



# Promoting entrepreneurial orientation through the accumulation of social capital, and knowledge management



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## ARTICLE INFO

### Keywords:

Social capital  
Knowledge management  
Entrepreneurial orientation

## ABSTRACT

Management scholars and tourism practitioners emphasize the importance of knowledge management to and social capital of medium and small vendors' entrepreneurial orientation. Constraints on medium and small vendors' time and energy suggest that accumulating social capital is helpful to enhance knowledge management. Furthermore, how and why medium and small networks contribute to entrepreneurial orientation deserves further investigation. In this study, we offer hypotheses to shed insight on the interrelationships among critical attributes of social capital and further test the mediation role of knowledge management that may contribute to entrepreneurial orientation between medium and small vendors. We tested our hypotheses using data collected from 286 medium and small vendors in night markets located in different regions of Taiwan. Study findings identified different relationships among social capital, confirming our hypothesis that social capital affects knowledge management and its application. We further demonstrate that social capital and entrepreneurial orientation are fully mediated by knowledge management. Implications for future research on tourism industry management and medium and small firms' managers are discussed.

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## 1. Introduction

In recent years, tourism and hospitality studies have begun to emerge regarding the ways in which organizations use intangible resources to undertake risk, beat competitors and gain growth (Chathoth and Olsen, 2003; Cohen and Olsen, 2013; Hsu et al., 2014). Thus, exploring the importance of intangible resources in organizational operations has gained increasing attention in the field of tourism and hospitality management. The characteristics of intangible resources have been described as representing valuable, rare, inimitable, and non-substitutable means of achieving superior performance (Barney, 1991). Intangible resources are widely recognized as knowledge-based resources (McEvily and Chakravarthy, 2002) and social capital assets (Adler and Kwon, 2002) that are particularly important for providing a sustainable competitive advantage because those intangible resources have distinctive character-

istics that are difficult to imitate, thus facilitating sustainable differentiation in highly competitive markets. Therefore, given that knowledge management and social capital have become central to small and medium firms' ability to compete, adapt, survive, and grow in increasingly competitive environments (Jansen et al., 2013; Simsek and Heavey, 2011), tourism and management scholars have begun to show greater interest in their origins.

Entrepreneurship scholars have attempted to use intangible resources that firms maintain to explain performance by investigating entrepreneurial orientation (EO) (Getz and Petersen, 2005; Wiklund and Shepherd, 2003). Especially in service industries, small and medium-sized enterprises (SMEs) face increasing pressure from global competition and other nations (Kraus et al., 2012). With the increasing importance of entrepreneurial orientation, researchers have examined the social capital impact of firms' entrepreneurial orientation and new venture performance (e.g., Stam and Elfring, 2008). Often, they have had to rely upon new ventures or high technology firms to infer these traits. Moreover, rarely have studies investigated facets of social capital together; even when studies have mentioned these, they treat entrepreneurial orientation and social capital as separate variables with no discussion of their interrelationships (Stam and

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Elfring, 2008). Thus, identifying situations under which interrelationships improve or constrain entrepreneurial behavior and performance is particularly important, especially in the tourism industry; understanding the experiential phenomena will permit tourism managers and industry policy makers to better implement strategy.

In this research, we provide a theoretical framework based on social capital–knowledge management–entrepreneurial orientation theories of vendor behavior that may resolve this dilemma. We specifically develop the argument that although a vendor's social capital creates the opportunity to engage in knowledge management, the vendor needs to acquire diverse knowledge and application know-how to fully exploit entrepreneurial orientation. An important implication of this argument is that different dimensions of social capital affect the internal functioning of organizations (Tsai and Ghoshal, 1998) and, more specifically, a high level of knowledge diversification and application provides the vendor's motivation and ability to engage in entrepreneurial orientation. To the extent that research on social capital in entrepreneurial orientation has dealt with interpersonal relations, it has typically either been assumed to be endogenous to network structure (Liu, 2013; Tsai and Ghoshal, 1998) or an independent predictor (De Clercq et al., 2013; Stam and Elfring, 2008; Wu et al., 2008). In contrast, we argue that vendors' knowledge management of diverse knowledge acquisition and application know-how mediates the link between social capital and entrepreneurial orientation, revealing that different types of knowledge management function are not equally efficient in promoting entrepreneurial orientation behavior.

We further examine whether the mediating role of knowledge management is contingent upon how vendors apply new knowledge to new product or service development, two key predictors of knowledge management, knowledge diversity and application that have been identified (Dalkir, 2013; Ramesh et al., 2002; Tenkasi and Boland, 1996). A few studies have addressed the role of knowledge management in the acquisition of diverse knowledge and the application as a mediator of the relationship between social capital and entrepreneurial orientation; however, they focused on levels above that of small and medium sized vendors, such as high-tech venture enterprises or organizations. Thus, little is known about vendors' knowledge management behavior and the role of knowledge diversity and application in entrepreneurial networks in surviving and growing in the highly competitive environment of Taiwanese night markets. As a final distinct contribution, we specifically test hypotheses pertaining to both the application and diversification of knowledge. In contrast, most entrepreneurial literature on knowledge management focuses on the dimension of knowledge sharing (notable exceptions are Murray (2004) and De Clercq et al. (2013)). Nevertheless, studying multiple dimensions of knowledge management simultaneously may reveal important similarities and differences in vendors' motivation and behavior that connect social capital and entrepreneurial orientation.

Extant research acknowledges network structure as a predictor of entrepreneurial orientation (e.g., Kreiser, 2011; Stam and Elfring, 2008; Wang and Altinay, 2012), but it remains incomplete in the sense that it has not shed much light on the interrelationships of these dimensions; using a sample of tourism managers is never observed in existing studies. We fill this void by showing that employees who, by virtue of their social capital, may increase entrepreneurial orientation if they possess adequate diverse knowledge and application know-how in new product and service development. Fig. 1 presents the research framework and the proposed hypotheses of this study.

