the dynamic environment. The findings support hospitality managers in taking greater risks in dynamic environments and leveraging networks to realize enhanced performance. For this study, we define and measure business "performance" in two respects: growth and financial return. Utilizing data gathered from 192 Japanese hospitality firms, this research offers and examines plausible assumptions concerning the interactive impacts of EO, dynamic environment and networking on service company growth and financial return.

2. Theory and hypothesis development

2.1. Entrepreneurial strategy-making

Entrepreneurial orientation, often referred to as entrepreneurial strategy-making, has been characterized as an attribute of management style that favors change and supports activities related to exploiting different forms of innovation, new product/service development and the creation of superior customer value (Tajeddini and Trueman, 2016). When embedded within strategic decision-making, EO plays an important role in firms' developing, commercializing and aggressively pursuing new products and service development and anticipating and responding to contingencies (Hernández-Perlines, 2016; Rauch et al., 2009). EO is underpinned by distinct strategic orientation which collectively enhances business outcomes by creating new knowledge required for establishing new capabilities and re-energizing existing resources and capabilities, fostering an innovative mindset within the firm under differing turbulent and competitive environments (Cavusgil and Knight, 2015; Jalilvand et al., 2018; Martin and Javalgi, 2016; Taheri et al., 2019). Arguably, a business with a strong EO focuses on gaining a superior performance by building a value-creating strategy which other competitors are unable to duplicate the benefits, or find it too costly to imitate. Therefore, entrepreneurship represents an organizational strategic orientation by foregoing profits in the short term and investing in higher risk opportunities for longer-run benefits and value creation. As a result, such firms proactively produce novel and innovative products or services, creatively outperforming rivals (Hernández-Perlines, 2016; Martin and Javalgi, 2016; Miller, 1983) and earning an above industry-average compensation (entrepreneurial surplus) (Mishra, 2017). Conversely, more risk-averse businesses appear more likely to pursue an incremental process putting greater emphasis on short-term success and financial gains determined by profitability and productivity. These non-entrepreneurial organizations prefer to imitate products and services rather than innovating themselves. Their risk aversion is high and more likely they are market followers rather than leaders.

The relationship between a firm's performance and EO has been well established in a variety of fields such as banking (e.g., Niemand et al., 2017), international businesses (e.g., Balabanis and Katsikea, 2003), travel agency (Taheri et al., 2019) and hospitality (Hernández-Perlines, 2016; Tajeddini, 2014, 2015). All of these studies indicate that EO plays a positive role in an organization's overall performance. Nevertheless, Lumpkin and Dess (1996) argue EO should be regarded as a context-specific. More recently Fu et al. (2019) stress that EO should be investigated and analyzed in different settings due to the variances in industry characteristics such as life cycle and dynamism.

Scholars have stressed the idiosyncratic nature of hospitality offerings and internationalization strategies which require particular industry-based attention (Dorado and Ventresca, 2013; Fu et al., 2019). The hospitality industry differs from the other industries where they focus more on lifestyle, personality, and culture (Liu and Mattila, 2017). Often hospitality firms are regarded as archetypal entrepreneurial industries (Morrison et al., 2004) embracing qualities such as risk-tolerance, resource mobilization competences (Narangajavana et al., 2017), innovativeness and proactiveness

(Demary, 2017), economic growth (Webster and Ivanov, 2014), job creation, change, development and innovation (Ball, 2005); new venture creation (Andringa et al., 2016). Hospitality businesses are not protected by tradition, destinations are not able to stay still as demand for new experiences and repeat visits continually pushes for new experiences and continued drive to develop product and services. Entrepreneurial activities may foster a firm's innovative capability with a consequential impact on financial return and business outcomes (Hallak et al., 2013; Schuckert et al., 2015).

Previous studies have indeed shown that higher levels of EO are positively associated with improved hospitality and tourism firm performance (e.g., Roxas and Chadee, 2013). In practice, the opportunity for hospitality service companies to take financial risks and proactively deploy resources to new opportunities can vary widely (De Clercq et al., 2010; Taheri et al., 2019). This study posits that EO has a positive impact on hospitality and tourism organizations' performance in terms of long-term growth and short term financial return. Hence, this research expects that:

H1. The positive impact of EO on hospitality business performance increases with the degree of (a) growth and (b) financial return.

2.2. Dynamic environments

Dynamism of the environment can be conceptualized as the rate of change and the magnitude of unpredictability, e.g. alteration in technologies, variations in consumer preferences and market demands (Tajeddini and Mueller, 2019). The impact of firm's resources, capabilities and competencies on a firm's behavior and operations are reliant on these environmental dynamism cues (Koberg et al., 1996). As competition increases and customer preferences change, a faster pace evolves and the environment becomes more dynamic. As a result, the development stage from product introduction to withdrawal becomes shorter. The introduction of new tangible and intangible goods is more frequent, information becomes outdated quicker (Tajeddini and Mueller, 2019). Thus, it is more complicated and difficult for firms to assimilate and predict environmental conditions, to discover the possible effects of innovative technological changes on consumer needs and behavior, and to explain them into specific and relevant activities (Kabadayi et al., 2007). For example, the arrival of Airbnb, a fast-paced business gradually disrupting the hospitality industry and creating a dynamic and competitive new operating environment. Such competitive pressure coupled with fluctuating tourism demand and low levels of service differentiation among lodging industry has created an intensification of pressure on management to devise novel approaches for beating rivals (Priporas et al., 2017).

Organizations effectively operating in a dynamic setting are more prone to succeed where the expenditure and level of risk related to innovation, can be retained by capturing new market niches (Koberg et al., 1996). In such an environment, companies are required to monitor marketing practices, leverage their relationship quality with customers, and undertake high levels of service/product innovation augmentation. This stimulates substantial tangible and intangible investments in innovation-related activities to improve existing products, or develop new products (Adjei et al., 2009; Nandakumar et al., 2010). Uncertainty is high about competitive products, market requirements shifts quickly and new product development is a more complex (Hult et al., 2007). Thus, we assume,

H2. Dynamic environment strengthens the connection between EO and tourism business performance.

2.3. Networks

Network ties can be defined as the extent individuals, firms, management or entrepreneurs of the same network tie to each other. These can be either strong or weak. Strong-tie relationships are described by frequent interaction between individuals, entrepreneurs and firms with similar interest. This tends to reinforce and develop insights and new ideas. Weak-tie relationships, however, are characterized by infrequent interactions between casual acquaintances (Barringer and Ireland, 2016). Arguably strong network ties facilitate communication, cooperation, frequent exchanges of information and greater dissemination of knowledge across the organization. This results significant reductions in total costs (Kraatz, 1998), stable and balanced business operations (Gavirneni, 2002) and improves innovation (Goes and Park, 1997). According to Lee et al. (2009), strong-tie relationships are triggered by a sense of companionship, comfort, security and are part of a multilayered strategic relationship.

Network ties can be viewed from the point of business or social relationships. Entrepreneurial firms utilize business networking as a vehicle to connect more with each other counterparts to enhance efficiency operation (Barringer and Ireland, 2016). Business network ties are recognized as key facilitators of the effectiveness and efficiencies of entrepreneurial strategic orientation activities to capture emerging business opportunities (Barringer and Ireland, 2016; Li and Zhou, 2010). As Menor and Roth (2008) stress, world-class organizations are able to create dynamic processes through strong network ties that foster accelerated information flows along with other capabilities providing sustainable competitive position in the global market.

There has been research on the role of EO in a dynamic environment (Covin and Slevin, 1989; Wiklund and Shepherd, 2005), the mediating effects of network resource acquisition (Jiang et al., 2018) information orientation (Keh et al., 2007), and technology action (Choi and Williams, 2016). Recently, using network theory, Jiang et al. (2018) find that the acquisition of resources from a firm's networks (business and government) is a mechanism by which EO enhances a firm's performance. These scholars focus on the mediating role of the network in resource acquisition. Using networks as a mediating variable in the external environment, whether the influence is increased in a dynamic environment is key to this study as the speed of change hospitality firms are experiencing is unprecedented.

