The role of network position, tie strength and knowledge diversity in tourism and hospitality scholars' creativity

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ABSTRACT

This study proposes a model of a structural hole, with knowledge diversity as a moderator that influences the quality and quantity of creativity outputs. The proposed models used a sample of 2316 international academic publications listed in social science citation indexes by 1661 tourism and hospitality scholars over a 32-year period across different regions of China (e.g., Mainland China, Hong Kong, Taiwan, and Macao). The results showed a curvilinear pattern of the relationships between the position of structural holes with the quantity and quality of creativity output. In addition, we found that knowledge diversity may positively influence creativity, as it performs the negative role of moderating the relationships between network positions and the quality and quantity of creativity outputs.

1. Introduction

Recently, practitioners and academics have identified creativity as the foundation of organization innovation. At the organizational level, employee creativity is a foundational attribute associated with an increase in the innovative capability for organization and competitiveness and is one of the most important factors for individual career success (Liu, Gong, Zhou, & Huang, 2017; Perry-Smith & Mannucci, 2017). In the academic field, scholars' creativity can often be measured by their academic publications, which not only highly correlate to individual academic reputation but also significantly influence their promotion and research funding applications (Garcês, Pocinho, & Jesus, 2017; Li & Liu, 2016; McFadyen & Cannella, 2004). Indeed, the academic literature on creativity describes the need for knowledge exchange through individual networks that share information and develop knowledge inputs through interaction with others to develop creativity (Hahn, Lee, & Lee, 2015). In measuring the relative contributions of creativity and social network theory, researchers have begun to explore how social ties and heterogeneous knowledge may provide significant evidence supporting the importance of creativity (Huang & Liu, 2015). Notwithstanding the significant contributions that have been made by previous studies, in the tourism and hospitality literature, most studies on creativity focused on employees (Tsai, Horng, Liu, & Hu, 2015), tourist attractions (Leiper, 1990), destinations (Prentice & Andersen, 2003) and organizations (Dredge, 2006). Little is known about how creativity is developed by knowledge researchers or workers in the fields of tourism and hospitality studies. Therefore, this study aims to fill the gaps and extend the of understanding of how the mechanisms that underlie earlier theoretical and empirical work in the existing tourism and hospitality literature have failed to show a relationship between network structure, tie strength, knowledge diversity and creativity in general.

This study combines the social network, knowledge management and creativity literary streams, and suggests that individual academic network structures may be able to influence the development of their internal capabilities to enhance creativity. Although interpersonal relationships affect the quality of an idea, the appropriate feedback can improve the idea's chances for adoption (Kijkuit & Van Den Ende, 2007). Interpersonal relationships also involve the potential costs of incompatible behaviors and attitudes, which can result in deleterious consequences to creativity (Bizzi, 2013). As Liao and Phan (2015) note, interpersonal relationships that span structural holes are better situated to control information flows and to exploit novel opportunities because they often lead to the combination of existing concepts. More importantly for this study, we assert that a shared common language, experience, and diverse information may help individuals toward powerful positions from which they can negotiate the costs and connections that lead to value-creation.

This study addresses a number of important aspects that have been overlooked by the existing literature. Firstly, knowledge workers or researchers can help an organization to identify new market opportunities (McFadyen & Cannella, 2004), increase the rate of new product

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introduction (Smith, Collins, & Clark, 2005) and increase knowledge transfer and management in tourism organizations (Shaw & Williams, 2009). Therefore, understanding the activities of knowledge workers or researchers is not only beneficial for organizations but also for advancing the core knowledge of individual successful careers in higher education. Although previous literature has demonstrated the creativity process and highlighted the importance of creativity in individual success (Zhu, Gardner, & Chen, 2018), using the social network perspective in explanations of individual creativity and demonstrating how different network positions may influence individual creativity have not been fully covered in the existing literature (Liu & Gan, 2018). Moreover, knowledge workers, such as scholars or scientists, discuss the quality and depth of the creation process, which not only provides significant evidence to fill the previous gaps in the social network literature (McFadyen & Cannella, 2004) but also reveals the success in fully considering the implications of professional relationships (Phelps, Heidl, & Wadhwa, 2012). Furthermore, as Seibert, Kacmar, Kraimer, Downes, and Noble (2017) note, interpersonal networks and critical network position are required for knowledge workers to share a language, produce strong norms and shared experiences to generate creative ideas among network members, and then integrate the information gained from the relationships, thus limiting openness to new information and diverse views. Therefore, this study uses the social network and knowledge management perspective, sampling tourism and hospitality scholars with a longitudinal period to address researcher–coworker role-relationships in explaining creativity. Secondly, we advance creativity theory in general, and the literature on knowledge network in particular, by providing insights into the previously neglected issue of individual professional network mechanisms. In explaining how individuals obtain network positions, tie strength, and knowledge diversity and how they contribute to creativity performance, the existing research has focused on how organizations support creativity performance and what individuals can do (Tsai et al., 2015). However, to fully understand individual creativity and the influences of network structure, it is necessary to further discover scholars' co-operation strategies and co-authorship relations (Leydesdorff, Park, & Wagner, 2014). This study addresses these issues and offers empirical evidence and additional explanations for scholars' creativity measurement and suggestions for how colleagues or coauthors can contribute and have an impact on creativity. Thirdly and finally, the role of tie strength and knowledge diversity that is provided by colleagues and coauthors may have a different effect on the quantity and quality of creativity. Therefore, the present study adopts the concept that diverse knowledge and tie strength will have direct and different moderating effects on the link between the position of structural holes and creativity. For example, we contribute to knowledge management theories of identification by shedding light on the potential impacts that may