## 2. Hypothesis development

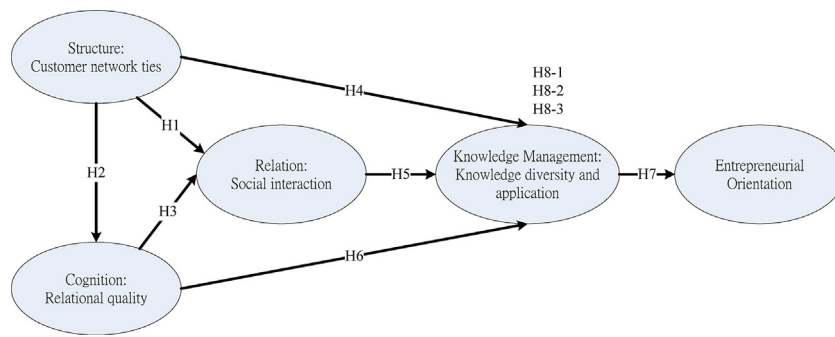
### 2.1. Social capital

Social capital refers to resources derived from social relationships (Payne et al., 2011, p. 491). Nahapiet and Ghoshal (1998) defined social capital as a valuable asset of individual network structure and synthesize it into three main dimensions: cognitive, relational, and structural. In the tourism field, social capital emphasizes evaluation of values, interaction with customers or visitors, development of shared norms with cooperative partners, and mutual trust and reciprocity, which in turn leads to desired performance (Jones, 2005). Some microenterprises, such as hawkers, often struggle to make enough money, such that social networking and capital building are particularly important to develop new business contacts (Donner, 2006). The core idea of social capital as a "lubricant" is predictive of perceptions of tourism and hospitality stakeholders (McGehee et al., 2010, p. 487). Previous tourism and hospitality studies asserted that social capital concepts are especially useful in explaining small- and medium-sized tourist enterprises' success, because of networking relationships, reciprocity, trust, and social norms as marketing tools to develop and strengthen the competitiveness of their organizations (Tinsley and Lynch, 2001; von Friedrichs Grängsjö and Gummesson, 2006). Park et al. (2012) explained social capital as part of an entrepreneurial spirit, which, in regard to the community, contributes social exchange, compensation, and cooperation either collectively or independently for operational leadership. Hu and Racherla (2008) further argued that a certain level of socialization and trust is required to allow for the effective sharing of knowledge between tourism managers and owners, which is difficult to codify. Hence, strong interactions and reciprocity among members are critical for supporting and sustaining a competitive advantage in the tourism and hospitality industry.

Because of differing emphases of social capital, in this study we adopt Nahapiet and Ghoshal's (1998) three-dimensional classification of social capital: structural, cognitive, and relational, which has previously been adopted in existing studies (e.g., Burt, 2000; Ellison et al., 2014; Tsai and Ghoshal, 1998; van den Hooff and de Winter, 2011). The relational dimension refers to the degree of interaction and the quality of social relations (Jones, 2005). Park et al. (2012) understood quality of social relations as an asset of individuals or small groups, which could be used by its owner to gain access new customer contacts through an existing customer. The structural dimension refers to network ties, configuration, stability between actors (Inkpen and Tsang, 2005), and network roles, rules, and precedents (Krishna and Shrader, 2000), thus it relates to maintaining close social relationships with customers (von Friedrichs Grängsjö and Gummesson, 2006). The cognitive dimension covers norms, value evaluation, network member attitudes and reaction, beliefs (Krishna and Shrader, 2000) or perceptions of organization support, reciprocity among members, information sharing, and mutual trust. Therefore, it relates to keeping promises. In this paper, we seek to understand how each dimension of social capital affects entrepreneurial orientation through knowledge management.

### 2.2. The interrelationships among social capital

The structural dimension of social capital manifests as network ties (Yli-Renko et al., 2001) that reflect social relationships between vendors and their key customers. In the service and tourism industry, keeping key customers relationships is particularly important because key customers provide the focal firm access or introductions to a broader marketplace or set of customers (McEvily and



**Fig. 1.** Theoretical model of the relationships among the three dimensions of social capital (structural, cognitive, and relational dimensions), knowledge management, and entrepreneurial orientation (EO).

Zaheer, 1999). Maintaining a broad set of customer ties requires social interactions because when interacting frequency increases, trusting relationships will become more concrete, and actors are more likely to perceive each other as trustworthy and will be more willing to share information and introduce new friends (Tsai and Ghoshal, 1998). Thus, maintaining customer networks ties will be positively associated with social interaction.

The cognition dimension of social capital is operationalized as relationship quality, which reflects vendor-perceived trust, reciprocal expectations, and the sharing of common goals or understandings with his/her customers (Chang and Chuang, 2011; Yli-Renko et al., 2001). Yli-Renko et al. (2001) argue that shared expectations and goals reduce the need for formal monitoring, allowing actors to invest more effort in building personal relationships and increasing their willingness to frequently interact with exchange partners. Moreover, the network literature on relationship quality has documented that the strength of relationship quality may increase the level of consumer participation in a community and that actors are more likely to increase interaction and communication times with community members (Casaló et al., 2010). Trust and mutual understanding permit night market vendors to know their customers, and customers are also willing to share important personal information and increase repurchase frequency and satisfaction. Hence, a vendor perceived as trustworthy by other vendors or customers in the network is likely to increase social interaction and also bring more benefit to the night market.

Created customer networks ties may also encourage the development of mutual trusting relationships and understanding. A trusting relationship develops from exchange reciprocity between two actors, which implies that “common goals and values have brought and kept them together” (Barber, 1983, p. 21). Ouchi (1980, p. 138) suggested that common values and beliefs provide a harmony of interests that erases the possibility of opportunistic behavior. However, common beliefs and values may be developed through time, and such trusting relationships are rooted in maintenance of networks ties (Carey et al., 2011). When keeping good relationships with customer ties, vendor and customers are inclined to trust one another, as they can expect that they will not be hurt by any other member’s pursuit of self-interest (Tsai and Ghoshal, 1998, p. 466). Hence, maintaining customer networks ties is fundamental to increasing the relational quality of mutual trust, common goals and understanding among customers and vendors. Integrating the above literature regarding relationships in the social capital dimension, we hypothesize as follows:

**Hypothesis 1.** Customer network ties of a vendor in the night market will be positively associated with the level of maintaining its social interaction.

**Hypothesis 2.** Customer networks ties of a vendor in the night market will be positively associated with the level of its perceived relational quality.

**Hypothesis 3.** A vendor’s perceived relational quality will be associated with the social interaction level it maintains in the night market.

### 2.3. The extended relationships of social capital to knowledge management

Night markets are open areas that provide an opportunity for customers to interact and form relationships. Knowledge is accrued by integrating information, experience, and theory (Chang and Chuang, 2011, p. 10). From this perspective, useful knowledge needs to be integrated from diverse sources and implications inferred for daily operation (Schultze and Leidner, 2002). Therefore, in this study, we integrate the concept of knowledge diversity and application. Furthermore, knowledge management requires effort of individuals who do interact and perceive knowledge from different customers who are involved in the social process.

The extent to which a tourism small and medium enterprise (SME) manager acquires diverse knowledge from key customers depends on the existence of external knowledge, on the ability of the tourism SMEs to evaluate the value of the knowledge, on repeated, intense interaction with customers, and on the willingness of the SMEs to share useful and newly acquired information (Baggio and Cooper, 2010; Shaw and Williams, 2009). Following this assumption, Nahapiet and Ghoshal (1998) argue that important attributes of social capital facilitate a firm’s knowledge acquisition and influence value creation through intellectual resources exchange and combination. Yli-Renko et al. (2001) asserted that greater levels of social capital (e.g., social interaction, relationship quality, and customer network ties) will enhance a firm’s ability to recognize and evaluate perceived knowledge, thereby increasing both a young firm’s motivation to exchange information and its opportunity for knowledge acquisition.

Social capital should not only facilitate knowledge acquisition by creating intense, repeated interaction but also increase a firm’s opportunity to access diverse knowledge (Rodan and Galunic, 2004). Greater social capital provides the tourism organization insight into the specialized systems and structures of key customers and results in new information, experience, and innovation, when the organization is open to new information and diverse views (Macbeth et al., 2004). Furthermore, social capital provides better communication with and understanding of the needs of key customers, which helps develop application knowledge into new services and products (Yli-Renko et al., 2002). By intensifying knowledge management activities, social capital might serve to increase the relative capacity and effectiveness of night market

vendors in accessing diverse knowledge and applying new knowledge to and from key customers. Thus, we hypothesize the following:

**Hypothesis 4.** Customer network ties of a vendor in the night market will be positively associated with knowledge management.

