

Mediating Effect of Social Support between the Emotional Intelligence and Job Satisfaction of Chinese Employees

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Abstract This study aims to examine the mediating effect of social support on the relation between emotional intelligence and job satisfaction. A total of 355 Chinese employees were recruited as participants, and they completed questionnaires that measured their emotional intelligence, social support, and job satisfaction. Structural equation modeling (SEM) was adopted to test the mediating effect, whereas bootstrap methods were used to assess the magnitude of the direct and indirect effects. Results suggest that emotional intelligence and social support are significantly correlated with job satisfaction. The results of SEM also indicate that social support partially mediates the effect of emotional intelligence on job satisfaction. The final model proves the relationship between emotional intelligence and job satisfaction through social support. The findings extend prior studies and shed light on how emotional intelligence improves job satisfaction.

Keywords Emotional intelligence · Social support · Job satisfaction · Mediating effect

Introduction

With the development of the “affective” revolution, the emotional and social competencies of employees have gained significant attention in social and organizational psychology (Nelis et al. 2011). Some cognition and affect competencies are relevant to adjusting to stress, interpersonal effectiveness,

self-management, and disagreements with other people (Brackett et al. 2011; Giardini and Frese 2006; Rosete and Ciarrochi 2005; Zeidner et al. 2004). These emotional abilities enhance employee performance and also play a vital role in their productivity and effectiveness (Aghdasi et al. 2011; Cherniss 2000). Therefore, employees with high emotional intelligence (EI) are deemed to be invaluable assets (Kinman and Grant 2011; Kotsou et al. 2011). The current study intends to investigate the effect of emotional intelligence on social support and job satisfaction in enterprises, by exploring the link between emotional intelligence and job satisfaction of Chinese employees as mediated by social support as the main objective.

EI, which is defined as an individual’s ability to process and treat affect information and effect problems, is an important predictor of job satisfaction (Dong et al. 2014; Siegling et al. 2015). Relevant research demonstrates EI’s effect on key organizational outcomes, such as job satisfaction (Scheibe and Zacher 2013). Bar-On et al. believe that people with high EI can recognize and express their own effect, have positive self-recognition, and are able to implement their own potential to obtain happiness in the work place, which is associated with job satisfaction (Bar-On et al. 2000). Palmer and colleagues suggest that people’s ability to treat effect information by recognizing their own effect and ability to manage emotion can significantly affect their job satisfaction (Palmer et al. 2002). Freudenthaler et al. also find that EI can independently predict job satisfaction (Freudenthaler et al. 2008). Increasing evidence has indicated that EI abilities and traits affect job satisfaction (Kafetsios and Zampetakis 2008). The reasons why employees’ EI affect job satisfaction can be summarized as follows: interpersonally, emotional abilities and regulatory processes related to EI can benefit an individual’s social relationships, and hence affect work-related emotion and stress (Augusto-Landa et al. 2011). Thus, people with high EI are believed to have high job

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satisfaction. The same individuals are also aware of their emotions, and can better utilize it to regulate stress and negative emotion, which can result in positive evaluations on work or work-related situations. Social relationships are important vehicles of emotional ability, which is why EI affects job satisfaction and performance. However, minimal research has explored the extent to which social support components of employees mediate the effect of EI on job satisfaction.

Theories indicate that social support is a key factor in the job satisfaction and performance of an employee. Social support is defined as the spiritual and material help provided by various social aspects (i.e., family, relatives, and friends), that reflects one's closeness with social relations (Muschalla et al. 2009; Oh et al. 2014; Wang et al. 2014). Perceived social support is the subjective feeling one gets from social support. This type of social support is helpful in relieving life pressure and promoting life satisfaction, and is a good indicator for measuring social adaptation (Pavlova et al. 2015). An increasing number of studies validate the importance of social support in the workplace, and indicate that social support has potentially positive effects on job satisfaction. Most of these studies prove that a high amount of social support is positively associated with job satisfaction (Thoits 2013; Wolf et al. 1998). Research shows that the negative effects of stress are buffered by good interpersonal communication and perceived social support (Berkman 1983; Karademas 2006). Meanwhile, the lack of support from colleagues, supervisors, and family members can lead to job dissatisfaction. Thus, social support can increase employees' feelings of job satisfaction, and its absence serves as a stressor that acts as a catalyst for job dissatisfaction (Prince et al. 1997). Some studies have also proven the relation between EI and social support. Lopes et al. show that EI can significantly promote positive social relationships (Lopes et al. 2003). Yong and You find a positive correlation between EI and social support (Kong et al. 2012). Harmonious interpersonal relationships make people perceive more social support and promote job satisfaction.