Entrepreneurial firms have a propensity to be more innovative where information flows establish an arrangement and relationship for quick interactions between agents (Tajeddini and Trueman, 2014, 2016). Business networking has been well documented particularly the networks contribution to destination development (cf. Heidari et al., 2018. Kelliher et al., 2009; Kim and Shim, 2018; Tinsley and Lynch, 2001; Welch and Wilkinson, 2002) and knowledge exchange within networks are seen as the creation of learning communities. Indeed, as Kelliher et al. (2009) point out tourism development agencies have specifically facilitated these business networks in small hospitality firms to proactively help these entrepreneurs learn and regions develop. Arguably, the actor bonds, resource ties along with activity links and within entrepreneurial hospitality firms may evolve in a single dyadic relationship, connecting to a wider web of actors, activity patterns and resource constellations influencing the business network (Gao et al., 2017; Tinsley and Lynch, 2001). Thus, we propose,

H3. Business network ties strengthen the connection between EO and tourism business outcomes.

As Lien and Cao (2014) report, leveraging social contacts also enables organizations to enhance business performance. Social networks are, hence, also critical sources of information for individuals and organizations. According to Statista (2017), the number of social network users has increased substantially from 2.14 billion in 2015 to 2.46 billion in 2017, and is anticipated to reach 3.02 billion by 2020. Social network relationships can be defined as the individual's social ties with other social actors such as friends, family, colleagues, customers, clients, or managers with the similar interest. The emergence of informal social networks has led to an unprecedented level of information sharing (Kivinen and Tumennasan, 2019). Social media applications are

effective for diffusion of information, interpersonal ties that provide sociability, support, information, a sense of belonging shared personal opinions, thoughts, experiences and social identity (Alalwan et al., 2017; Dickinson et al., 2017; Golzardi et al., 2019). The critical role of social networking has broadly been discussed in marketing practice and an entrepreneurial venture due to its nature of sharing information and operational interactions (Engel et al., 2017). These firms have utilized social networks as a vehicle to create more effective promotional strategies and aspirational branding where customer's interactivity, involvement and relationships are stimulated and their experience is shared. Entrepreneurs build social capital through social networks to benefit from social participation. Social media applications are represented in virtual platforms (e.g., Instagram, Flickr, LinkedIn, YouTube, Digg, Google Reader, Facebook, Twitter) and have become an indispensable means for the tourism and hospitality industry by transforming travelers from passive to active co-producers of experiences about peer-to-peer accommodation and tourism service recommendations (Ge and Gretzel, 2018; Xiang and Gretzel, 2010), thereby they influence business performance (Chung et al., 2017). Thus, we hypothesize,

H4. Social network ties strengthen the connection between EO and service business outcomes.

2.4. Technology resources

Technology resources in organizations refer to process-specific informatics technologies that are employed to support particular processes (Ray et al., 2004). Successful firms require not only capabilities in the areas of corporate, business and functional planning and strategy, comprehensive financial projections, and resources allocation, but also information technology resources and capabilities (e.g., technical IT skills, knowledge, infrastructure) for operational processes. The technology resources employed in service industry include networks with representatives, web-enabled customer interaction, computer–telephone integration (CTI) among others (Cohen and Olsen, 2013). Although technology resources are valuable, they can be duplicated easily with insignificant cost and may not affect directly to the business performance (Hadjimanolis and Dickson, 2001). Thus, they may not directly influence business performance. Given the possible benefits of technology resources yet along with other organization's heterogeneous resource portfolios (e.g., skills, knowledge, capitals, and technology resources) as valuable, it is somewhat surprising that research has not extensively explored moderating impact of technology resources on the possible link between EO and service business performance (Cohen and Olsen, 2013). In an entrepreneurial firm, however, they might affect on the association between EO and service performance (Fig. 1). Hence,

Panel B.The moderating role of TR on the EO–financial return performance relationship

Fig. 5. The moderating role of TR on the EO–financial return performance relationship.

H5. Technology resources strengthen the positive association between EO and service business performance.

2.5. Context of study

Japan was selected as the location for the data collection due to the substantial growth rate of the tourism industry. Tourism is increasingly becoming vital for Japan's economy (Honma and Hu, 2012) with a continuous rising trend in average day to day rates since 2012 (Sawayanagi et al., 2014). According to a published report by McKinsey Japan and Travel, from 2011 to 2015, Japan's inbound tourism grew by 33% a year (Andonian et al., 2016). In 2016, the gross domestic product (GDP) contribution of tourism in Japan was USD110.5bn, (2.4% of GDP), generating 4,474,000 jobs (6.9% of total employment) and estimating 7% of total employment (OECD, 2017). According to World Travel and Tourism Council (2018), Japan invested in Travel and Tourism around JPY3,739.6 bn, 3.5 per cent of total investment (USD34.4bn) in 2016 forecasted to maintain 4,854,000 jobs (7.6 per cent of total employment), an increase of 1.0 per cent pa over the period and visitor exports generated JPY3,521.7bn (USD32.4bn), 4.4 per cent of total exports in 2016. This growth was driven by various factors such as *Abenomics* (i.e. reform in economic and financial policies coupled with governmental reforms), depreciation of the Japanese yen (cf. Tajeddini et al., 2020), sustaining the tourism and hospitality industries by the Japanese governments' programs which includes the formation of the Japan Tourism Agency (JTA) in 2008, the launch of the Visit Japan Campaign, the relaxation of visas for tourists and increased advertising (Andonian et al., 2016). As a result of these efforts, the country enjoyed a 5th straight record year of boosted arrivals and tourism spending in 2017. Japan's policy makers have set an aspirational target to increase inbound tourism to 40 million in 2020, triple the annual number of visitor nights in non-metropolitan areas from 2015 to 2020 (Andonian et al., 2016). The government has supported up to 50% of construction costs for new hotels and has suggested the state-run Japan Finance Corp along with other loan lenders to provide suitable financial support to such accommodations to help you through the renovation process smoothly in line with the state's plan (Reubi, 2017). The flow of foreign prominent brand hotels has also contributed substantially to the high growth rate of hotels in Japan (JETRO, 2009).

3. Methods

Our knowledge of the roles of entrepreneurial activities and networking in gaining and sustaining competitive advantage has been gained predominantly through a traditional hypothetico-deductive approach (cf. Tajeddini and Mueller, 2012) utilizing survey questionnaires or brief interviews. However, to avert the researchers from drawing inconsistent conclusions (Creswell and Plano Clark, 2007) and to better understand the nuances of the concepts and their relationships, we commenced with a qualitative pilot study which was then followed with a quantitative survey of hospitality firms. This pilot study prior to the survey was important for three reasons. First, it helped in refining the items/activities included in the questionnaire (Avlonitis and Papastathopoulou, 2001; Kim, 2010; Sampson, 2004; Yin, 2014). Secondly, it pre-empted possible challenges that may have occurred in the data collection and analysis process (Arain et al., 2010; Kim, 2010) by providing a deeper understanding of the Japanese context and lastly it revealed that building relationships through networking is crucial.

The interviews explored the prevalence of entrepreneurial orientation, network ties, and dynamic environment is among tourism service hospitality firms. Thus, a series of six semi-structured face-to-face interviews was carried out with higher-ranking tourism executives on service firm premises in Tokyo. Each semi-structured interview was informal, starting with general questions about experience and professional background and gradually elaborating with respondents on
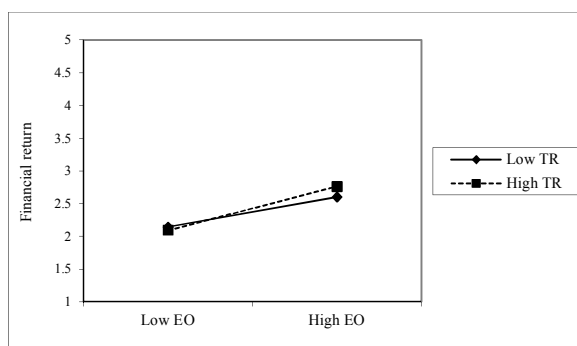
specific aspects of entrepreneurial strategic orientation and networking ties. Instead of simply rolling the planned conceptual theory relationships, these interviews explored what these tourism service managers perceive about the meaning and domain of our constructs from the literature and to estimate the face validity of the measurement scales used in the survey. Some typical questions were: 'How do you seek opportunities?', 'How do you make decisions on investments that might involve risk? 'Do you regularly seek to introduce new products?', 'Do you change your marketing practices and strategy rarely or extremely frequently? 'Do you have any good connections with your business partners (i.e. customers, competitors)? 'Do you use social media to disseminate information and to engage with influential people in your industry?' All interviews lasted approximately 60 min and were transcribed verbatim for maximum comparability. Transcripts were broken down into separate parts and meaning units were used to discover the important segments of the text (cf. Nowell et al., 2017). During the analysis, emerging themes were identified and compared. Overarching themes were extracted through keywords seeking to encompass a broad array of sub-themes that fall under the topics to capture repetitions (Braun and Clarke, 2006).

