

Print ISSN: 1738-3110 / Online ISSN 2093-7717  
<http://dx.doi.org/10.15722/jds.15.6.201706.13>

# Social Network Effects on Travel Agency Employees' Occupational Outcomes: Innovation Behavior as a Mediator

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Received: May 4, 2017. Revised: May 18, 2017. Accepted: June 15, 2017.

## Abstract

**Purpose** - The current study aims to examine the effect of social network factors on travel agency employees' occupational outcomes such as job performance and job satisfaction through innovation behavior in a comprehensive model.

**Research design, data, and methodology** - Based on a theory of social network, the concept of social network was assessed by three factors: a) network size, b) network range, and c) tie strength. To test the proposed hypotheses, structural equation modeling (SEM) was employed based on data from 197 travel agency employees in Korea.

**Result** - The results showed that the associational activity of network size had a positive effect on innovation behavior, while the network range of network size had a significant negative effect on innovation behavior. Subsequently, innovation behavior positively influenced on job performance and job satisfaction, respectively.

**Conclusions** - The results offer some insights into the extended model and have important managerial implications for Korean travel agencies. More specifically, considering diverse domains of social network and organizational research, this study advances critical utility of social network factors in a high facilitating level of innovation behavior, which can help travel agency employees promote their job performance and job satisfaction.

**Keywords:** Social Network Theory, Network Range, Tie Strength, Innovation Behavior, Job Performance, Job Satisfaction.

**JEL Classifications:** C42, C52, D23, L83.

## 1. Introduction

The tourism industry is an ever-changing industry. Accordingly, the continuous effort to provide customers with innovative services is crucial for firms in the industry. To facilitate high-quality services for customers, employees are regarded as the significant linchpin for innovative service generation and adaptation (Duerden, Lundberg, & Shurma, 2016; Lee & Hyun, 2016; Jadhav, Seetharaman, & Rai, 2017). Given this phenomenon, travel agencies attempt to reflect an emerging communication trend (e.g., using social network activities) in their communication strategies, which helps not only to foster traveler's satisfaction but also employees' job performance. In this regard, a significant body of management theory and literature highlight that innovation is considered a critical catalyst for both individual and organization's performance (Jiménez-Jiménez & Sanz-

Valle, 2011; Mattsson & Orfila-Sintes, 2014).

Pursuing innovation may yield employees' positive willingness to offer remarkable services for customers and overcome high risk-taking tasks in a service context. Rogers (1995) spotlighted that innovation helps individuals achieve desired outcomes by overcoming their perceived uncertainty toward unfamiliar tasks in organizations. A recent study also posited that employees' innovation results from their efforts to mitigate specific types of uncertainty faced in workplaces (Lee, 2015). In an extended knowledge approach, integrating a social network theory and the role of innovation is of considerable importance for organizational performance. Specifically, those who acquire a variety of desired information may reduce the level of uncertainty, which in turn leads to their positive attitudes toward innovation behavior (Kaasa, 2007; Rogers, 1995). Therefore, obtaining useful and diverse information from a variety of internal sources is of paramount importance so as to develop organizations' internal social network strategies that help facilitate not only individual's innovation behavior but also occupational outcomes. (Lee, Cho, & Hwang, 2013).

Given the importance of understanding employees'

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\*\* Acknowledgement: This work was supported by Kyonggi University Research Grant 2014.