Although previous studies have provided considerable evidence of the relationships between EI with job satisfaction and social support with job satisfaction, few studies have analyzed the direct and indirect associations between them. Therefore, further studies are still needed to elucidate the trilateral relations among EI, social support, and job satisfaction. First, testing the concurrent effect of EI and social support on job satisfaction is necessary to formulate an overall hypothesis on their relationships. No studies that explore the mediating effect of social support on the relationship between EI and job satisfaction have been conducted. This study aims to fill this gap and enhance the general understanding of the three highly related variables. According to the theory of emotional intelligence, individuals who understand and are aware of their

own feelings have better relationships with their colleagues and family members and are more receptive to social support, which eventually increases job satisfaction. Given the close relationship between EI and social support, it is expected that people with high EI are more likely to receive social support, and thus, it is further hypothesized that individuals with high social support have better job satisfaction. Second, the fact that previous studies concerning the relationships among EI, social support, and job satisfaction were conducted in the context of Western culture poses a crucial limitation to the study. Along with rapid development of China, concerns of the job satisfaction of Chinese employees have come up, making it necessary to examine the concurrent effects of EI and social support on job satisfaction in the context of Chinese culture. To summarize, with the objective of providing meaningful evidence for external validity, this study aims to examine the effect of EI on job satisfaction through the mediating effect of social support in Chinese organizations.

Method

Participants

355 Chinese employees from two middle-sized state-owned enterprises were recruited as participants, which consisted of 224 males and 131 females. The ages of the participants ranged from 25 to 37 years old, with a mean of 30.67 ($SD = 3.17$). All participants provided their written informed consent before completing the measures.

Procedure

The survey was part of a larger study which employed simple random sampling procedures. Participants were adopted primarily from the province of Henan by the Economics and Law University of Survey Research Center. All respondents completed the questionnaires in the classroom environment in their respective companies. Employees participated would get ¥20 as a reward. 355 questionnaires were distributed, and collected, and 14 participants failed to report their gender.

Instruments

Emotional Intelligence Scale This 33-item scale was developed by Schutte et al., provides a measure of total EI (Schutte et al. 1998). Each item consists of a short statement, to which participants were asked to indicate how closely they identify using a seven-point scale. Some example items of the scale includes: "I like to share my

emotions with others”, “I arrange events others enjoy”, and “I know why my emotions change”. The scale was translated into Chinese, and has been proved to be good reliability and validity as the original (Augusto-Landa et al. 2011; Kafetsios and Zampetakis 2008). In this study, the Cronbach alpha coefficient for emotional intelligence scale was 0.73.

Multidimensional Scale of Perceived Social Support (MSPSS) The MSPSS, developed by Zimet et al., is a 12-item self-report measure of how one perceives their social support system. Items are responded on a seven-point scale from 1 (Very strongly disagree) to 7 (Very strongly agree) (Zimet et al. 1988). Examples of items from this form consist “I get the emotional help and support I need from my family”, “My friends really try to help me”. The MSPSS was translated into Chinese and widely used in China, and has been tested to be good reliability and validity as the original (Augusto-Landa et al. 2011; Chou 2000; Zimet et al. 1988). In the present study, the Cronbach alpha coefficient for the MSPSS was 0.77.