Three key themes emerged from the pilot interviews which were entrepreneurial dimensions, networks and the environment. Respondents indicated a lack or weak tendency towards proactivity and risk taking with one interviewee stating "*our limited budget does not allow us to be the first mover and often times we assess the market to adopt something new to offer*". Networking was frequently emphasized by respondents who indicated that sociality and interactions with customers, suppliers, and competitors were important to their business. This is affirmed by the following quote "*it is unimaginable not to use social networking to understand our position in the market, our customers' perceptions, their needs and desires*". For example, in Japan it is very common to attend *Nomikai* (drinking party) for professional networking purposes with colleagues and clients. During *Nomikai*, people express themselves and use it as a vehicle to talk about their personal and business lives and exchange their business cards to announce their identities showing a sense of belonging. Regarding social networking, the respondents stated that it is very important for them to attach to their communities though joining different group activities and community services. Such undertakings help them build trust and cement relationships. During the interviews, several informants established the significance of the two networking ties (business and social). These interviews also confirmed the important of the business environment as evidenced form the following quote "*we regularly observe our competitors and update our promotions methods accordingly*". Appendix A provides an overview of other key quotes for these three key themes. This element of the study was effective to refine the themes by revisiting the concepts, ratifying interpretations and provided a better understanding of the possible relationship between the variables.

3.1. Quantitative study

The sampling frame for the quantitative study consisted of 500 Japanese hospitality firms (e.g., hotels, resorts) randomly selected from different regions in Tokyo. Back translation was performed to ensure a rigorous verification process for translation validity and conceptual consistency. After pre-testing the scale items with two Japanese academics, a pretest was conducted with 60 managers from 30 service firms (2 managers each) in Tokyo. This procedure ensured the clarity of the Japanese version of the survey items, certified the quality of the research design and minimized any difficulties with the questions for the respondents. To address potential social desirability bias and to amplify the enthusiasm of key respondents, explicit promise for anonymity and confidentiality was guaranteed.

Over a period of five months, a total of 470 remaining hospitality and tourism service organizations (two surveys per firm, 940 questionnaires) were sent by postal mail accompanied by self-addressed and stamped return envelopes. Two survey questionnaires per organization were used to mitigate common method bias and to diminish the particular source bias. The top managers, owners and chief executive officer were asked to introduce one or two more informants from their firms, who were the most experienced and knowledgeable about the firm's operations, service innovation process, firm performance to fill in the survey questionnaires. The first informant (recognized as manager or owner) evaluated business performance, entrepreneurial orientation and environmental dynamism. The second informant assessed networking ties and technology resources as well as the firm's relationship environmental dynamism and entrepreneurial orientation (both respondents responding to entrepreneurial orientation and environmental dynamism allowed for investigation of consistency within the firm). The above two sources of information were then merged as one dataset per tourism firm (i.e., unit of analysis).

To enhance the motivation of respondents, explicit assurance was given that no individual responses would be revealed by the research team and individual or organizational identifying factors would be removed. No explicit incentive was offered and a total of three reminders were utilized. As a result, twenty one firms responded with only one survey and since we inquired for multiple responses from companies, we removed these organizations' surveys from our final assessments. A series of 28 phone calls were made to respondents to assure key informant quality. Of the 227 responses (i.e., firms), 14 completed surveys were eliminated because of extreme missing data. A final sample of 192 firms (40.85% response rate) was achieved. T-tests were employed to early and late respondents to verify any potential issue with non-response error. Different variables such as firm age, firm size, proactiveness, risk taking and innovativeness were incorporated to evaluate t-values. The findings of t-values were between 0.18 and 0.53, demonstrating no substantial distinctions between these two clusters (p > .05), thus the possibility of a non-response error was negligible.

3.2. Measurement scales

To determine EO, the nine-item measurement was adopted from Covin and Slevin (1989) entailing three elements of strategic posture: innovation, risk-taking and proactiveness. Past studies operationally delineated entrepreneurial strategy-making as an aggregate scale of three components (Miller, 1983; van Doorn et al., 2017). These multidimensional variables reveal top management's behavior in making strategic decisions to shape a company's future and involve generating long term goals and plans to achieve them (see Table 1a).

Environmental dynamism mirrors the rate of any alteration or transformation in organizational design and structure, consumer inclinations, equipment, competitors' action, rules, policies and regulations, as well as the surrounding and environmental factors (Tajeddini and Trueman, 2016). Five opposite established items taken from Khandwalla (1977), to assess firms' environmental conditions were used. These items point out the level of alteration in management practice, rate of products obsolescence, forecast of business rivals' actions and anticipating the consumer preference and production modes. Participants were requested to indicate whether their organizational external environment was stable vs. dynamic and predictable vs. unpredictable (see Table 1b).

To measure *social network* ties, we used the three-item scale suggested by Shane and Cable (2002). This reflected executives' social ties and professional relationships with the other agents. Finally, to assess *business network ties*, we borrowed the four-item scale suggested by Lau and Bruton (2011). The scale assesses the degree to which organizations cooperate with business counterparts together with suppliers, consumers, distributors and rivals (Table 1b).

While objective performance measures are far more desirable than subjective performance measures, we were unable to access the hard financial information partly because managers were not willing to reveal the information. Despite these challenges, prior research has

Table 1a
Unidimensionality and convergent validity tests.

Constructs	Indicator (parameter)		Factor loadings
Entrepreneurial Orientation [(1)]	**Proactiveness**	α = 0.86, CR = 0.87, AVE = 63%	
	PRO1: R&D, technological, leadership, and innovations		.73
	PRO2: New lines of products or services		.71
	PRO3: Changes in product or service		.74[a]
	Innovativeness	α = 0.87, CR = 0.88, AVE = 69%	
	INN1: Initiates actions		.77
	INN2: First to introduce new products/services,		.72
	INN3: Adopt a very competitive, 'undo the-competitors' posture		.78[a]
	Risk-taking	α = 0.86, CR = 0.87, AVE = 68%	
	RT1: Proclivity for high-risk projects		.75
	RT2: Bold, wide-ranging		.77
	RT3: Aggressive posture		.76[a]

Constructs	Indicator (parameter)		Factor loadings
Performance Growth [(2)]	**Performance Growth**	α = 0.87 CR = 0.88 AVE = 75%	
	GR1: Profit growth goal achievement		.73
	GR2: Sales growth goal achievement		.83
	GR3: Market share growth goal achievement		.75[a]
Performance Financial return [(2)]	**Performance Financial return**	α = 0.87, CR = 0.88 AVE = 69%	
	FR1: Profitability goal achievement		.96
	FR2: Return-on-investment goal achievement		.88
	FR3: Return-on-sales goal achievement		.86
	FR4: Return-on-assets		.87[a]

[(1)] Model summary statistics: $\chi^2_{(71)}$ = 117.271, χ^2/df = 1.652, p-value = 0.17, robust CFI = 0.977, RMSEA = 0.048, Delta2 = 0.977, RMR = 0.020; [a]Loading fixed to 1 for identification purposes.
Scale: 1 = not at all; and 7 = to an extreme extent.
[(2)] Model summary statistics: $\chi^2_{(13)}$ = 48.78, χ^2/df = 3.09, p-value = 0.00, robust CFI = 0.98, GFI = 0.95, RMSEA = 0.08, Delta2 = 0.98, RMR = 0.02; [a]Loading fixed to 1 for identification purposes.
Scale: 1= much worse than my competitors; 7= much better than my competitors.

documented a strong correlation between subjective responses and objective measures (Jaworski and Kohli, 1993). Thus, we used the six-item scale to evaluate a company's growth (as a proxy for long-term performance) and financial return (as a proxy for short term performance). Informants were requested to assess these facets over the last 3 years relative to their main rivals.