innovation behaviors in tourism firms, a great number of studies have explored prominent antecedents of innovation behavior in tourism research (Tsaur, Yen, & Yang, 2011). However, the majority of studies focused mostly on individuals' job characteristics such as job complexity (Oldham & Cummings, 1996; Wang, Tsai, & Tsai, 2014), job autonomy (Wang & Cheng, 2010; Yang & Choi, 2009), and skill variety (Chang, Gong, & Shum, 2011; Chen, Shih, & Yeh, 2011) as determinants of employees' innovation behaviors. However, innovation is inevitably associated with uncertainty related to expected outcomes. The degree of individual's innovation depends heavily on how effectively reduce the uncertainty. In this sense, to facilitate individual's innovation activity, more attention needs to be given to the means and strategies to gain diverse and helpful information. This reveals the necessity of tapping employees' needs and wants based on the paradigm of reflecting the advantages of social network activities in their successful performance. Therefore, it is required to examine the role of social network factors (i.e., network size, network range, and network tie strength) in determining employees' innovative behaviors and organizational outcomes in tourism firms (Bhandari & Yasunobu, 2009; Lee, 2011; McFadyen & Cannella, 2004; Zheng, 2010). In addition, as Li and Hus (2015) pointed out, even though there are different levels of innovation: group, firm, and individual level, most innovation studies has been conducted with perspective of group or firm level in manufacturing industries and less intention has been on innovation behavior of individual level in service industry.

To reduce the research gap, the current study proposes a comprehensive research model underlying employees' social networks that allow them to obtain novel knowledge and information, which in turn help generate employees' innovative service implementation in travel agencies. More specifically, the current study aims to extend an empirical model that explores the causal relationship between three types of social networks (i.e., size of network, network range, and tie strength), innovation behavior, occupational outcomes (job performance and job satisfaction). The results offer valuable insights into the extended model and have important managerial implications for Korean's travel agencies.

## 2. Literature Review

### 2.1. Social network theory and innovation behavior

Social network theory encompasses a form of social relationships when it comes to nodes (i.e., individuals) and ties (i.e., connections). A key function of social network theory is to understand the extent to which individuals or organizations interact with others in collaborative information flow (Adler & Kwon, 2002; Bhandari & Yasunobu, 2009;

Burt, 2000; Lin, 2001). In a market situation where individuals are not optimally interacted, a social network plays a critical role as a platform for individuals in obtaining informational resources that are internally limited. According to Monge, Hartwich, and Halgin (2008), the utilization of social networks originates from social contagion theory indicating "an individual's decision to adopt an innovation depending on other actors' attitudes, knowledge, or behaviors concerning an innovation" (Tscherring & Mathiassen, 2010). In this regard, a cognitive process model showed that those who have fewer perceptions towards ties with peers are more likely to access collaborative information sources as compared to those who perceive fewer tie connections (Lin, 2001). Altogether, the primary role of social networks is to enable individuals to obtain more valuable information sources and perceive a higher level of innovation behavior in high performance.

Innovation refers to a gradual or radical change in thought, process or services by creating and implementing new ideas (Hjalager, 2010; Rogers, 1995). Given the literature on employees' willingness to perform innovative behaviors in the domain of tourism and hospitality, Li and Hsu (2016) defined innovative behavior as "an individual's intentional introduction of new products/services or new ways of doing things through the process of idea generation and implementation" (p.2821). Following this, a recent study regarded innovation behavior as a procedural outcome in multiple cognitive processes (Li & Hus, 2016), which is followed by the recognition of need arousal that urges individuals to obtain desired information and knowledge that helps solve challenges encountered (Yang & Cho, 2015). More specifically, innovation behavior is utilized as proxy for measuring individual's beneficial novelty performance. In this regard, gaining new information from a variety of interactive network sources is an essential action for promoting individual's innovation behavior at an organizational level.

Theoretically, the decision to adopt innovation implementation depends heavily on the diffusion of information (Kaasa, 2007; Rogers, 1995). The formation of individual's innovative behavior can be determined by their willingness and ability to overcome and alleviate the perceived uncertainty toward a problematic event or situation confronted (Talke & Heidenreich, 2014). Consistent with this, Rogers (1995) pointed out the phenomenon that individuals attempt to interact with others through social networks so that they can provoke innovative implementations for solving uncertain problems faced in a given situation. Some studies addressed that everyone can never possess the same amount of information and sources that are required for creating innovation due to their different opportunities to access a variety of sources embedded in social relations (Chae, Lee, Hwang, & Park, 2015; Greve & Salaff, 2001; Lin, 2001).