Minnesota Satisfaction Questionnaire (MSQ) The Minnesota Satisfaction Questionnaire (MSQ), developed by Weiss et al., is a 20-item self-report measure of job satisfaction (Hirschfeld 2000). Items are rated from 1 (strongly dissatisfaction) to 5 (strongly satisfaction). The total scores ranges from 20 (low level of job satisfaction) to 100 (high level of job satisfaction). Example of items include: “the chance to try out some of my own ideas”. The MSQ has been translated into Chinese and widely used in China and showed to have good validity and reliability as the original (Fu et al. 2013; Weiss et al. 1967; Zhang and Seepho 2013). In the present study, the Cronbach alpha coefficient for the MSQ was 0.893.

Analysis Strategy

To test the hypothesis that the relationship between emotional intelligence and job satisfaction is mediated by social support, we conducted mediation analysis using the two-step procedure of Anderson and Gerbing (1988). To confirm the structural relations of the latent structured model, the measurement model included three latent variables (EI, Social Support and Job Satisfaction) was tested to determine the extent of representation by its indicators respectively. If the indices of the measurement model that can reach the predetermined requirements, the maximum likelihood estimation was adopted to test the structural model (Anderson and Gerbing 1988). Then, mediating effect of social support between emotional intelligence and job satisfaction was tested adopting the Bootstrap estimation procedure in Amos 17.0 (a bootstrap sample of

1200 was specified). Mackinnon et al. (2004) suggested that the bootstrap method yields the most accurate confidence intervals for indirect effects. The reason for the bootstrapping approach is that the standard error estimates and confidence intervals (CIs) of indirect effect will usually be imprecise because the indirect effect estimates generally do not follow a normal distribution (MacKinnon et al. 2004). The power of the statistical tests for the indirect effects which assumed to be normally distributed can be suspected. Thus, the bootstrap method can be a good option to analyze indirect effects (MacKinnon et al. 2004; Ouyang et al. 2015).

For the purpose of controlling the inflated measurement errors from multiple items for the latent variable and improving the reliability and normality of the resulting measures, four item parcels was created for emotional intelligence using the factorial algorithm method (Rogers and Schmitt 2004). The following steps were adopted to create the item parcels: first, factor analysis of all items in each variable was calculated to obtain factor loading; next, factor loading of all items was sorted in ascending order; afterward, all the items were assigned to four parcels in proper order according to factor loading (Zhang et al. 2014). The method can obtain almost equal factor loading for each parcel and put several conceptually similar items in one parcel. The mean of the items in one parcel was used as an indicator or observed variable for the latent variable.

Data Analysis

Correlation analysis was performed using the SPSS statistical software package. A p -value <0.05 was considered statistically significant. The confirmatory factor analysis (CFA) and Structural Equation Model (SEM) analysis were performed using AMOS 17.0. The model was considered to be suitable if the following four indices were meet the requirements: (a) Chi-square statistic (χ^2), χ^2/df , (b) the Normed Fit Index (NFI) greater than or equal to 0.95, (c) the Root Mean Square Error of Approximation (RMSEA) lesser than or equal to 0.08, and (d) the Comparative Fit Index (CFI) greater than or equal to 0.95. (Peng et al. 2016).

Results

Descriptive Statistics

Table 1 presents the mean, standard deviation, and inter-correlations of all study variables. Results showed that emotional intelligence, perceived social support, and job satisfaction were all positively correlated with each other significantly.

Table 1 Means, standard deviations, and correlations of the variables of interest

	Mean	SD	1	2	3
1. Emotional intelligence	165.72	17.40	-		
2. Perceived social support	54.41	7.51	0.47**	-	
3. Job satisfaction	68.03	10.28	0.36**	0.42**	-

**p < 0.01

Measurement Model

CFA was conducted to evaluate whether the measurement model fit the sample data adequately or not. Three latent constructs (Emotional intelligence, perceived social support and job satisfaction) and 9 observed variables were included in the measurement model, see Fig. 1. All the indices of the measurement model showed to be suitable to the data: $\chi^2/df = 1.66$, RMSEA = 0.044, NFI = 0.96, and CFI = 0.98.