To measure technology resources in customer service, a six-item scale was adopted from (Ray et al., 2004) to evaluate the range of the technology resources/applications deployed to endorse the process of customer service. Fornell and Larcker (1981) recommended two criteria should be met for convergent validity. Firstly, the factor loading of each item of the scales should be significant and over .7 and to minimize measurement error, the average variance extracted (AVE) should be over .5. As Table 1a and Table 1b show, each factor loading is significant at the 5 per cent significance level ranging from .71 to .96, resting above the recommended level of .7, whereas the lowest AVE of the constructs is .63, showing convergent validity. Composite reliabilities (CR) were performed to estimate the amount to which items was free from random error. The CR and AVE of all constructs point out above the suggested cutoff (AVE > .5 and CR > .7) (Tables 1a and 1b). Chi-square difference tests was conducted ($7 \times 6/2 = 21$) for all major constructs (i.e., EO, dynamic environment, social and business networks, financial return and growth) in pairs to verify if the constrained model presented was significantly worse than the unconstrained model. Chi-square difference tests supported the unconstrained models for each pair of constructs (e.g., test for dynamic environment and social network ties $\Delta\chi^2_{(1)}$ = 12.41, p < 001 and exceeded the critical value ($\Delta\chi^2$ > 3.84). Heterotrait-monotrait (HTMT) method measures (Voorhees et al., 2016) were computed. The results of HTMT tests with all values were below the 0.85 threshold (i.e., the HTMT between business network ties and environmental dynamism was .72), further supporting the notion of discriminant validity.

3.3. Control variables

Seven distinctive controls were adopted for this study to account for their impact on the dependent variable. For further analysis, log-transformation of firm age, firm size, and respondents' experience were used. The number of staff was used to evaluate the size of the organization; a firm's age was assessed based on the number of years since the establishment of the firm; and the participant's experience was assessed by the number of years that he or she was in a similar business. Dummy variables were included (1 = service, 0 = other industries) to evaluate industry type; (1 = hotels and resorts, 0 = other service enterprises) to assess the firm type; (1 = international business, 0 = domestic business) to estimate the firm ownership and (1 = other, 0 = tourism/hospitality) to approximate the participant's background.

Following the recommendation of Venkatraman (1989), two distinct sets of calculations were employed for the confirmation of unidimensionality and convergent validity. In the beginning, we computed the estimated correlation between a certain item and the latent construct it represented. The results indicated that the z-values of the coefficients of all the estimates were significant at the 5 per cent significance level (z-values > ± 1.96, *p* < .05). Second, we examined the measurement model to evaluate the possibility of its fit to the data observing a chi-square (χ^2) examination and adjunct fit indexes. Table 2 indicated that all the factor loadings of all the latent variables were significant (t > 2.0). Furthermore, the shared variances between pairs of all probable variables signified that the *AVEs* were higher than the related shared variance in all cases, further supporting the notion of convergent validity. To examine the likelihood effect of multicollinearity between the interaction effects, mean centered each measurement scale was assessed to represent an interaction term (the moderators along with the independent variable) and generated the interaction terms by multiplying the relevant mean-centered scales.

Multicollinearity between the variables could influence the results. Thus, two multicollinearity tests were performed: variance inflation factors (VIFs) and condition indices (CIs). The largest VIF emerged from

Table 1b
Unidimensionality and convergent validity tests (Cont'd).

Constructs	Indicator (parameter)		Factor loadings
Environmental dynamism [1]	**Environmental dynamism**	$\alpha = 0.87$, CR = 0.89 AVE = 73%	
	ED1: Our firm must rarely change its marketing practices to keep up with the market and competitors (vs. Our firm must change its marketing practices extremely frequently).		.76
	ED2: The rate at which products/services are becoming obsolete in the industry is very slow (vs. The rate of obsolescence is very high).		.75
	ED3: Actions of competitors are quite easy to predict (vs. Actions of competitors are unpredictable).		.81
	ED4: Demand and consumer tastes are fairly easy to forecast (vs. Demand and tastes are almost unpredictable).		.85
	ED5: The production/service technology is not subject to very much change and is well-established (vs. The modes of production/service change often and in major ways).		.79[a]

Constructs	Indicator (parameter)		Factor loadings
Network ties [2]	**Business network ties**	$\alpha = 0.84$, CR = 0.86 AVE = 76%	
	BT1: Customers		.75
	BT2: Suppliers		.72
	BT3: Competitors		.80
	BT4: Distributors		.75[a]
	Social network ties	$\alpha = 0.77$, CR = 0.79 AVE = 63%	
	SN1: I can obtain information about my industry from my network of contacts faster than competitors can obtain the same information.		.75
	SN2: I have a professional relationship with someone influential in my industry.		.73
	SN3: I have engaged with someone influential in my industry in informal social activity (e.g., playing tennis).		.71[a]

Constructs	Indicator (parameter)		Factor loadings
Technology [3] resources in customer service	**Technology resources in customer service**	$\alpha = 0.84$, CR = 0.89 AVE = 74%	
	TR1: Scanning/imaging technology		.85
	TR2: Network with agents/brokers		.84
	TR3: Web-enabled customer interaction		.79
	TR4: Call tracking/customer relationship management system		.74
	TR5: Computer telephony integration (CTI)		.81
	TR6: Customer service expert/knowledge-based system		.84[a]

[1] Model summary statistics: $\chi^2_{(13)} = 28.321$, χ^2/df = 2.179, p- value = 0.008, robust CFI = 0.976, GFI = 0.963, RMSEA = 0.079, Delta2 = 0.976, RMR = 0.040, [a]Loading fixed to 1 for identification purposes.
Scale: 1=strongly disagree; 7=strongly agree.

[2]Model summary statistics: $\chi^2_{(13)} = 19.982$, χ^2/df = 1.537, p- value = 0.096, robust CFI = 0.986, RMSEA = 0.053, Delta2 = 0.987, [a]Loading fixed to 1 for identification purposes.
CR = Composite reliabilities, AVE = average variance extracted.
Scale: 1 = not at all to 7 = to a large extent.

[3] Model summary statistics: $\chi^2_{(9)} = 28.499$, χ^2/df = 3.167, p- value = 0.001, robust CFI = 0.976, RMSEA = 0.097, Delta2 = 0.976, [a]Loading fixed to 1 for identification purposes.
CR = Composite reliabilities, AVE = average variance extracted.
Scale: 0 = Don't intend to implement; 1 = Not yet begun; 3 = Standard/common implementation; 5 = Highly advanced implementation.

Table 2
Intercorrelations, shared variances, and marker variables adjustment (n = 192)[a].