**Hypothesis 5.** A vendor's perceived relational quality will be positively associated with knowledge management.

**Hypothesis 6.** Social interaction between a vendor and its customers in the night market will be positively associated with knowledge management.

#### 2.4. *The relationships of knowledge management to entrepreneurial orientation (EO)*

As discussed above, knowledge management refers to a vendor's accessing diverse knowledge from customers and applying that knowledge to services and products that can be the source of a sustainable competitive advantage in the night market. In fact, it has been argued that knowledge is a greater intangible asset than other resources and serves as a foundation of sustainable differentiation because of its inimitability (McEvily and Chakravarthy, 2002) and general applicability to enhance innovation (Liu et al., 2014b). Knowledge permits the firm to predict the dynamic environment more accurately, anticipate future trends of commercial potential, and evaluate the appropriateness of strategic and tactical actions (Hoarau and Kline, 2014). Without such knowledge, an organization is less capable of utilizing firm resources and exploiting new market opportunities. Thus, knowledge might be an important source of EO that drives a firm's strategic orientation, allowing it to respond to new opportunities and environmental changes (Wiklund and Shepherd, 2003):

**Hypothesis 7.** Knowledge management will be positively associated with a vendor that has EO.

#### 2.5. *Mediating effect of knowledge management*

The final hypotheses link the relationships among social capital, knowledge management, and EO. Implicitly, the discussion suggests that accumulating assets of social capital affects vendors' entrepreneurial orientation through their capacity for knowledge management. That is, vendors can use a set including individual social capital of relationship quality, network ties and social interaction with their key customers who, in turn, promote night market vendors' propensity to innovate, take risks, and aggressively pursue new opportunities. Thus, this study argues that knowledge management plays a mediating role in the relationship between social capital and is associated with the vendor's entrepreneurial orientation. Following this line of reasoning, this study proposes the following hypotheses.

**Hypothesis 8.** Knowledge management positively mediates the relationship between social capital and EO.

**Hypothesis 8-1.** Knowledge management positively mediates the relationship between customer network ties of a vendor and the relationship with EO.

**Hypothesis 8-2.** Knowledge management positively mediates the relationship between relational quality of a vendor and the relationship with EO.

**Hypothesis 8-3.** Knowledge management positively mediates the relationship between social interaction of a vendor and the relationship with EO.

### 3. Methods

#### 3.1. *Sample and data*

Eight tourism students were hired and trained to assist in collecting data from various night markets in Taiwan. According to Accounting and Statistics (DGBAS) at the end of 2003, Taiwan offered at least 150,000 food-and-beverage operations on the street. Chang and Hsieh (2006) suggested that 72% of tourists or visitors intend to consume a variety of foods during their stay in Taiwan. Thus, in this study we focus on food and beverage vendors, not only because they comprise the majority of the night market vendors, but also because they contribute to the tourism and hospitality literature (Chang and Hsieh, 2006). In this study, we adhered to the same main samples of food and beverage vendors in the night market as were used by Chang and Hsieh (2006). We adapted the face-to-face data collection method; a total of 300 vendors were surveyed via interviewing.<sup>2</sup> After eliminating some vendors due to incomplete questionnaires, the final sample was composed of 286 valid responses. The survey time extended from January to February 2014.

This study uses a sample from Taiwanese night markets for several reasons. First, Taiwan represents an emerging market economy with relatively limited natural production factors, while its advanced factors, such as innovativeness and entrepreneurship, play an important role in its economic development (Wu et al., 2008). Second, Taiwan's SMEs, such as small businesses in night markets, play an important role in rallying local economies. Night markets have been regarded as a group of night markets or a place of retail business (Salleh et al., 2012). These activities of vendors in night markets contribute to the micro, small and medium enterprises (MSMEs) (Salleh et al., 2012), promoting overall economic value in Taiwan (Pang et al., 2014). Based on the sample of small and medium enterprises (SMEs), although prior scholars have proposed and examined how an EO can promote firm profits (Moreno and Casillas, 2008; Sadler-Smith et al., 2003), the study of associations between EO, social capital and knowledge management in night markets is still lacking.

Particularly in Taiwan, night markets have become popular tourist spots and have become internationalized tourist sites through the assistance of government (Tsai, 2013). The government thus has viewed the night markets as one of the most important economic activities. To satisfy the needs of tourists and obtain the proactive information of product in a rapid changing environment, vendors exchange conversation with consumers; thus, products of innovation and proactiveness can be formed and developed (Tsai, 2013). Vendors with entrepreneurship have a posture or disposition toward the processes, practices, and decision-making activities that lead to new products and operations; it involves the intentions of a firm that is willing to grasp new market opportunities, such as the food taste-type novel combinations, in a dynamic environment (Lumpkin and Dess, 1996). In general, EO determines the decision-making activities and strategy in a vendor by using the view of innovation and strategic alliance (Kollmann and Stöckmann, 2014). Therefore, to obtain diverse knowledge and maintain the relationship between vendors and customers, vendors may be willing to take risks and to be innovative in night markets. Vendors with innovation, risk-taking, and proactiveness have the

<sup>2</sup> The sample size is critical for achieving acceptable fit measure by using SEM technology (Reisinger and Mavondo, 2007). Generally, the sample size requirements increase when the complexity of the model increases. Benter and Chou (1987) argue that the ratio of sample size to number of indicators (items) may be at least 5:1. Based on the studies of several scholars (Dastgeer et al., 2012), sample size ranging from 200 to 300 is considered to be critical.



appropriate entrepreneurial orientation to maintain competitive advantage and economic performance.

### 3.2. Measures

Knowledge management has been identified as a positive benefit of social capital (Adler and Kwon, 2002; Inkpen and Tsang, 2005; Nahapiet and Ghoshal, 1998). Following the article of Nahapiet and Ghoshal (1998), social capital is operationalized as three dimensions: structural, cognitive and relational. In addition, this study adopts two prior dimensions of knowledge management: knowledge diversity and knowledge application (Arnold et al., 2011; Chen and Huang, 2009).

#### 3.2.1. Structure

The structure of social capital is operationalized as network ties in which the actors have embedded to maintain social relationships between team members in vendors and their customers, and owners know these customers' people on a personal level, creating opportunities for social capital transactions (Adler and Kwon, 2002). The structure is measured by using three questions developed by Maurer et al. (2011) and Yli-Renko et al. (2001). An average score of the questions is then calculated to indicate the overall structural dimension of social capital.<sup>3</sup> This construct has an overall Cronbach's  $\alpha$  of 0.78.

#### 3.2.2. Cognition

The cognition is operationalized as relationship quality with three questions reflecting the extent to which the owner of the vendor perceives trust between the owner and his/her customers (Yli-Renko et al., 2001). Following the measurements of Heide and Miner (1992), Nooteboom et al. (1997) and Yli-Renko et al. (2001), this dimension is measured using three questions, including keeping the customer's promises to the vendor and avoiding any serious damage to the relationship between the vendor and its customers. Similarly, the average score of the questions is then calculated to indicate the overall cognitive dimension of social capital.<sup>3</sup> This construct has an overall Cronbach's  $\alpha$  of 0.87.