More importantly, measuring social networks are limited by using a single proxy since individuals may encounter

different structures of social networks such as strong and weak ties, bonding and bridging ties, and dense network. This implies that firmly-agreed types of social network measures should be utilized in empirical models. However, few studies have adopted multidimensional factors of social networks in different contexts (Lee, 2015; Sparrowe, Liden, Wayne, & Kraimer, 2001; Tortoriello, Reagans, & McEvily, 2012). Therefore, the current study developed the three factors of social networks, namely, network size, tie strength, and network range.

### 2.1.1. Network size and innovation behavior

Network size consists of the sub-dimensions of contact size, job-related associational activity, and non-job-related associational activity (Burt, 2000), and it is a critical component of social networks, helping individuals engages in innovation generation (Zheng, 2010). Some studies posited that the concept of network size reveals the extent to which individuals have mutual relationships. Network size has a potential advantage for promoting individuals' chances to generate new ideas and resources based on interactive information-sharing in innovation adoption (McFadyen & Cannella, 2004; Nahapiet & Ghoshal, 1998). In this regard, some studies verify that those with high connections to other groups (e.g., non-redundant ties) are likely to attain desired sources and perceive a higher level of innovation (McFadyen & Cannella, 2004; Zheng, 2010). Therefore, the following hypothesis proposed:

- <H1a>** The contact size of network size had a significant effect on innovation behavior in the context of travel agency.
- <H1b>** The job-related associational activity of network size has a significant effect on innovation behavior in the context of travel agency.
- <H1c>** The non-job-related associational activity of network size has a significant effect on innovation behavior in the context of travel agency.

### 2.1.2. Network range and innovation

The range of social networks encompasses the two sub-dimensions of departmental range and position range (Cross & Cummings, 2004; Seibert, Kraimer, & Liden, 2001), and refers to the extent to which how much individuals perceive networks as pertaining to diverse sources in terms of external relationships as sources for innovation generation and adoption (Bhandari & Yasunobu, 2009). The advantage of network range is clear that knowledge-sharing across a boundary, inside, or outside of an organization helps employees experience value co-creation in mutual supplementation (Tortoriello et al., 2012). This highlights that employees have a chance to obtain their desired information and knowledge from mutual interactions of different internal

and/or external groups (e.g., departments, organizations, etc.). As a result, they can easily compare different tasks in order to attain the goal in a given circumstance (Rodan & Galunic, 2004; Tsai & Ghoshal, 1998).

More importantly, using the concept of network range consisting of both departmental range and position range may help employees experience heterogeneous and diverse information/knowledge sources, which in turn improve the ability to restructure their existing knowledge and obtain new information in an organization (Bhandari & Yasunobu, 2009). In this regard, a broader network of external relationships plays a critical role in the formation of employees' innovation behavior based on their perceptions toward the usefulness of obtaining external sources and information that is not internally accessible (Cohen & Levinthal, 1990). Therefore, the following hypothesis is proposed:

- <H2a>** The departmental range of network range has a positive effect on employees' innovation behavior in the context of travel agency.
- <H2b>** The position range of network range has a positive effect on employees' innovation behavior in the context of travel agency.

### 2.1.3. Network tie strength and innovation behavior

The valid utility of tie strength originates from Marsden and Campbell (1984) in human relationships. Tie strength refers to "a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie" (Granovetter, 1973). Given the proposed definition of tie strength, subsequent studies regard tie strength as the degree of relational intimacy between peer members. For example, Stanko, Bonner, and Calantone (2007) posited that the three properties of tie strength (i.e., reciprocal services, mutual confiding, and emotional intensity) may serve as drivers of buyer commitment to selling organizations. Especially, relational tie has been classified into weak (or weaker) tie and strong (or stronger) tie (Levin & Cross, 2004; Reagans & McEvily, 2003; Tortoriello, Reagans, & McEvily, 2012).