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Firm age (log)	1	.0081	.063	−.098	−.005	−.010	−.148	−.079	−.124	−.064	−058	.029	−.139	−.096
2. Firm Industry	.087	1	.132	.039	−.002	−.063	−.005	.013	−.083	−.043	−.06	.048	−.033	−.60
3. Firm ownership	.069	.138	1	−.120	.069	−.034	−.055	.07	.049	.057	.039	−.013	.063	−.01
4. Firm size (log)	−.091	.045	−.113	1	.171*	.055	.357	.178	.027	−.059	−.237	.253	.062	.015
5. Year Experience (log)	−.034	.004	.075	.171*	1	.165	.221	.018	−.059	.042	−.011	−.013	.047	−.02
6. Background	−.003	−.056	−.027	.061	−.123	1	.005	.008	−.028	−.039	−.016	−.072	−.020	.021
7. Firm type	−.141	.001	−.048	.363**	.227**	.011	1	.027	−.053	−.247	−.013	.024	−.128	.127
8. Entrepreneurial orientation (EO)	−.072	.019	.076	.184*	.024	.014	.033	1	.35	.378	.378	.075	.455	.49
9. Environmental dynamism (ED)	−.117	−.076	.055	.033	−.052	−.021	−.046	.356**	1	.53	.456	.07	.603	.554
10. Business network ties (BT)	−.057	−.036	.063	−.052	.048	−.032	.240**	.384**	.536**	1	.473	.013	.595	.534
11. Social network ties (SN)	−.051	−.044	.045	−.023	−.005	−.009	−.006	.384**	.462**	.479**	1	.041	.373	.43
12. Technology resources (TR)	.035	.054	−.006	.259**	−.006	−.077	.030	.081	.076	.019	.047	1	.083	.069
13. Financial Return (FR)	−.132	−.027	.069	.068	.053	−.013	−.121	.461**	.609**	.601**	.379**	.089	1	.638
14. Growth (GR)	−.089	−.053	−.004	.021	−.004	.027	−.120	.496**	.560**	.540**	.436**	.075	.644**	1
MV = Marker variable	.007	−.073	.006	.004	.039	.027	.027	−.076	−.125	−.035	−.112	−.072	−.113	−.121
Mean	1.59	.18	.13	1.96	2.92	.31	.54	5.33	4.26	4.60	4.88	2.63	4.83	3.86
Standard deviation (SD)	.21	.38	.33	.42	.56	.46	.49	.79	.91	.62	.81	1.02	.82	.81
HSV = Highest shared variance	—	——	—	——	——	—	—	.24	.37	.36	.19	.00	.41	.01

[a] *Note*: Correlations below the diagonal are before the MV adjustment, whereas the correlations above the diagonal are after the MV adjustment (*p = < .05, two-tailed test).

the interaction between EO and environmental dynamism, with a value of 2.371, below the 10 benchmark. Condition indices (*CIs*) were examined utilizing the square roots of the ratios of the largest eigenvalue to each suggestive eigenvalue. The maximum condition indices extracted showing that all were less than 9.816. The maximum condition number was lower than both stringent (15.0) and lax (30.0) threshold values (see Belsley, 1991), thereby multicollinearity was unlikely to be a problem in our empirical data.

3.4. Common method variation (CMV)

To diminish any common method variation, the scale items were cautiously observed to determine that they were straightforward, explicit and short. A Harman's ex post one-factor examination was run to present a further verification for CMV. The factor analyses showed that nine factors had eigenvalues greater than 1.0, explained by 71.705% of the total variance. Factor 1 explained 25.340% of the variance (less than the most of the total variance), CMV seemed not to be an issue (Podsakoff and Organ, 1986; Tsai and Yang, 2014). Furthermore, a one-factor model was computed to compare with the measurement model. The results showed chi square = 734.15 with 198 df indicating there were no issues with CMV. Furthermore, CMV was calculated by incorporating a marker variable (MV) in the survey questionnaire between the independent variable and the other independent variables (see Lindell and Whitney, 2001). A six-item socialization scale to measure 'socially desirable responding' was adopted from Strahan and Gerbasi (1972) to serve as a proxy of the MV. This scale was selected because it had no theoretical association with any of the items employed in the current research. The measurement scale of 'socially desirable responding' indicated satisfactory reliability (Cronbach's alpha = .81). The items for the measurement scale of socially desirable responding (1 = strongly disagree and 7 = strongly agree) include: (1) There have been occasions when I took advantage of someone; (2) I sometimes try to get even rather than forgive and forget; (3) At times I have really insisted on having things my own way; (4) I like to gossip at times; (5) I have never deliberately said something that hurt someone's feelings; and (6) I'm always willing to admit when I make a mistake. Lindell and Whitney's (2001) recommendation was followed to construct the adjusted correlation to avoid capitalizing on chance. In doing so, the second lowest positive correlation (r_m = .02) between 'socially desirable responding' and one of the other variables was selected. In order to examine the adjusted correlations and their statistical significance, the subsequent equations proposed by Yannopoulos et al.

(2013) were used:

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

$$t_{\alpha/2, N-3} = r_{ijm}/([1 - r^2_{ijm}]/[N-3])1/2,$$

where:

r_{ij} = the original (i.e., the pre-adjustment) correlation between constructs i and j;

r_m = the marker variable adjustment (i.e., the second lowest positive correlation between the marker variable and one of the other variables);

r_{jm} = the adjusted correlation; and

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

The marker variable adjustment does not alter the sign and significance level of any correlation coefficients proposing that the intercorrelations presented in the framework are improbable to be inflated because of CMV. Additionally, socially desirable responding is also incorporated as a control variable in the hierarchical moderated regression analysis to reduce any CMV concerns. The details of the intercorrelations between the pre-adjustment and the post-adjustment of the constructs can be found in Table 2.

4. Results

The data revealed that a number of control variables were correlated whilst other variables showed only modest levels of correlation (Table 2). For instance, the correlation between size and EO (r = −.184, p < .05) recommends that in smaller hotels and resorts, it is more likely that firms are prone to be more innovative, proactive and willing to take risk. In addition, the positive and significant correlation between firm type and business network ties (r = .24, p < .01) stresses that hospitality firms enjoy business network ties. The positive and strong relationship between technology resources and a firm's size (r = .259, p < .01) indicate that larger firms benefit from technology resources in customer service.

Residuals were detected for linearity and homoscedasticity after each step of analysis and no violations were found of these postulations. The proposed framework composes of interaction terms between EO and environmental dynamism, networking ties and technology resources. A moderated regression analyses served to examine the proposed assumptions (Tabachnick and Fidell, 1989). A stepwise regression was carried out to estimate the explanatory power of each group of variables. We performed two separate series of seven successive

Table 3

Hierarchical Moderated Regression Analysis (Growth and Financial return as the criterion variable) (n = 192).

Predictor (Independent) variables	Criterion (Dependent) variables													
	Growth (GR)							Financial Return (FR)						
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14
Step1: Control variables														
Firm age (log)	−.378	−.086	−.122	−.096	−.038	−.078	−.071	−.564	−.247	−.233	−.246	−.074	−.282	−.087
Firm Industry	−.100	−.025	.023	−.007	−.029	−.015	−.022	−.069	.016	−.002	.014	−.007	−.025	−.039
Firm ownership	.022	−.152	−.114	−.104	−.162	−.157	−.097	.206	.036	.022	.032	−.001	.060	.012
Firm size (log)	.134	−.052	−.020	.049	−.099	−.042	−.011	.247	.069	.057	.059	−.101	.028	−.099
Year Experience (log)	.029	.035	.059	.092	.031	.036	.088	.094	.089	.079	.083	.077	.084	.081
Background	.043	.075	.112	.123	.064	.078	.116	−.020	.019	.005	.014	−.021	.005	−.028
Firm type	−.269	−.110	−.149	−.188*	−.084	−.122	−.144	−.329*	−.118	−.103	−.111	−.023	−.068	−.005
Step 2: Main effects														
Entrepreneurial orientation (EO) (H₁)		.288***	.317***	.326***	.241***	.286***	.287***		.212**	.201	.208**	.043	.223	.054
Environmental dynamism (ED)		.271***	−.014	−.160	−.010	.190	−.352*		.332***	.440***	.373***	.679***	.685***	−.452***
Business network ties (BT)		.280**	.091	−.004	.194*	.249*	−.054		.418***	.490***	.445***	.110	.554***	.195**
Social network ties (SN)		.085	−.054	−.104	.095	.063	−.088		−.025	.028	−.007	.014	.066	.066
Technology resources (TR)		.027	.025	.029	.020	.026	.019		.029	.030	.029	.003	.034	.008
Step3: The two-way interaction														
EO × ED (H₂)			.065***				.022			.025*				.030*
EO × BT(H₃)				.090***			.075**				−.009			.029
EO × SN(H₄)					.045**		.042**					.161***		.155***
EO × TR (H₅)						.014	−.019						.062**	.035**
Marker variable							−.027							−.003
R^2	.033	.475	.544	.567	.496	.477	.596	.063	.525	.534	.525	.791	.554	.807
ΔR^2	—													
Adjusted R^2	−.004	.440	.510	.535	.460	.439	.556	.027	.493	.500	.491	.776	.521	.788
F-value	.904	13.513	16.312	17.898	13.501	12.484	15.089	1.754	16.461	15.710	15.160	51.970	17.009	42.752

Note: Unstandardized regression coefficients are reported.