#### 3.2.3. Relation

Relation is operationalized in this study as social interaction with three questions reflecting the extent to which the relationship is represented by network members and social ties between the vendor and its customers (Inkpen and Tsang, 2005; Maurer et al., 2011; Yli-Renko et al., 2001). It is measured by using three questions, including the introduction of a new question to examine the original customer and reciprocal relationship between the vendor and its customers. The overall Cronbach's  $\alpha$  is 0.83.

#### Mediated variable

#### 3.2.4. Knowledge management

Knowledge management is a mediated variable in this study. This study uses two variables to measure knowledge management: knowledge diversity and knowledge application, both reflect innovation and are widely used in existing studies (Arnold et al., 2011; Chen and Huang, 2009). The Cronbach's alpha values of knowledge diversity and knowledge application are 0.81 and 0.88, respectively.

#### Dependent variables

#### 3.2.5. EO

The dependent variable in this study is EO. The following three dimensions are slightly revised and used to measure EO:

innovation, proactiveness, and risk-taking. The three dimensions are measured using nine questions developed by Miller (1983) and Covin and Slevin (1986, 1988, 1989). Respondents are asked to rank the indices on a seven-point Likert scale, ranging from 1 to 7. The higher the score, the stronger the EO of the vendor. The Cronbach's alpha values of the three dimensions are 0.90, 0.83, and 0.70, respectively, with an overall Cronbach's alpha of 0.90.

#### 3.2.6. Control variables

Several variables that might influence the EO of ventures are controlled in the regression models, including vendor age and vendor size because the attributes of vendors in the night markets are similar to small enterprises. Vendor size reflects the economies and diseconomies of scale and may form barriers to entry (Bain, 1968). It is operationalized as the natural logarithm of the employees. Vendor age is controlled because prior studies suggest that established organizations are more bureaucratic, and this factor influences their innovation and entrepreneurship (Hannan and Freeman, 1989). Vendor age is measured as age since its establishment. Furthermore, this study also controls for a number of owner demographic variables, including owner age, education, and experience. Owner age is controlled because younger owners tend to be oriented toward attempts to be innovative, novel, and unprecedented and more likely to take risks (Hambrick and Mason, 1984). A person's formal educational background can yield rich but complex information, and the formal education of a management team can be associated with innovation (Bantel and Jackson, 1989; Hambrick and Mason, 1984). Experience reflecting career experiences in night markets can be expected to have a significant effect on the types of actions (i.e., innovation and acquisition of knowledge) by a manager. Experience is operationalized as the total number of years of work in night markets (Bantel and Jackson, 1989; Hambrick and Mason, 1984).

### 3.3. Analytical methods

This study uses several analytical methods to test all hypotheses. First, a standard two-step process is followed in which confirmatory factor analysis (CFA) is first performed to assess the measurement model, and the structural model is then constructed when the measurement model is upheld (Anderson and Gerbing, 1988). Second, to confirm the robustness of the mediating effect, ordinary-least-squared (OLS) hierarchical regression analysis, a comparison of alternative models and tests of indirect effect are then used to examine the possible mediating effect.

#### 3.4. Pilot testing

Before collecting data from various night markets, this study considered the accuracy of indicators for all constructs while the development of the questionnaire has been reported in prior journal articles (Arnold et al., 2011; Chen and Huang, 2009; Covin and Slevin, 1989; Heide and Miner, 1992; Inkpen and Tsang, 2005; Maurer et al., 2011; Miller, 1983; Nooteboom et al., 1997; Yli-Renko et al., 2001). The pilot testing has been achieved as follows. First, to confirm the accuracy of the questionnaire, based on the suggestion of Douglas and Craig (2007), this study conducted a back translation approach that has been widely used to test the accuracy of the translation and to detect errors in translation. Following the research of Harkness (2003), after translating the language from English into Chinese, all items of constructs were reviewed and adjudicated by the expert team, including managers in the tourism industry and scholars in the field of tourism management, thus avoiding a risk of response bias in our survey.

Second, to further confirm validity of all constructs, the questionnaire was refined through pre-testing by using a small sample.

<sup>3</sup> Respondents are asked to rank the extent to which they agree on a seven-point Likert scale, ranging from extremely disagree (=1) to extremely agree (=7).

**Table 1**  
Pre-testing for measurement models ( $n = 64$ ).

Constructs and item measures	Factor loading ( $\lambda$ )	$t$ -Value	CR	AVE	RMSEA	GFI	NFI	CFI
Structural (three items)	0.85–0.91	8.19–8.57	0.90	0.74	0.01	0.99	0.99	0.99
Cognitive (three items)	0.56–0.94	4.76–5.64	0.88	0.73	0.01	0.99	0.99	0.99
Relational (three items)	0.54–0.95	4.06–8.75	0.80	0.57	0.01	0.99	0.99	0.99
KM			0.92	0.70	0.04	0.98	0.98	0.99
Knowledge diversity (three items)	0.63–0.90	6.25–6.17						
Knowledge application (two items)	0.80–0.99	6.58–7.61						
EO			0.94	0.60	0.03	0.90	0.94	0.99
Innovation (five items)	0.65–0.81	5.15–5.77						
Proactiveness (three items)	0.77–0.78	6.64–6.88						
Risk-taking (three items)	0.58–0.83	4.76–7.42						

A statistical analysis of CFA was conducted by this study before testing all hypotheses. The results of the measurement models showed that all the items were loaded in their specified constructs. All the models exhibited a good fit with the data. The factor loadings and measurement fit were reported in the descriptions of the measurement scale in Table 1. Again, the items of the questionnaire used CFA to examine the reliability, including  $t$ -test for the factor loadings, composite reliability of construct (CR), and average variance extracted (AVE). All indices were examined to achieve threshold.

#### 4. Results

Table 2 reports the means, standard deviations, and correlation coefficients of all variables in this study. The coefficients among independent, mediating, and control variables are rather low. In addition, the variance inflation factor (VIF) values in all regression models are assessed by this study; we find that all variables fell below 10, the most commonly used threshold. The highest VIF for any one variable is 2.34. This result implies that no serious multicollinearity problems exist in our models (Chatterjee et al., 2000).

##### 4.1. Measurement assessment procedures

Following the study of Anderson and Gerbing (1988), a two-step analytical approach is used to test the hypothesized model. The study first employs a CFA by using LISREL 8.54 (Bentler and Wu, 1993) and then conducts an SEM based on the measurement model to estimate the fit of the hypothesized model to the data.

A measurement model represents that the measured items are posited to correspond with underlying constructs. The items of the questionnaire used CFA to examine the reliability and validity. This confirmatory assessment approach is composed of both convergent validity and discriminant validity. First, to assess convergent validity, this study examined Cronbach's alpha, the  $t$ -test for the factor loadings, composite reliability of construct (CR), and the average variance extracted (AVE) (Bagozzi and Yi, 1988). It has been

affirmed by Hair et al. (2006) that reliability is also an indicator of convergent validity. Composite reliability, which refers to the levels of internal consistency for constructs, must exceed the benchmark of 0.6 (Bagozzi and Yi, 1988). Average variance extracted (AVE) is used to calculate the explanatory power of variance between latent variables and measurement variables, and must exceed the benchmark of 0.5 (Anderson and Gerbing, 1988). The results in Table 3 confirm the convergent validity of the scales because the factor loading of all indicators are above 0.5 and are significant on their posited underlying constructs ( $t > 1.96$ ) (Anderson and Gerbing, 1988).