Structural Model

In subsequent analyses, the structural model was tested using the maximum likelihood estimation. Both completely mediated model (model 1) and partially mediated model (model 2) were analyzed. The results showed that model 2 fits the data better, see Table 2 and Fig. 2. All the path coefficients in Fig. 2 were tested to be significant ($p < 0.05$). Taken together, those results indicated that emotional intelligence could influence job satisfaction not only directly, but also through the partially mediating effect of perceived social support. The effect of EI on job satisfaction through social support accounted for 50.11 %.

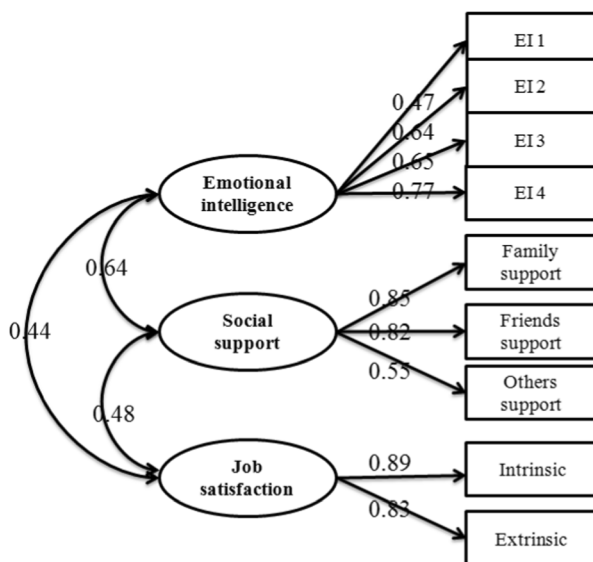


Fig. 1 Measurement Model

Table 2 Modeling comparison

Model	df	χ^2	χ^2/df	CFI	RMSEA	NFI
Model 1	25	80.37	3.22	0.95	0.08	0.93
Model 2	23	46.58	2.03	0.98	0.06	0.96

Bootstrap Analysis

The bootstrap estimation procedure in AMOS 17.0 was used to test the significance of the mediating effect of social support. A bootstrap sample of 1200 tested the mediating effect. The 95 % CIs of the direct and indirect effects are shown in Table 3; all the intervals did not overlap with zero. This further indicted social support mediated the effect of emotional intelligence on job satisfaction.

Discussion

The goal of this study is to test a model that includes social support as a mediator of the relationship between the EI and job satisfaction among Chinese employees. SEM and bootstraps methods were adopted to determine the direct effect of EI on job satisfaction, as well as the mediating roles of social support between EI and job satisfaction. The results confirmed the hypothesis of this study. Using the partially mediated model, a positive relationship between EI and job satisfaction was observed, which proves that individuals in the workplace with higher EI are more likely to be happier than those with lower EI. This finding is relatively consistent with existing research. Ciarrochi and his colleagues found that EI has a positive correlation with life satisfaction after controlling aspects such as intelligence and personality. They argued that EI can independently explain the change of life satisfaction (Ciarrochi et al. 2002; Mayer et al. 1999, 2008). Petrides and Furnham’s research showed that EI can explain 50 % of change of in SWB, and individuals with high EI can control and adjust their effect to a certain extent and promote SWB (Petrides and Furnham 2000). As mentioned previously, EI is the ability of processing affect information and dealing with emotional problems, whereas job satisfaction is the complex

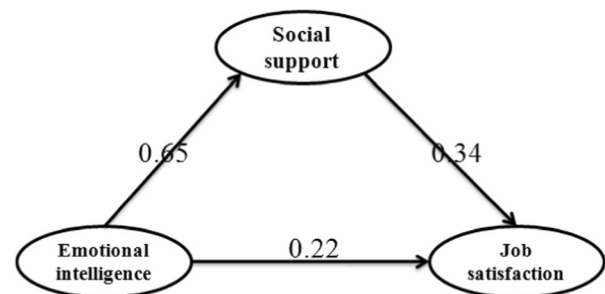


Fig. 2 The partially mediated model

Table 3 Direct and indirect effects and 95 % confidence intervals for the final model