*p < .05; **p < .01; ***p < .001 (two-tailed test).

ΔR^2 means the increase in R^2 from the model to the previous model.

regression models which evaluated the changes in the amount of variance explained (ΔR^2) to observe the interaction effects, and established overall and incremental F value analysis of statistical significance (see Table 3). Model 1 incorporates of the control variables whilst model 2 is composed of the direct impact of entrepreneurial orientation, environmental dynamism, business network ties, technology resources and social network ties.

Models 3–6 entails the four interaction effects, one at a time, to diminish multicollinearity issues, covering of accurate interaction impacts and increasing the interpretability of the regression coefficients (Cohen et al., 2003), as represented in earlier EO research that examine multiple interactions. Model 5 comprises of the four interaction terms concurrently along with the marker variable. Table 3 shows the control variables accounting for 3.3% and 6.3% of the total variance in growth performance (*F-value* = .904, *ns*) and financial return (*F-value* = 1.754, *ns*) respectively. Incorporating the main independent and the moderator variables increased the R^2 value for growth and financial return and are explained by a substantial augmentation in fit statistics compared to Model 1 and Model 8 respectively.

H₁ posits that the degree of EO would positively affect business growth and financial return. As models 2 and 9 of Table 3 show, the degree of EO was positively related to growth (β = .288, p < .001, model 2) and financial return (β = .212, p < .01, model 9), implying that H₁ₐ and H₁ᵦ are supported. Although not hypothesized, Model 2 in Table 3 shows that environmental dynamism was positively related to business growth (β = .271, p < .001, model 2) and financial return (β = .332, p < .001, model 9). Business network ties was also found to

have positive effect on growth (β = .280, p < .01, model 2) and financial return (β = .418, p < .001, model 9). However, as seen in Table 3, there is no indication of a direct effect of social networking ties (β = 0.85; *ns*, model 2) on growth performance. We also observe no indication of the direct impact of social network ties (β = 0.027; *ns*, model 2) on financial return performance. In line with H₂ through H₅, we included the interaction terms. As shown in Table 3, the positive entrepreneurial orientation × environmental dynamism (i.e. EO × ED) interaction term indicates that the positive relationship between EO and environmental dynamism becomes attenuated at higher levels of growth (β = 0.065; *p* < .001, model 3) and financial return (β = 0.025; *p* < .05, model 10) supporting H₂ₐ and H₂ᵦ respectively. To clarify the nature of these interaction terms, we followed the recommendations of Aiken and West (1991) and plotted the relationship between EO and environmental dynamism and performance (growth and financial return) at high and low levels of a dynamic environment (Fig. 2, Panel A and B, respectively), coupled with a simple slope examination for each. Fig. 2, Panel A illustrate that the positive relationship between EO and growth performance become significant at high levels (simple slope = +.31, t-value = 4.02, p < .001) versus low (simple slope = +.32, t-value = 4.01, p < .001) levels of a dynamic environment. Fig. 2, Panel B depicts the positive association between EO and growth becomes significant at high (simple slope = +.29, t-value = 3.49, p < .01) versus low (simple slope = −.28, t-value = −3.97, p < .01) levels of a dynamic environment.

We found support for positive EO and business network ties interaction term (i.e. EO × BT) at higher levels of growth (β = 0.090; *p* <
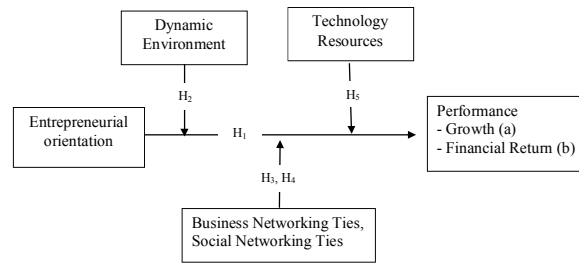
Fig. 1. Hypothesized model.

.001, model 4), but the relationship between EO and business network ties and financial return is not significant ($\beta = -0.009$; $p > .05$ (*ns*), model 11). Thus, we affirm H_{3a} but not H_{3b}. Fig. 3, Panel A demonstrates that the positive association between EO and growth become significant at high (simple slope $= +.28$, t-value $= 2.82$, p < .01) versus low (simple slope $= +.21$, t-value $= 2.18$, p < .05) levels of business network ties.

Fig. 3, Panel B depicts the positive relationship between EO and financial returns is significant at high (simple slope $= +.29$, t-value $= 3.49$, p < .01) versus low (simple slope $= -.28$, t-value $= -3.97$, p < .01) levels of social network ties. H_4 postulates that business growth and financial return performance will increase when EO is complemented by social network ties (SN). As shown in Table 3, the positive entrepreneurial orientation $\times$ social network ties (i.e. EO $\times$ SN) interaction indicates a positive relationship between EO and social network ties becomes attenuated at higher levels of growth ($\beta = .045$, $p < .01$, model 5) and financial return ($\beta = .062$, $p < .01$, model 13) supporting H_{4a} and H_{4b} respectively. Fig. 4, Panel A reveals that the positive relationship between EO and financial return become significant at high (simple slope $= +.20$, t-value $= 4.73$, p < .001) versus low (simple slope $= +.03$, t-value $= 0.44$, p > .05 (*ns*)) levels of social networks.

Fig. 4, Panel B exhibits the positive association between EO and financial return become significant at high (simple slope $= +.24$, t-value $= 5.70$, p < .001) versus low (simple slope $= +.10$, t-value $= 0.44$, p > .05 (*ns*)) levels of social network ties. H_5 posits that growth and financial return performance will increase when technology resources (TR) are complemented by EO. The interaction between EO and technology resources was found to be statistically insignificant on business growth ($\beta = .014$, $p > .05$ (*ns*), model 6), but significant on financial return ($\beta = .062$, $p < .01$, model 13). Therefore, H_{4a} is not supported while H_{4b} is supported. Fig. 5, Panel B shows that the positive relationship between EO and financial return becomes significant at high (simple slope $= +.34$, t-value $= 4.82$, p < .001) versus low

(simple slope $= +.23$, t-value $= 3.31$, p < .001) levels of technology resources.

4.1. Post hoc analyses

Previous studies (e.g., Zahra and Hayton, 2008) suggest that the simultaneous inclusion of various interaction effects that share common variables might constitute methodological issues such as multi-collinearity. To avoid this issue on one hand and to identify the exact effect of true moderating terms on the interrelationships of variables and constructs on the other hand, the interaction terms were included separately step by step. We also carried out a series of post hoc analyses to examine the robustness of the findings and discover possible alternatives. In doing so, all four interaction terms simultaneously included along with MV (model 7 and model 14). While the results indicate that the interaction terms (EO $\times$ business network tie (BT); EO $\times$ social network ties (SN)) on growth performance were positive and significant, as expected, the interaction terms (EO $\times$ dynamic environment (ED); EO $\times$ technology resources (TR)) were insignificant. Similarly, the interaction terms (EO $\times$ ED; EO $\times$ SN; EO $\times$ TR) on financial return performance were positive and significant, as expected, but only the interaction (EO $\times$ BT) was insignificant ($p > .05$). The results indicate a consistency and stability of the signs of the interaction effects in both the comprehensive models (i.e., model 7 and model 14) and the models that contain the interaction effects separately, further supporting the notion of robustness (Covin et al., 2006). Furthermore, we examined the possibility of curvilinear effects of business and social networks in line with arguments that organizations with high business network ties benefit from possible cost reduction, economies of scale, effective targeting of marketing strategies and tactics which may smooth the progress of business success (Boso et al., 2013). A regression analyses was conducted incorporating the corresponding quadratic effects along with the two-way interaction effects. The results show that the curvilinear terms were insignificant, which increases our confidence
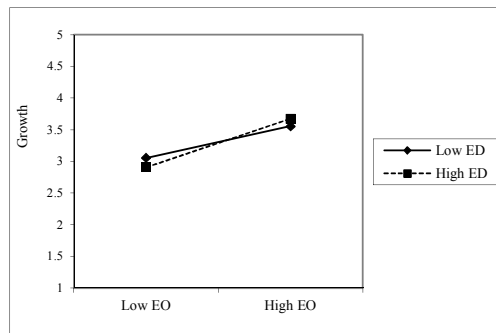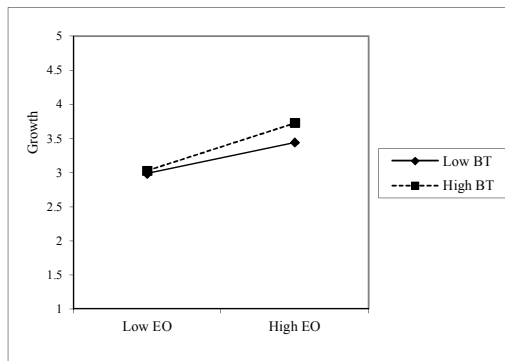