Additionally, the values of composite reliability are above 0.6, implying that the indicator variables can measure the constructs range (Bagozzi and Yi, 1988). Convergent validity is confirmed. Second, regarding discriminant validity, the results of Table 4 show that the confidence intervals of the correlations for the constructs excluded 1.0, implying discriminant validity of inter-constructs. In addition, discriminant validity is assessed by comparing the unconstrained model with the constrained model, in which the correlation between the two constructs is constrained to 1.0 (Anderson and Gerbing, 1988; Jöreskog and Sörbom, 1989). The results show that each pair of constructs has a significant difference (Table 4). Therefore, discriminant validity is also achieved.

This study conducts a CFA for structural dimension, cognitive dimension, relational dimension, knowledge management, and EO. Individual variables in this six-factor model are loaded on different factors. The CFA provides an acceptable fit for the full measurement model in which structural dimension, cognitive dimension, relational dimension, knowledge management, and EO are all included ( $\chi^2(64) = 190.17$ , GFI = 0.91, CFI = 0.98, NFI = 0.96, RMSEA = 0.08).

##### 4.2. Assessment of model fit and path significance

This study averages items into dimensions for innovation, proactiveness, and risk-taking and treats the dimensions as separate indicators of their corresponding construct (EO) in the SEM

**Table 2**  
Descriptive statistics and correlation coefficients of variables ( $n = 286$ ).

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9
1 Owner age	35.035	10.182	1.000								
2 Education	2.498	.636	-.043	1.000							
3 Vendor size	3.664	3.359	.059	.007	1.000						
4 Vendor age	9.130	12.102	.367***	-.106*	.189***	1.000					
5 Experience	7.784	8.719	.568***	-.147*	.069	.657***	1.000				
6 EO	4.606	1.078	-.034	.126*	.100*	.163**	.146*	1.000			
7 KM	5.101	1.040	.057	.200***	.111*	.236***	.218***	.549	1.000		
8 Structural dimension	4.656	1.118	.080	.141*	.103*	.208***	.221***	.325***	.543***	1.000	
9 Cognitive dimension	5.287	1.142	.031	.068	-.043	.167**	.192***	.410***	.600***	.501***	1.000
10 Relational dimension	5.333	1.160	-.002	.090	.052	.193***	.199***	.446***	.704***	.489***	.666***

Note: The VIF values are less than 2.34, implying that our model contains no significant multicollinearity problems.

\*  $P < 0.1$ .

\*\*  $P < 0.05$ .

\*\*\*  $P < 0.01$ .

**Table 3**  
The Parameters of measurement model ( $n = 286$ ).

Item	Mean	SD	Factor loading	t-Value	CR (>0.6)	AVE (>0.5)
1. Structure (3 items) (Cronbach's alpha = 0.78)					0.75	0.51
We maintain close social relationships with customer.	5.00	1.25	0.81	13.97		
We know customer's people on a personal level.	4.20	1.46	0.55	8.09		
We maintain close social relationships with team members I am constantly on the lookout for new ways to improve my life.	4.78	1.31	0.74	12.98		
2. Cognition (3 items) (Cronbach's alpha = 0.83)					0.86	0.68
In this relationship both sides avoid making demands that can seriously damage the interests of the other.	5.36	1.30	0.88	18.27		
In this relationship neither side takes advantage of the other even if the opportunity arises.	5.45	1.27	0.91	19.15		
This customer always keeps its promises to us.	5.06	1.39	0.66	12.68		
3. Relation (3 items) (Cronbach's alpha = 0.89)					0.92	0.78
We have got new customer contacts through this customer.	5.43	1.29	0.75	15.25		
This customer has 'opened the doors' of other customers for us.	5.46	1.32	0.97	22.11		
We can received voluntary assistance by customers that be reciprocated eventually.	5.10	1.28	0.92	20.10		
4. Knowledge management: (Cronbach's alpha = 0.91)					0.92	0.72
Knowledge diversity (3 items)						
Customer knowledge in our unit has developed is very diverse.	5.36	1.27	0.80	15.53		
The customer knowledge our unit has developed is very heterogeneity.	5.07	1.30	0.77	14.68		
Our unit has acquired customer knowledge with different profiles and behavior patterns.	5.09	1.29	0.83	16.23		
Knowledge Application (2 items)						
Effectively managing knowledge into practical use.	5.04	1.25	0.88	17.93		
Effectively utilizing knowledge into practical use.	5.02	1.24	0.94	19.91		
5. EO (Cronbach's alpha = 0.90)					0.94	0.54
Innovation (5 items)						
In general, my vendor (store) in the night market. . .						
A strong emphasis on the food or beverage of R&D, technological leadership, and innovations	5.04	1.57	0.77	15.12		
Very many new lines of products or services in terms of food or beverage.	4.49	1.61	0.78	14.79		
Changes in product or service lines have usually been quite dramatic in terms of food or beverage.	4.22	1.38	0.67	12.13		
My vendor (store) prefers to design its own unique new food or beverage of production.	4.62	1.55	0.81	16.12		
My vendor (store) favors novel and original approaches to problem solving.	4.66	1.44	0.83	16.45		
Proactiveness (3 items)						
In dealing with its competitors, my vendor (store). . .						
Typically initiate which competitors then respond to.	4.77	1.51	0.70	13.20		
Is very often the first business to introduce administrative models and operating models of new products/services in terms of food/beverage.	4.61	1.53	0.88	18.50		
A strong tendency to be ahead of other competitors in introducing novel ideas or products in terms of food or beverage.	4.80	1.48	0.87	18.11		
Risk-taking (3 items)						
In general, my vendor (store) has. . .						
Strong proclivity for high-risk projects with chances of very high returns.	3.67	1.63	0.52	8.08		
Owing to the nature of the environment, wide-ranging acts are necessary to achieve the vendor's objectives	5.02	1.45	0.86	17.00		
When confronted with decision-making situations involving uncertainty, my vendor (store) typically adopts a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities.	4.77	1.49	0.72	13.40		

Note: Reliability represents the square of factoring loading. CR represents composite reliability; AVE represents the average variance extracted.