Despite of the fact that each type of tie strength has its own function with regard to gaining desired information, weak ties are utilized as the concrete component of accessing a wide range of sources that are not often circulated in strong tie because it acts as stronger driver of innovation generation and adoption (Levin & Cross, 2004). That is, those who perceive weak ties are expected to perform innovative behaviors at an organization (Ruef, 2002). In an organizational networking model, Ruef (2002) proposed that those who are more connected to social groups (weak ties) are more likely to perform innovative behaviors as compared to strong tie groups. In an extended model, McFadyen and Cannella (2004) demonstrated that individuals

would have less chance to seek elusive sources/ideas that help create new innovations as tie strength is increased. Given the aforementioned theoretical evidence, the following hypothesis is proposed:

**<H3>** The weaker the tie strength, the higher the degree of employees' innovation behavior.

### 2.2. Relationships between innovation behavior, job performance, and job satisfaction

Employees' occupational outcomes are mainly divided into twofold: job performance and job satisfaction (Janssen & Van Yperen, 2004; Judge & Bono, 2001). First of all, Campbell, McCloy, Oppler, and Sager (1993) defined job performance as a synonymous with behavior which is something that an individual actually does and can be observed. The concept of job performance reveals employees' actions and behaviors when it comes to attaining their goal as well as organizational expectations (Rotundo & Sackett, 2002). Job performance is theoretically linked to employees' innovation in functionally heterogeneous teams (Somech, 2006). Another aspect of occupational outcomes, job satisfaction refers to individuals' overall satisfaction with everything regarding their job-related activities in an organization (Kim & Brymer, 2011; Shipton, West, Parkes, Dawson, & Patterson, 2006).

In an organizational model for determining occupational outcomes, the concept of innovative work behavior is a salient factor pertaining to employee's abilities with regard to their procedural skills and performance at work (Gong, Huang, & Farh, 2009). Conceptually, innovative work behavior is associated with introducing, developing, and applying new ideas, which in turn influence employees' job satisfaction and performance (Shipton et al., 2006; Somech, 2006). As such, a growing body of research evidence has documented that employees' ability to possess innovation works and services helps facilitate the magnitude of their occupational performance in an efficient and effective manner (Benner & Tushman, 2003).

More importantly, Tatikonda and Rosenthal (2000) posted that executing successful innovation practices may allow employees to perform their organizational tasks in a high-efficiency environment. That is, new task activities derived from innovation orientation are highly associated with a higher level of job satisfaction and job performance (Benner & Tushman, 2003). As a result, the implementation of organizational innovation practices should be considered a key for employees' occupational outcomes (e.g., job performance and job satisfaction) (Kalmi & Kauhanen, 2008; Park, Tseng, & Kim, 2016). Thus, given the aforementioned theoretical evidence, the following hypothesis is suggested:

**<H4>** Employees' innovation behavior has a positive effect on job performance

**<H5>** Employees' innovation behavior has a positive effect on job satisfaction

An expectancy-based theory reveals that individual employees' performance may lead to job satisfaction in a cognitive model (Judge, Thoresen, Bono, & Patton, 2001). Job performance is an index for detecting employees' perceived outcomes for given task achievements from a quantitative and qualitative perspective. This can be utilized for determining the degree of employees' rewards (e.g., promotion and monetary or non-monetary incentive) that are received from an organization, which in turn lead to their job satisfaction.

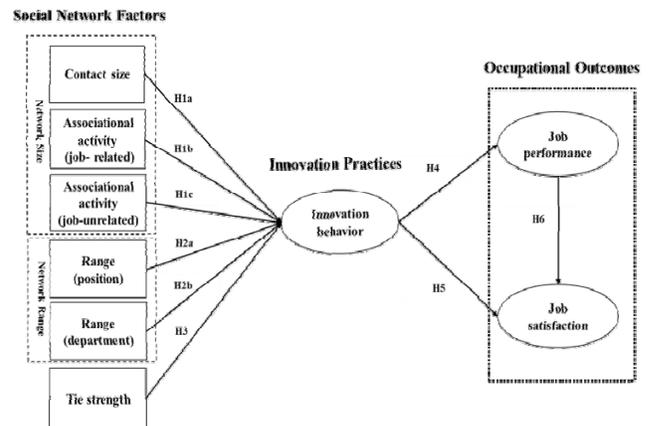
Considering the aforementioned literature on the job performance-job satisfaction relationship, numerous studies verified that there is a strong connection between job performance and satisfaction (Gu & Chi, 2009; Judge & Bono, 2001; Karatepe, 2012). More importantly, a set of organizational studies using a meta-analytic method has demonstrated the relationship between job performance and satisfaction (Davari & Ranjuba, 2012; Judge, Thoresen, Bono, & Patton, 2001; Petty, McGee, & Cavender, 1984). Therefore, the following hypothesis is proposed:

**<H6>** Employees' job performance has a positive effect on job satisfaction.

## 3. Methodology

### 3.1. Research model

As shown in <Figure 1>, this study proposed the research model to examine the effect of individual's social network on employees' job performance and job satisfaction through their innovative work behavior. Specifically, a total of six hypotheses developed in this study were included in the proposed theoretical framework.



<Figure 1> Proposed Theoretical Framework

### 3.2. Data collection

The proposed research model was established by incorporating previous studies highlighting study constructs in a variety of research domains. The model was empirically tested using data from travel agency employees. Through a mail survey method, data were collected over a three-month period from August to November 2015 based on a total of 234 Korean employees from three primary regions (namely, Seoul, Busan, & Gyeonggi province) possessing the majority of travel agencies (about 61% of total travel agencies) in Korea (Korea Tourism Association, 2014). In a specific distribution procedure, general managers of these travel agencies were asked to distribute the self-administrated questionnaire to the available sample. After eliminating the incomplete responses ( $n=37$ ), 197 responses were used for data analysis.

### 3.3. Measurement

The first section of questionnaire was designed to measure the degree of employees' personal social network. Based on prior studies, this study chose the most often-used components of social network (Lee, 2015; Sparrowe, Liden, Wayne, & Kraimer, 2001; Tortoriello et al., 2012): a) size of network, b) tie strength, and c) network range. First, network size was assessed by three measurements: a) contact size which is measured by the total number of contacts from whom an individual employee gain information, or with whom an employee discuss various topics, b) job-related associational activity which is measured by the number of job-related memberships an employee maintained in various voluntary organizations, and c) the number of non-job-related associational activity.

Second, the network range was divided into a) 'departmental range' which is computed by the number of relationships working in other departments over all relationships and b) 'position range' which is computed by the number of relationships in a higher or lower position over all relationships (Cross & Cummings, 2004; Reagans & McEvily, 2003).

Third, in order to measure the strength of tie, respondents were asked to choose a maximum of four most-helpful or influential people in their organization out of all contact persons they indicated. Then, respondents were asked to identify four attributes of each influential tie with 5 point Likert scale with regard to strength of ties (Granovetter, 1973; Hansen, 1999; Reagans & McEvily, 2003, Williams, 2005): a) the frequency of contact (e.g., I often meet that person); b) the degree of social activity participation (e.g., I often participate in social activity with that person); c) the frequency of social talk; d) the frequency of social meeting not related to job; and e) the degree of job-related information and knowledge sharing. The degree of tie strength is represented by the average score of the

influential tie indicated.

Fourth, innovation behavior was measured by most widely used measurement developed by Scott and Bruce (1994) and Hu, Horng and Sun (2009). It consists of four items with five-point likert scale: idea generation and exploring new opportunities, championing, and application.

Fifth, job performance was measured by an individual employee's self-reported perception of own job performance. Based on Babin and Boles (1998), six items with five-point Likert scale were adopted such as goal achievement, ability to do job, the degree of job knowledge and so on compared to other employees.

Lastly, job satisfaction construct was composed of three items with five-point Likert scale (e.g., All in all, I am very satisfied with my present job) (Cammann, Fichman, Jenkinsand & Kleshob, 1979; Kim, Murrmann, & Lee, 2009)

## 4. Results

### 4.1. Demographic characteristics of respondents

With regard to respondents' demographic information, of the 197 survey participants, 38.1% (74 respondents) and 61.9% (120 respondents) were male and female. The majority of respondents ranged from 20 to 49 years accounting for 96% of respondents. 65% of respondents (124) were 4-year college graduates. The majority of respondents' workplace were located in Seoul (about 76%) followed by Kyounggi province (11.45%). With respect to working experience, the nearly half of employees belongs to 2 to 5 years (25.7%) and 5 to 10 years (22.5%).