Panel A. The moderating role of dynamic environment (ED) on the EO–growth performance relationship
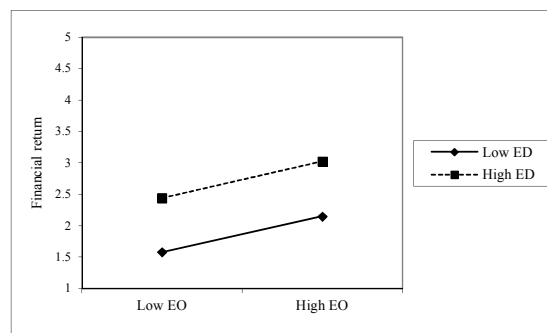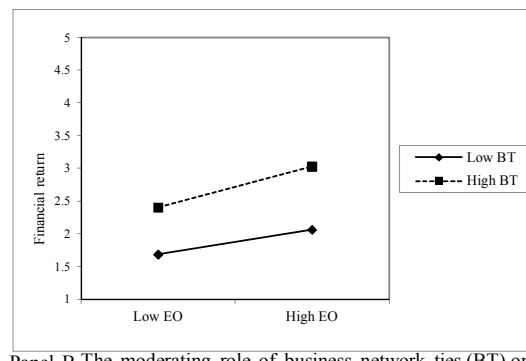

Panel B. The moderating role of dynamic environment (ED) on the EO–financial returns performance relationship

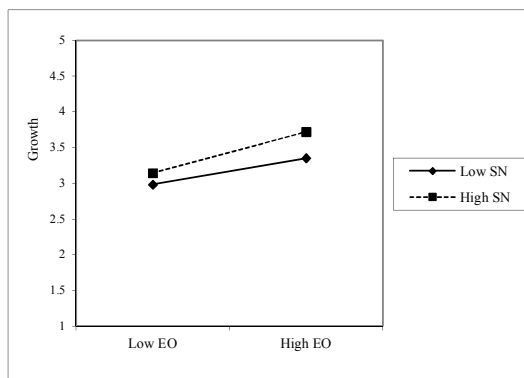**Fig. 2.** The moderating role of ED on the EO–financial growth/return performance relationship.

Panel A. The moderating role of business network ties (BT) on the EO–financial returns performance relationship
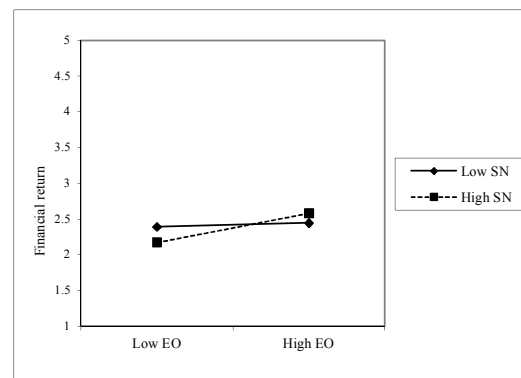

Panel B.The moderating role of business network ties (BT) on the EO–financial returns performance relationship

Fig. 3. The moderating role of BT on the EO–financial growth/return performance relationship.

Panel A.The moderating role of social network ties (SN) on the EO–growth performance relationship

Panel B. The moderating role of social network ties (SN)on the EO –financial return performance relationship

Fig. 4. The moderating role of SN on the EO–financial growth/return performance relationship.

that the proposed assumptions that the observed significant interaction terms strictly replicate the suggested theoretical moderating terms

5. Discussion and conclusions

The research examined the role of a dynamic environment, networking and technology resources, on the relationship between EO and organizational performance. Utilizing the data gathered from Japanese hospitality firms, the findings clearly identified that in uncertain, dynamic environments, a higher level of risk and entrepreneurial orientation benefited business performance especially when coupled with strong business and social networks. The findings also suggest that smaller hospitality businesses have a higher EO as they are more inclined to innovation and risk-taking. Networking ties also have positive effect on growth. This research is timely for the hospitality industry because it developed and tested an empirical model for explaining the relationship between dynamic environment, networking, technology resources, entrepreneurial orientation and organizational performance. Previous research has examined only elements of these relationships (cf. Ghantous and Alnawas, 2020; Jogaratnam and Tse, 2006; Kallmuenzer and Peters, 2018; Majid et al., 2019; Rotondo and Fadda, 2019; Teixeira et al., 2019). Building on the data from Japanese hospitality firms, this research has made innovative contributions by extending the knowledge on EO in the hospitality industry in a number of ways.

First, the results of this research addresses the inconsistencies in the existing empirical investigations into EO and business performance by confirming that EO positively influences short term financial return and long term business growth in creating and building value for hospitality firms (Kallmuenzer et al., 2019) validating that the EO theory is

relevant for the hospitality industry. Previous research in EO in hospitality (Oktavio et al., 2019; Vega-Vázquez et al., 2016) highlight that EO tend to display negative or insignificant influences on business performance. These findings are significant because they assert that if hospitality businesses experiment with alternative offers, are more creative, take risks and are receptive to exploring novel products and new customers, they are more likely to succeed. To improve the performance of their business and for the longevity of the industry (Roxas and Chadee, 2013; Hernández-Perlines, 2016) growth-oriented hospitality firms should display higher levels of EO.

As hypothesized, the findings revealed that the effect of EO on business outcomes is enhanced when operating in a situation with strong business and social network ties. This finding is novel as there is little empirical research on the relationship between networking and EO (Jiang et al., 2018) and in hospitality there is also little literature on this topic despite the significance of collaboration for innovation of the industry (cf. Marasco et al., 2018). Business networking ties are significant in helping hospitality firms to understand intra-firm and inter-firm collaboration, the institutional contexts and the provision of timely and accurate business information. These networks can improve their financial performance by enabling smaller and independent businesses to compete more effectively (Rotondo and Fadda, 2019) as networking ties along with information sharing, and communication is a key avenue of competitive advantage (Achrol and Kotler, 1999; French et al., 2017; Strobl and Kronenberg, 2016). Networking is also important for those hotels which are located on the periphery as this enables them to learn and develop new knowledge, and facilities lowering risk of dealing with change and pursuing new opportunities. The period of writing this paper coincided with the global pandemic of Covid-19 which has already had detrimental impacts on the hospitality

industry. This positive relationship between business networking ties and financial performance indicates that furthering these collaborations can be an opportunity to wrestle such challenging situations (Brass et al., 2004; Rotondo and Fadda, 2019). Thus, proactively networking is a benefit for hospitality businesses especially in changing times. These results are reminiscent of the notion of how interaction with external sources of knowledge and information (i.e. business network ties) can support tourism businesses process-related activities to find novel and effective solutions for their operations. While the quantitative research does not confirm the direct impact of social networking on short and long term performance, the findings from our pilot qualitative work showed otherwise (see Appendix A). Respondents agreed that the social networking ties are important for the success of the business. Indeed, with the exception of some shortcomings (e.g., Lazzarotti and Manzini, 2009), using socio-metric (i.e. social network) items measuring collaboration in the organization, the findings reinforce prior hospitality (Rotonado and Fadda, 2019; Strobl & Kronenberg, 2016; Teixeira et al., 2019) and marketing and management studies (Cambra-Fierro et al., 2011; Lechner et al., 2006) that social network ties facilitate organizations yield and enhance performance while developing their market and orientation.