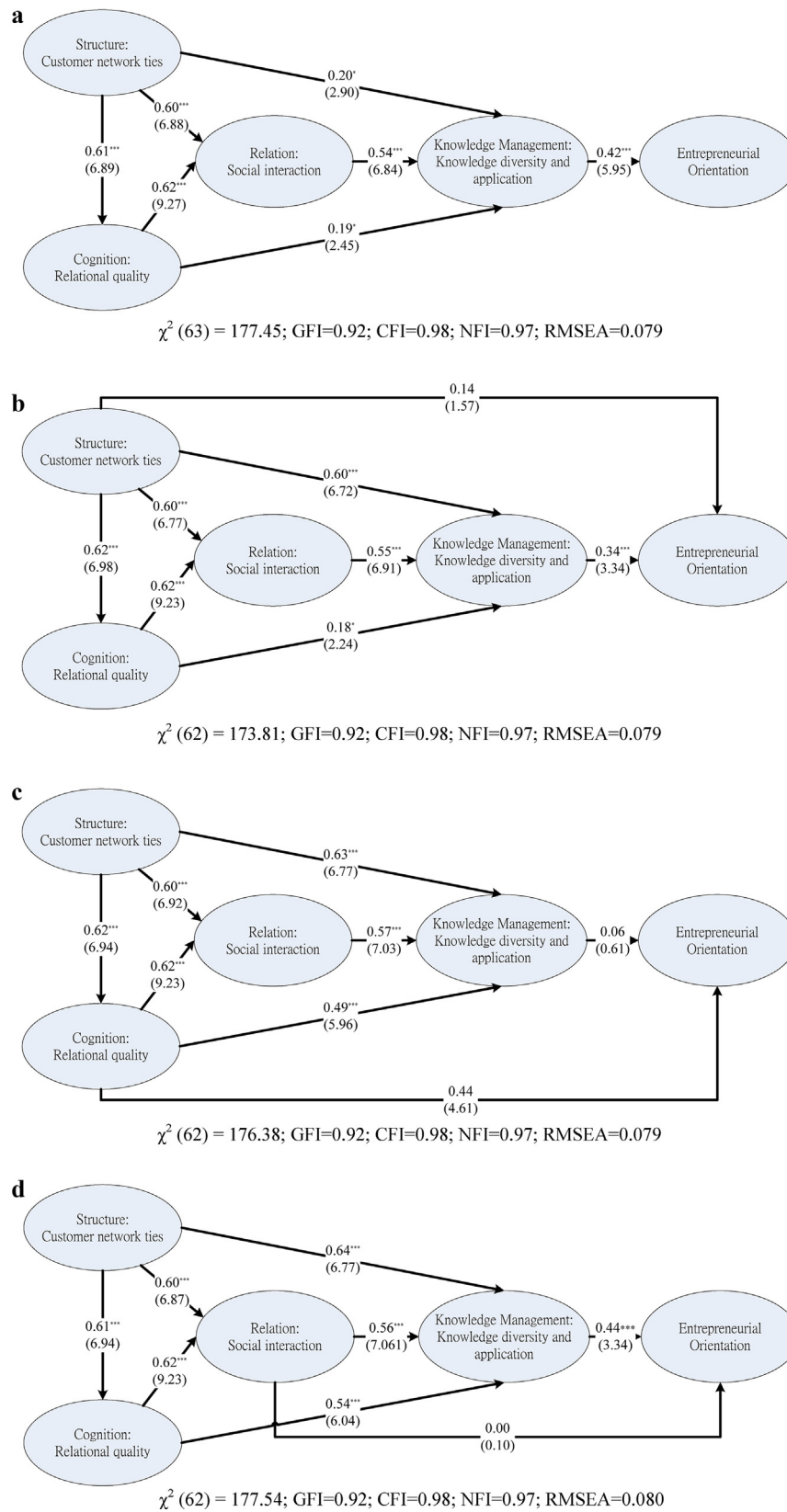
**Table 4**  
Analysis of discriminant validity ( $n = 286$ ).

Construct	Structure	Cognition	Relation	KM
Cognition	36.91 <sup>***</sup> (0.305, 0.697)			
Relation	43.33 <sup>***</sup> (0.293, 0.685)	4.31 <sup>*</sup> (0.607, 0.723)		
KM	38.95 <sup>***</sup> (0.347, 0.739)	15.46 <sup>***</sup> (0.522, 0.678)	8.26 <sup>***</sup> (0.645, 0.763)	
EO	50.65 <sup>***</sup> (0.129, 0.521)	30.62 <sup>***</sup> (0.068, 0.508)	38.04 <sup>***</sup> (0.292, 0.564)	42.39 <sup>***</sup> (0.431, 0.666)

Note: The statistics compare the differences between the unconstrained model and the constrained model. The estimated confidence intervals are in parentheses.

\*  $P < 0.10$ .

\*\*\*  $P < 0.01$ .



**Fig. 2.** Results of the SEM model ( $n=286$ ). Note: Standardized factor loadings and path coefficients are presented. The estimates of  $t$ -value are reported in parentheses. \* $P < 0.10$ , \*\* $P < 0.05$ , \*\*\* $P < 0.01$ . (a) Structural model (model 2a). (b) Alternative model (model 2b). (c) Alternative model (model 2c). (d) Alternative model (model 2d).

analyses. Again, the construct (knowledge management) is similarly operationalized. The structure, cognition, and relation dimensions derive from the concept of social capital. The hypotheses of study are tested by using SEM technology. The results of the

structural model are presented in Fig. 2a, which presents standardized parameter estimates,  $t$ -values, and significance levels for the hypothesized path. The fit indices for this model are adequate:  $\chi^2(63) = 177.45$ ; GFI = 0.92; CFI = 0.98; NFI = 0.97; and RMSEA = 0.079.



**Table 5**  
Results of OLS regression model (n = 286).

Dependent variables	Knowledge management						EO													
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8		Model 9		Model 10	
	$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.
Incept	2.510	.338	1.607	.350	1.127	.316	4.279	.350	3.299	.402	1.983	.396	2.458	.426	1.718	.410	2.341	.422	1.823	.406
Owner age	-.007	.006	-.005	.006	.001	.005	-.019*	.008	-.017*	.007	-.014*	.007	-.015*	.007	-.013*	.007	-.012*	.007	-.012	.007
Education	.257**	.083	.304***	.077	.255***	.070	.255*	.100	.168*	.099	.034	.090	.187*	.094	.047	.089	.162*	.093	.045	.090
Vendor size	.009	.016	.034*	.015	.017	.013	.024	.019	.018	.019	.013	.017	.035*	.018	.019	.017	.023	.018	.015	.017
Vendor age	.011*	.006	.009*	.005	.008	.005	.010	.007	.007	.007	.001	.006	.005	.007	.001	.006	.004	.007	.001	.006
Experience	.011	.009	.011	.008	.005	.008	.023*	.011	.017	.011	.011	.010	.016	.010	.011	.010	.013	.010	.011	.010
<b>Independent variables</b>																				
Structure	.425***	.049							.264***	.058	.041	.059								
Cognition			.494***	.045									.362***	.055	.135*	.061				
Relation					.586***	.040											.383***	.054	.114	.068
<b>Mediated variable</b>																				
Knowledge management									.524***	.065			.461***	.069			.460***	.076		
R <sup>2</sup>	0.327		0.406		0.517		0.078		0.143		0.309		0.207		0.32		0.224		0.315	
Adj-R <sup>2</sup>	0.312		0.393		0.506		0.061		0.124		0.291		0.190		0.303		0.206		0.298	
F value	21.829***		30.755***		48.119***		4.562**		7.500***		17.213***		11.749***		18.124***		12.935***		17.699***	
Dependent variables			Knowledge management				EO													
			Model 11				Model 12				Model 13									
			$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.	$\beta$	S.E.						
Incept			.612	.322			1.944	.439			1.681	.420								
Owner age			-.001	.005			-.013*	.007			-.013*	.007								
Education			.205***	.068			.126	.092			.038	.089								
Vendor size			.020	.013			.025	.017			.016	.017								
Vendor age			.006	.005			.003	.006			.001	.006								
Experience			.003	.007			.011	.010			.010	.010								
<b>Independent variables</b>																				
Social capital			.756***	.048			.508***	.066			.182*	.086								
Mediated variable																				
Knowledge management											.430***	.079								
R <sup>2</sup>			.549				.244				.319									
Adj-R <sup>2</sup>			.539				.227				.302									
F value			54.805***				14.534***				18.031***									

Note: Standardized regression coefficients are presented. Standard errors are in parentheses. The independent variable is structure, cognition, and relation. The dependent variable, EO, is measured using three dimensions (innovation, proactiveness, and risk-taking). The mediated variable is knowledge management. The remaining variables report the control variables, including owner age, vendor size, education, vendor age, and experience.