### 4.2. Confirmatory factor analysis

Prior to analyzing structural equation model, a confirmatory factor analysis was conducted with maximum likelihood estimation method using AMOS. The result showed good fit for four-factor model,  $\chi^2=164.516$  ( $df=63$ ,  $p<0.001$ ), CFI=0.933, IFI=0.934, NFI=0.897, TLI=0.918, RMSEA=0.09. The  $\chi^2/df$  value is 2.62 fell within a range of acceptable values two to five (Bollen, 1989), as well as reaching the less than two level proposed by Byrne (2013). Factor loadings between measurement items well all signification ( $p<0.01$ ) ranging from 0.718 to 0.898. Composite reliability was extracted to test consistency in measurements and the findings indicated that the value is fell between 0.88 and 0.90 indicating acceptable reliability for the construct measurements. Discriminant and convergent validity were also established since the average variance extracted (AVE) of all the constructs exceeded the minimum criterion of 0.50 (Fornell & Larcker, 1981).

**<Table 1>** Correlations among salient constructs

	CS(ln)	A1	A2	R1	R2	TS	IB	JP	JS
CS(ln)	1								
A1	.108	1							
A2	.236**	.297**	1						
R1	.505**	.101	.294**	1					
R2	-.085	-.009	-.027	.012	1				
TS	.465**	.207**	.276**	.180*	-.091	1			
IB	.117	.268**	.241**	-.009	-.213**	.124	1		
JP	.077	.058	-.006	-.074	-.055	.159*	.207**	1	
JS	.104	.336**	.235**	.029	-.222**	.209**	.506**	.170*	1
Mean	.809	1.21	1.94	0.443	0.296	2.799	3.529	3.714	3.349
SD	.440	2.013	2.669	0.295	0.296	0.83	0.684	0.604	0.767

\*p<0.05, \*\*p<0.01

CS: contact size; A1: associational activity(job-related); A2: non-job-related associational activity, R1: departmental range, R2: position range, TS: tie strength, IB: innovation behavior, JP: job performance, JS: job satisfaction

### 4.3. Correlations among salient constructs

<Table 3> showed the correlations among salient constructs. The degree of correlation between innovation and job satisfaction was strongest. Interestingly, both types of network range were negatively associated with innovation behavior and job satisfaction. Two constructs (job satisfaction and job performance) for occupational performance were positively associated with innovation behavior.

**<Table 2>** Results of confirmatory factor analysis

Construction	Item	Standardized Loadings	t-value	Composite Reliability	AVE
Innovation behavior	I1	.831	fixed	0.880	0.645
	I2	.781	12.688**		
	I3	.854	13.836**		
	I4	.743	11.509**		
Job performance	P1	.718	fixed	0.900	0.599
	P2	.769	10.304**		
	P3	.755	10.115**		
	P4	.814	10.898**		
	P5	.843	11.260**		
	P6	.738	9.887**		
Job satisfaction	S4	.776	fixed	0.882	0.714
	S1	.898	12.692**		
	S2	.856	12.442**		

Note: Goodness-of-fit indices:  $\chi^2=164.516(df=63, p<0.001)$ , CFI=0.933, IFI=0.934, NFI=0.897, TLI=0.918, RMSEA=0.091

### 4.4. Findings of hypotheses testing

The structural equation modeling (SEM) was tested to

examine the relationships between salient constructs used in this study. The result showed an overall acceptable degree of good fit to the data:  $\chi^2=233.543(df=129, p<0.001)$ , CFI=0.940, IFI=0.942, NFI=0.880, TLI=0.912, and RMSEA=0.064. The specific findings regarding the six hypotheses proposed are as follows.