Our findings deepen the existing research on EO in hospitality (Hernández-Perlines, 2016; Jogaratnam, 2017; Jogaratnam and Tse, 2006; Kallmunzer and Peters, 2019; Vega-Vázquez et al., 2016) and in management (Covin et al., 2006; Lumpkin and Dess, 1996) by confirming that EO is a multidimensional concept. This finding is significant for hospitality businesses because it allows them to have a more strategic approach to resource distribution based on targeting where it is leads to business benefits rather than allocating to each of the dimensions of EO.

Additionally, these results corroborate existing literature that EO must be understood from the contextual characteristics from which it is studied (Lumpkin and Dess, 1996; Wales et al., 2019). This gap in knowledge is also noted in the hospitality literature (Fu et al., 2019; Njoroge et al., 2020). The positive relationship between EO and financial performance may be explained from the Japanese context and the critical importance of networking as part of their business culture. These earlier varying results were possible because it is assumed that the indicators of EO were developed for Western business contexts (Njoroge et al., 2020). Our findings are significant because it affirms that for researchers to provide a developed understanding of EO in the hospitality industry, that the context must be considered as EO may vary based on this. The findings also revealed that the more dynamic the environment the better the return from an EO and smaller hospitality firms are more likely to be entrepreneurial and less risk adverse to larger firms, business networks are highly prevalent in the tourism industry and social networks help the organization when it is growing fast. In hospitality, risks are always present (Williams and Baláž, 2014). Given the dominance of small businesses in hospitality, the findings are significant in encouraging small businesses to be less risk adverse for improved performance. In hospitality, a higher risk tolerance leads to better outcomes for SMEs (Martinez-Roman et al., 2015) and leads to better performance in a dynamic environment (Kreiser and David, 2012). These outcomes are noteworthy given that previous results on small businesses in tourism resulted in inconsistent returns on risk taking did not find an inclination for risk taking (Kallmunzer & Peters, 2018; Memili et al., 2010). This higher level of risk inclination may be explained by the dynamism of the environment within which these Japanese firms are operating in as Miller and Friesen (1983) indicated that the level of risk is environment dependent.

Lastly, our empirical results suggest that the various technological resources by their possible effect on operational processes and strategy development have increased the opportunities for entrepreneurial firms to expand their revenues and short term financial gains, but they are inadequate for attaining success in the long term. A plausible reason is that technological resources are valuable, yet they might be substitutable or duplicable over the course of time (cf. Cohen and Olsen, 2013; Hadjimanolis and Dickson, 2001). Some of these technology resources require a specific level of financial stability to execute within organizations. Entrepreneurial firms with scarce financial resources can harness some technology resources by employing the technologies that are inexpensively available, but they are useful for temporary competitive advantage over rivals (cf. Ray et al., 2004).

6. Managerial implications and limitations

Over and above the theoretical contributions, this study has fundamental managerial implications for tourism companies. As predicted in this research, the impact of EO is dependent on the level of environmental dynamism: the more dynamic the environment the better the return from EO. This infers that these hotels should understand their business environment to improve their performance. However, not all of the businesses have the knowledge and/or capabilities for this to be realized. Here, local hotel associations or government bodies can play a role by providing training and policies to encourage innovation and growth in dynamic environments. For example, in highly dynamic environments, hotels may need more access to financial resources to support them in being more innovative and taking risks.

In conclusion, the moderating impact of networking ties on the connection between EO and organizational performance is supported in this research. Strong social and business networking is increase growth when aligned to an EO, and when the organization is growing fast then social networks really come into their own. Hence with EO, firms can leverage their financial return and growth through establishing strong network relationships. Managers can benefit from strong network ties to leverage intangible knowledge (e.g. domestic and overseas connections) and reduce the cost associated with search for potential buyers, suppliers and competitors. Indeed, entrepreneurs and entrepreneurial firms are not only interested to creating and developing new ventures, bearing more of the risks, but at the same time, they are concerned with the aspect of profit making opportunities. Through network ties and social interaction new ideas can emerge which pave the path to explore profitable opportunities which in particular benefit smaller firms. For hospitality businesses, this research provides empirical support for the importance of networking to manage their expectations.

Hospitality managers are advised to consider forming partnership alliances, dynamic interactions and networking, both socially and in business communities, as connections may be utilized for mutual benefit and success. These notions suggest that to achieve a superior business performance, firms should detect possible valuable partnering opportunities, and pledge preventive activities in response. Investing in enhanced technology will not bring firms these types of returns.

Finally, it is vital to state that academics and practitioners should be careful when generalizing the results to various cultural environments. This research was underpinned in a particular environment of hospitality firms in Japan. Nonetheless, the function of dynamism and networks is pertinent to other industries. Moreover, in this explication, performance was evaluated by growth and financial returns, while there is evidence that performance is multidimensional. Fu et al. (2019) suggested that entrepreneurial research in hospitality and tourism should fuse both qualitative and quantitative research methods to provide richer insights. The qualitative and subsequent quantitative approach of this study sheds new light on the existing EO literature as it explores an avenue of growing importance: the role of dynamic environment and network ties on the relationship between entrepreneurial strategy-making and long term growth and short term financial return. While the qualitative, in-depth approach using a limited number of respondents it helped us have a better understanding the nuances of business and social networking ties along with managerial decision making and entrepreneurship. Throughout the discussion, we have attempted to show the complementarities or contradictories between theory and practice in tourism service businesses. A subsequent

quantitative approach was adopted to collect and analyze data to establish credibility in the field. Future research might utilize objective measurement scales for organizational performance to fortify the study design. Another possibility of future study would be to examine the appropriate levels of strong networking ties required for a firm's success. Luu and Ngo (2018) have reported that strong business ties in collectivist cultures can limit a firm's EO. However, their research is underdeveloped on what the appropriate levels of networking ties are.

Additional research might scrutinize the impact of international business networks on business performance. Since our measures of EO, dynamism, two network-ties constructs, financial return and growth are from self-reports, there would obviate the concern that some of our findings may be affected by measurement error or discrepancies in the level of measurement (Tellis et al., 2009). Using a longitudinal study and incorporating more variables may advance our understanding of the direction of causality between variables.

Appendix A. Entrepreneurial-based networking (Illustrative examples)

Concepts	Illustrative quotes
Entrepreneurial dimensions	'demand for new service is high but we cannot afford to go for new services simply because of our low budget'… and 'low priority of the available budget'… Nevertheless, other informants put more emphasis on proclivity towards innovation. 'We have begun to use service automation and the results are satisfactory'; 'our experience shows that mobile service and self-service have enabled us to reduce our costs'; 'our genuine culture is to make every possible effort to enhance customer loyalty and satisfaction…and we do our best to pursue perfection in the details of our products and services'… one informant states how innovation is key to the success of traditional Japanese firms.'; 'we have adopted self-service check-in kiosks and our customers are pleased with the easy check-in and check-out'.
Networks	Sociality and interactions with customers, suppliers, and competitors were frequently emphasized in our interviews. 'interactions with our stakeholders is unavoidable'; 'some of the comments we get through are our social networks are bitter, but we do our best to fix the problem as soon as possible…of course we cannot satisfy everybody, but we do our best'; 'we regularly observe the comments that our customers write about us, oftentimes we discuss with our colleagues the comments that we receive through social media'; 'our service is for people, and we have a good connection with our customers, travel agencies and trusted partners'; 'connection with our business partners and customers is vital for us and I guess social networking is a key to success for us'. 'If we do not use social media and networking, we can hardly survive; we are extremely dependent on social and business connections, as customers choose and evaluate us through social media, and we take seriously the need to make them happy to receive good feedback'.
Environment	'Although many people believe that our industry is slow to change, we have adopted different and new technologies, and the results are very effective and satisfactory'; 'due to the nature of our business, we have to change our marketing strategy often'.

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