arise if knowledge diversity does not fit an individual's absorptive capability. This opens up a new perspective on the benefits of heterogeneous knowledge and identity conflicts and helps us to understand how to observe obtrusive attributes that may influence transitions and unobtrusive behavior in others.

Therefore, to investigate tourism and hospitality scholars' creativity generation process in different regions across China, this study relies on the perspective of social network theory, knowledge management, and network ties in relation to researchers' depth and quality of creativity with longitudinal period observations. Until now, the connection between heterogeneous knowledge and structural holes' advantages and disadvantages mediated by the positive influences of tie strength and average tie strength in an individual network structure has been an article of faith. As mentioned above, although tie strength is recognized for its obvious benefits in accessing critical resources and although heterogeneous knowledge will influence creativity independently and jointly, few rigorous empirical investigations have been conducted on the micro-social processes that exploit network structure or on how individual exposure to diverse knowledge and network ties recombines to produce a wellspring of creativity and innovation (Rodan & Galunic, 2004). The following section presents a comprehensive literature overview of social networks, network ties and knowledge management to develop the theoretical argument and main hypotheses. Next, the method section describes sample selection, variable definitions and research methods for regression usage. The results section presents the empirical results of our hypotheses tests in separate regions of China to determine the robustness of the findings. The final section concludes with a discussion of the implications of our empirical findings as well as limitations and suggested directions for future research.

1.1. Literature review and hypothesis development

1.1.1. The concepts of creativity in the field of academia

There has been a considerable increase in interest in the role of creativity in improving one's capacity to survive in the highly competitive academic environment. Since the 2000s, Chinese academics have begun to internationalize and aggressively increase their cooperation activities, attending academic conferences and maintaining and building their personal networks. Additionally, academic publication growth became more rapid after 2010 (Chen & Liu, 2012; Li & Liu, 2016), as seen in the trends shown in Fig. 1. Such trends indicate the increasing importance of this issue for Chinese sociality and the needs of knowledge workers. Discussing different regions in tourism and hospitality research provides an appropriate setting to fill the literature gap and to provide and identify new tourism-related research trends, which can in turn provide new insights that extend beyond those of the previous studies.
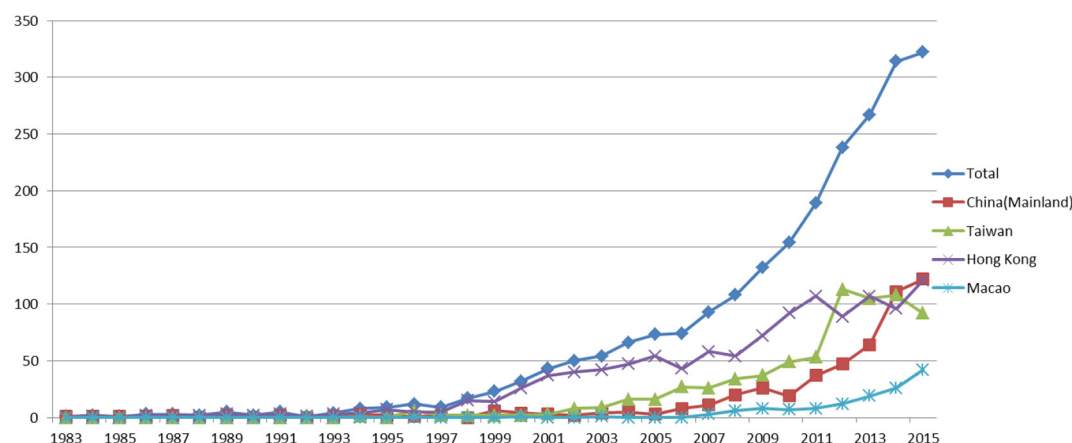

Fig. 1. Tourism and hospitality publication trends between 1983 and 2015.