First, contact size as a sub-dimension of network size did not have a significant positive effect on innovation behavior ( $\beta=.119, p>0.05$ ). Therefore, <hypothesis 1a> was rejected. Meanwhile, job-related associational activity ( $\beta=.248, p<0.01$ ) and non-job-related associational activity ( $\beta=.248, p<0.01$ ) had significant positive effects on innovation behavior, verifying that <hypothesis 1b> and <hypothesis 1c> were supported. Second, departmental range ( $\beta=-0.164, p<0.05$ ) and position range ( $\beta=-.217, p<0.01$ ) had significant negative effects on innovation behavior. Unlike expectation, however, the causal relationships between both types of network range and innovation behavior showed coefficients ( $\beta$ ) in reverse sign. In this regard, <hypothesis 2a> and <hypothesis 2b> were rejected.

Third, the relationship between tie strength and innovation behavior was identified. Unlike our expectation, tie strength did not have a significant positive effect on innovation behavior, showing coefficients ( $\beta=-.008, p>0.05$ ) in reverse sign, and <hypothesis 3> was thus rejected. Fourth, in terms of the employees' innovation behavior-job performance relationship and the employees' innovation behavior-job satisfaction respectively, employees' innovation behavior had significant positive effects on job performance ( $\beta=.632, p<0.01$ ) and job satisfaction ( $\beta=.313, p<0.01$ ). Therefore, <hypotheses 4> and <hypotheses 5> were accepted. Lastly, job performance did not have a significant positive effect on job satisfaction ( $\beta=.014, p>0.05$ ). <Hypothesis 6> was thus rejected.

**<Table 3>** Summary of findings

Hypothesized Path	Standardized Coefficients	t-value	Results
H1a: Contact size → innovation behavior	.119	1.342	Rejected
H1b: Job-related associational activity → innovation behavior	.248	3.378**	Supported
H1c: Job-unrelated associational activity → innovation behavior	.208	2.717**	Supported
H2a: Network range 1 → innovation behavior	-.164	-1.998*	Rejected
H2b: Network range 2 → innovation behavior	-.217	-3.119**	Rejected
H3: Tie Strength → innovation behavior	-.008	-.105	Rejected
H4: Innovation behavior → job performance	.632	7.312**	Supported
H5: Innovation behavior → job satisfaction	.313	3.271**	Supported
H6: Job performance → job satisfaction	.014	.821	Rejected
Goodness-of-fit indices: $\chi^2=233.543$ (df=129, $p<0.001$ ), CFI=.940, IFI=.942, NFI=.880, TLI=.912, and RMSEA=.064 $R^2$ (innovation behavior)=.200; $R^2$ (job performance)=.405; $R^2$ (job satisfaction) =.100 * $p<0.05$ , ** $p<0.01$			

## 5. Discussion and Implications

Using social network theory, this study extends the literature on employees' occupational outcomes by highlighting network size (contact size, job-related associational activity, and non-job-related associational activity), network range (departmental range and position range), and tie strength, and innovation behavior in the context of travel agency. Considering diverse domains of social network and organizational research, this study advances critical utility of social network factors in facilitating a high level of innovation behavior, which can help travel agency employees promote their job performance and job satisfaction.

According to the results, the job-related associational activity and non-job-related associational activity of social network had positive effects on employees' innovation behavior, which is consistent with the theoretical view of (Pittaway, Robertson, Munir, Denyer, & Neely, 2004), who revealed the significant role of networking activities in innovation generation. Particularly, those with a higher level of job-related associational activity (e.g., joining travel clubs) are more likely to perform innovation behavior, and subsequently perceive a positive sense of job performance and job satisfaction. This implies that employees' associational activities in multiple organizations may permit them to make interactive communications with other members who have similar interests but diverse backgrounds in a variety of fields, which in turn lead to their innovation practices (Doh & Acs, 2010; Kaasa, 2009). In this sense, the study proposes employees' active participation of online-based communities. Social relationships can be formed from not only face-to-face meetings but also communications on online. Therefore, employees can foster their involvement in associational activity by participating in numerous online-based associations or communities related to their job.