Model pathways	Estimated effect	95 % CI Lower bounds	95 % CI Up bounds
Direct effect			
Emotional intelligence → Job satisfaction	0.22	0.05	0.39
Emotional intelligence → Perceived social support	0.65	0.53	0.74
Perceived social support → Job satisfaction	0.34	0.17	0.51
Indirect effect			
Emotional intelligence → Perceived social support → Job satisfaction	0.22	0.11	0.34

and subjective experience of work (He et al. 2014). Individuals with high EI can positively and actively adjust their own affection when facing troubles, which allows them to evaluate their work positively (Petrides and Furnham 2001). Employees with high EI can immediately identify and perceive the causes of work-related problems upon experiencing them and develop appropriate strategies to manage their emotional response toward stress factors. This attribute enables those employees to more likely gain satisfaction out of their work. The significance of this study is that it provides substantial evidence for the external validity of the relationship between EI and job satisfaction in an Eastern cultural setting. The study also provides strong evidence that training the emotional ability of Chinese employees is of utmost importance in achieving happiness and favorable performance in the workplace.

Another critical finding is the verification of the mediating effect of perceived social support between EI and job satisfaction. Testing the mediating effect proved the evident relationship between EI and job satisfaction through social support, and showed that social support is also an important factor in job satisfaction. Lopes and other scholars suggest that people with high EI have the ability of effect recognition, application, and management, and are capable of adjusting their emotions (Lopes et al. 2003; Xiao et al. 2014). Thus, contradictions or conflicts in interpersonal relationships can be easily relieved and become harmonious. These individuals are also competent at sensing and evaluating the work environment, allowing them to seek and use social support when problems occur. Given that individuals with high EI have a high frequency of social activity, they have more chances to seek help from others, realize their value in the workplace, and openly talk about their struggles; thus, job satisfaction is increased (Extremera and Fernández-Berrocal 2005). Therefore, EI can partially affect job satisfaction through the mediating effect of social support. Self-Determination Theory also points out that job satisfaction is enhanced when employees' psychological autonomy, competence, and relatedness are supported and social support fulfills the need to belong

(Teixeira et al. 2012). Other studies also indicate that social support is an important job resource. When good interpersonal communication between clients, colleagues, and family members is prioritized, an increase in job satisfaction occurs (Tooksoon 2011). The significant path from EI → social support → job satisfaction in this study shows that high EI is beneficial for the management of interpersonal relationship, obtaining further social support, and eventually increasing one's job satisfaction. This finding has very important applications in employee adjustment counseling and interventions and focus on the importance of using multi-level social support, such as that of those from colleagues and immediate superiors, family members, and others. Individuals may benefit from social support in enhancing their job satisfaction, because researchers have argued that it is an important social resource in the work environment, making it more effective than other individual strategies (Lu et al. 2012).

Before generalizing the findings of this study, some limitations need be taken into account. First, this study, like many others, was limited by self-report surveys that do not accurately represent the responses of the participants, and the correlations may have been inflated because of same-source–same-method bias. Second, this study adopted a cross-sectional design, which means that caution should be taken when interpreting the mediation effect of social support in the relationship between EI and job satisfaction. Thus, future longitudinal or experimental studies would be required to explore these associations further and increase the confidence of this study to make the predictive power of EI for job satisfaction through social support more convincing. Third, this study finds that perceived social support cannot completely mediate the effect of EI on job satisfaction, and thus, other mediating variables could exist in the relationship between EI and job satisfaction. Therefore, other mediators, such as coping style and self-esteem, may need further exploration. However, this study currently provides meaningful data for understanding the relationship between EI, social support, and job satisfaction.

Compliance with Ethical Standards

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

Conflict of Interest Dawei Liu declares that she has no conflict of interest.

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