\* P < 0.10.  
 \*\* P < 0.05.  
 \*\*\* P < 0.01.

**Table 6**  
Comparison of competing models (N = 286).

Model test	$\chi^2$	df	$\chi^2/df$	$\Delta\chi^2$	$\Delta df$	$\Delta\chi^2/\Delta df$	GFI	NFI	CFI	RMSEA
Hypothesized model 2a	177.45	63	2.82				.92	.97	.98	.079
Alternative model 2b	173.81	62	2.80	3.64	1	3.64 (insignificant)	.92	.97	.98	.079
Alternative model 2c	176.38	62	2.84	1.07	1	1.07 (insignificant)	.92	.97	.98	.079
Alternative model 2d	177.54	62	2.86	-.09	1	-.09 (insignificant)	.92	.97	.98	.080

Note:  $\Delta\chi^2$  is the difference between the hypothesized model 2a and the competing models (alternative models 2b, 2c, and 2d) respectively. If the value ( $\Delta\chi^2/\Delta df$ ) is smaller than 3.84, the model will not be adapted.

Alternative model 2a is the hypothesized model (fully mediated model).

Alternative models 2b, 2c, and 2d are the partially mediated models. The path is from structure to EO, from cognition to EO, and from relation to EO.

Specifically, structure is found to be positively related to cognition and is also positively related to relation. Therefore, [Hypotheses 1 and 3](#) are supported. Consistent with [Hypothesis 2](#), cognition is positively associated with relation. As predicted in [Hypotheses 4 and 5](#), structure is positively related to knowledge management and relation is also positively related to knowledge management. In addition, a significant connection is found between cognition and knowledge management. [Hypothesis 6](#) is thus strongly supported. Finally, in support of [Hypothesis 7](#), knowledge management is positively related to EO. The results are presented in [Fig. 2a](#).

#### 4.3. Regression model for mediating effect

To test the mediating effect, this study further follows [Baron and Kenny's \(1986\)](#) procedure and uses its regression techniques to test our research [Hypotheses 8-1, 8-2, and 8-3](#). The results are presented in [Table 5](#). First, structure is found to be positively related to knowledge management in model 1. Model 5 indicates that structure is positively associated with EO. When knowledge management is added into the equation in model 6, no significant connection is found between structure and EO. Therefore, [Hypothesis 8-1](#) is supported, and the relationship between structure and EO is fully mediated by knowledge management. Second, cognition is found to be positively related to knowledge management in model 2. The coefficient of model 7 is significant, indicating that cognition is positively associated with EO. When knowledge management is added into the equation in model 8, the relationship between cognition and EO is still significant, while the significance level is reduced. [Hypothesis 8-2](#) is thus supported, and the results indicate that the relationship between cognition and EO is partially mediated by knowledge management. Third, relation is positively related to knowledge management in model 3. The coefficient of model 9 is found to be significant, indicating that relation is positively associated with EO. When knowledge management is added into the equation in model 10, the relationship between relation and EO is not significant. Thus, [Hypothesis 8-3](#) is supported, and the relationship between relation and EO is fully mediated by knowledge management. Additionally, this study further examines relationships between social capital (the average score of structure, cognition, and relation dimensions), knowledge management, and EO. As shown in model 11, social capital is significantly and positively related to knowledge management, and the influence of social capital on EO has a significantly positive effect in model 12. When knowledge management is added into the equation in model 13, the relationship between social capital and EO is still significant, although the significance level is reduced. As expected, knowledge management mediates the relationship between social capital and EO. Overall, the results offer support to [Hypothesis 8](#).

#### 4.4. Comparison of alternative models and test of effects

To further confirm whether knowledge management mediates the relationship between the three dimensions of social capital and EO, this study compares the hypothesized model shown in [Fig. 2a](#)

with several alternative models ([Aryee et al., 2002](#)). The mediated hypotheses will be supported if the fit of the hypothesized model is not improved by adding direct paths. Hypothesized model 2a is a completely mediated model. Alternative models 2b, 2c, and 2d are partially mediated models and add three paths: from structural dimension to EO, from cognitive dimension to EO, and from relational dimension to EO, respectively.

The results of [Table 6](#) emphasize that our hypothesized model (model 2a) fit the data better than the alternative models (models 2b, 2c, and 2d). The descriptions are as follows. First, the differences in the chi-square values ( $\chi^2$ ) between hypothesized model 2a and the other alternative models 2b, 2c, and 2d are 3.64, 1.07, and  $-0.09$ , respectively. These differences are all insignificant. Second, the fit of these alternative models (see alternative models 2b, 2c, and 2d) are almost identical to our hypothesized model (see hypothesis model 2a). Overall, the hypothesized model is more consistent with the data than any of the three alternative models. As shown in [Fig. 2c](#), although alternative model 2c provides an adequate fit to the data, the knowledge management–EO link has no significant effects after adding the path from cognition to EO. There is thus no mediated effect in the relationship between cognition and EO through knowledge management; nevertheless, the structure–EO link and the relation–EO link, fully mediated by knowledge management, are presented in [Fig. 2b](#) and [c](#), respectively. Furthermore, [Sobel \(1982\)](#) tests reveal that the indirect effects of structure and relation on EO are significant (relational dimension,  $z = 2.838$ ,  $p < 0.01$ ; structural dimension,  $z = 2.277$ ,  $p < 0.05$ ). Therefore, knowledge management mediates the structure–EO link and the relation–EO link. Again, [Hypotheses 8-1 and 8-3](#) are supported by the data in this study.

Following the suggestion of [Walumbwa and Schaubroeck \(2009\)](#), this study also examines the direct, indirect, and total effects in all of the alternative models. As shown in [Fig. 2a](#), structure, cognition, and relation dimensions are significantly related to knowledge management, and these effects in the predicted direction are significantly related to EO. [Hypotheses 8-1, 8-2, and 8-3](#) predict that social capital (i.e., structure, cognition, and relation dimensions) would be indirectly related to EO via the

**Table 7**

Direct, indirect, and total effects of social capital on knowledge management and EO.

Social capital	Knowledge Management	EO
Structure		
Direct effect	.60***	.14
Indirect effect		.20***
Total effect	.60	.34***
Cognition		
Direct effect	.49***	.44***
Indirect effect		.03
Total effect	.49***	.47***
Relation		
Direct effect	.54***	.00
Indirect effect		.23***
Total effect	.54***	.23***

\*\*\*  $P < 0.01$ .

mediated effects of knowledge management. Table 7 presents the direct, indirect, and total effects of structure, cognition and relation dimensions on EO. The results of Table 6 show that the structure and relation dimensions have a significant indirect effect on EO; however, the indirect effect of cognition on EO has no significance. Thus, Hypotheses 8-1 and 8-3 are supported, but Hypothesis 8-2 is not supported. In sum, several statistical examinations confirm that Hypotheses 1–7 and Hypotheses 8-1 and 8-3 are supported, with the exception of Hypothesis 8-2.