The concrete support for the network size-innovation behavior relationship indicates that the model of social network factors may be applicable for future research on the travel agency industry. The results reveal an insignificant effect of contact size on innovation behavior ( $\beta = .119$ ), which is inconsistent with the findings of previous studies demonstrating the critical role of contact networks in managerial innovation (Rodan, 2002). This finding may stem from the phenomenon that the frequency of employees' contact networks is restricted by their time constraints. This implies the necessity of organizational supports (e.g., offering regular discussion sessions for mutual interactions) for employees in maintaining and extending relationships. As a result, employees are expected to not only perform innovative services but also perceive a higher level of occupational satisfaction.

The results verify that network range ( $\beta = -.164$  for departmental range and  $\beta = -.267$  for position range) had a negative effect on innovation behavior, which is inconsistent with the theoretical view of Cohen and Levinthal (1990), who posited the positive role of external network relationships in the formation of innovation behavior. This implies that travel agency employees may depend heavily on knowledge and information sources based on internal groups (e.g., other departments in same travel agencies) in the generation of innovative service ideas. As a result, it is necessary for travel agency employees to strengthen their internal relationships with co-workers who perform similar tasks in common. In this sense, it is suggested to provide membership training programs to keep good relationships and team memberships among employees in same department. In addition to this, the Korean's hierarchical organization culture may yield the situation that senior supervisors may impede employees creating innovative service ideas by intervening in their harmonized interactions. In this regard, operators of travel agency are required to keep harmonizing employees' intraorganizational

communications without any interventions, which can be an effective operation strategy for boosting employees' innovation behavior.

With regards to the effect of tie strength on innovation behavior, the result showed the insignificant effect of tie strength on innovation behavior. This result also indicates that not only weaker ties, but also stronger ties, were not significant in innovation behavior. This result can be explained by an indirect effect on innovation behavior. That is, if the direct effect of tie strength has not been founded, it may be more important in influencing employees' attitude toward innovative work behavior, which in turn, is expected to affect the degree of employees' innovation behavior. In addition, since considerable efforts and time are usually required in sustaining strong relationships, tie strength might hinder employees from investing their time for innovative work behavior.

The results show that innovation behavior significantly and positively influenced job performance ( $\beta=.632$ ) and job satisfaction ( $\beta=.313$ ), respectively. This indicates that implementing and adopting innovation practices in work places may allow employees to increase their intrinsic motivation for attaining the goals of innovation implementation, which in turn enhance a higher level of occupational outcomes.

The results indicate that job satisfaction didn't have a significant effect on job performance, which is inconsistent with the finding of Øgaard, Marnburg and Larsen (2008), who proved the positive effect of job satisfaction on job performance. This study further tested the direct effect of job satisfaction on job performance, but no significant effect was

found ( $\beta=.14$ ,  $p>.05$ ). Meanwhile, their correlation was statistically significant ( $r=.170$ ,  $p=.018$ ). This result may come from the concern of spurious correlation approaches that ignore a confounding factor (i.e., innovation behavior) when examining a simple correlation between two variables, revealing more robust confirmation for the job satisfaction-performance relationship based on previous studies that detect a possible bias of spurious relations in a comprehensive model (Judge et al., 2001). Therefore, this study theoretically contributes to demonstrating the job satisfaction-job performance relationship by considering salient confounding factors in future research.

### 5.1. Limitations and Future Research

This study has some limitations. The data were derived from travel agency employees of three different regions in Korea and the sample size was relatively small. Despite the fact that a number of hypothesized relationships were confirmed in the context of travel agency, the results may not be generalizable to other employees of travel agencies outside Asia because of the differences of organizational cultures in diverse countries. In this regard, future research should replicate the proposed model by using not only cross-national data from different cultural groups but also different types of business. According to Li and Hsu (2016), innovation is not a routine work of tourism employees. Therefore, longitudinal studies are suggested for future research that focuses on the relationships between the change of employee's social network and their innovation behavior.

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