## 5. Conclusions and discussion

This study reveals that the configuration of a founding night market vendor's social capital can explain knowledge management behavior and effects of their entrepreneurial orientation, lending empirical support for tourism industry and configurational perspectives presented in entrepreneurship (e.g., Russell and Faulkner, 2004), knowledge management (e.g., Cooper, 2006) and social network (e.g., Racherla and Hu, 2010) studies. The results fit our main proposition; we found that the three dimensions of social capital assessed—social interaction, relationship quality, and customer network ties—had significant effects, directly or indirectly, on knowledge management and entrepreneurial orientation. Additionally, vendors' knowledge management behavior was associated with entrepreneurial orientation. The findings suggest that accessing diverse knowledge and applied new knowledge when introducing a new service or product are important sources of entrepreneurial orientation.

As Horng et al. (2012) suggested that there may exist different relationships among theories, we examined relationships among the three dimensions of social capital and showed how each of them contributed to entrepreneurial orientation. Among the three dimensions of social capital, the structural dimension represented by customer network ties was significantly associated with both of the other two dimensions, relational quality and social interaction. Furthermore, the cognition dimension of relational quality represents positive effects on the relational dimension of social interaction; our results confirmed a significant relationship among social capital with night market vendors that has not been examined in the tourism literature. This counterintuitive finding is interesting, as it answered some questions on the socialization process addressed but not yet solved in the previous research.

In viewing knowledge management from a social capital perspective, we draw attention to the importance of social relations that have previously been highlighted in tourism and hospitality and provide important implication for small medium-sized enterprise (SME) tourism and hospitality organizations management. First, SMEs lack resources and face high competition, such that they have to build an individual social network to transfer existing ideas and skill into knowledge and innovation to survive and grow (Martin, 2004). In this study, we have shown that individual social capital is likely to benefit small tourism and hospitality organizations, reinforcing the practical value of research that examines the antecedents of hospitality entrepreneurship. We must be thoughtful in our interpretation of this result; managers should try to build network ties to improve the quality of formal and informal relationships among members to acquire knowledge (Hu and Racherla, 2008), or they can reap the benefits of entrepreneurial orientation by selecting for, or developing, knowledge management systems (Jogaratham and Tse, 2006; Rimmington et al., 2009). Second, this study examined the mediating mechanism of knowledge management by empirically examining relationships between social capital and entrepreneurial orientation, and suggests that tourism and hospitality organizations select for, and develop, a social capital, particularly for knowledge diversity and applications that place a premium on entrepreneurial orientation. Although

Garud and Giuliani's (2013) recent experimental study alluded to this idea in the absence of empirical support, our study provides that support, particularly given our tourism and hospitality organization setting. Kim and Lee (2013) suggested that examining roles of knowledge management not only fills a gap in the knowledge management literature, but is also meaningful for hospitality organization strategies. The findings suggested that, to facilitate the link between social capital and enhancing entrepreneurial orientation, night market vendors or hospitality organizations' managers must first clarify the importance of the knowledge management process. Then, they should utilize social capital to cultivate a stronger knowledge management system that, in turn, will result in favorable entrepreneurial orientation. Finally, given its positive impact on both cognitive and structural aspects of social capital, knowledge management might be an effective way to build local social capital and produce economic return for tourism development (Liu et al., 2014a). Similar concepts were used in hospitality organization managers, who could not only use visible resources but also may extend to invisible factors, such as an emphasis on maintaining close social relationships with customers, as tools to encourage customers to revisit or share knowledge and increase the capability to apply new individual knowledge.

The findings of this study contribute to the tourism literature by developing an empirical model for explaining relationships among strategic social capital, knowledge management, and entrepreneurial orientation. Prior research has examined parts of these relationships (e.g., Casson and Della Giusta, 2007; Yang, 2007; Zhao et al., 2011), and also provided new insights by exploring social network perspectives, entrepreneurial orientation and knowledge management simultaneously, and assessing how these factors create the competitive advantage of small street vendors. Additionally, the results also show that different dimensions of social capital may mutually influence and contribute to knowledge management. This finding is reminiscent of the work of Shaw and Williams (2009, p. 331) who found that the mechanisms of social capital not only facilitate knowledge transfer in small-sized service retailers, but also reduce its transaction costs. Thus, we conclude that there is a need to incorporate a number of key concepts and discussed mutual relationships from the rapidly evolving research agenda in social capital concepts and knowledge management perspectives into tourism and hospitality research. In addition, this study is the derivation of empirical support for the model's prediction using data from the important tourism catalyzer of night market vendors in Taiwan. Although prior research recognizes the importance of the role of the night market in the tourism industry in Taiwan, few studies empirically examine the critical attributes and effects (Chang and Hsieh, 2006; Lee et al., 2008); however, the studies by Getz and Petersen (2005) and Tajeddini (2010) identify some key concepts of entrepreneurial orientation, and provide some empirical data with which to explore such ideas. The real phenomena of the small-sized service retailers or vendors is changing with high competition, and its structure has consequently become increasingly dynamic and changeable with respect to scope (products and service offered) ownership and management. Moreover, Jogaratham (2002) argues that there are considerable entrepreneurial orientation relationships and environmental contexts in the restaurant industry and SMEs, a feature explored by Jogaratham and Tse (2006) in the context of Asia. Unfortunately, such perspectives have largely failed to engage with, or even deploy, some of the key concepts of entrepreneurial orientation in researching the potential influential attributes of social capital and knowledge management between different focuses of the hospitality and tourism organizations. The results prove efficacy of the use of the social capital of social interaction, relationship quality, and customer network ties to explain the vendor's entrepreneurial orientation, highlighting the criticality of attributes of the Taiwanese

night market. Overall, the findings of this study fill a gap in the tourism literature, which is the lack of empirical examinations of the relationships between social capital, knowledge management, and entrepreneurial orientation using the example of a night market vendor in Taiwan.

Several limitations of this study include the following. First, the sample is collected from Taiwanese night markets; implications from a single country may not be able to cover the situation of other developing economies. Future studies may consider collecting data from various countries to achieve more generalizable research findings. Second, this study relies on self-reported data from owners of vendors; therefore, it may involve a common method variance (CMV). Harman's single-factor test, a widely adopted post hoc remedy, was used to estimate whether our data had a CMV problem or not (Podsakoff and Organ, 1986). The results showed that the first factor accounted for only 10.34% of variance among the variables. This implied that there were no serious CMV problems in our data. Third, knowledge management only includes knowledge diversity and knowledge application; thus, future scholars may further focus on knowledge acquisition and knowledge sharing.

To conclude, social capital is a valuable asset for vendors to exhibit the entrepreneurial orientations of innovativeness, risk taking and opportunity discovery. The viewpoints of this study highlight the crucial importance of the mediating role of knowledge management when examining the relationship between social capital and entrepreneurial orientation.

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