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**Title:** The Impact of Instrumental, Adversarial Network Ties, and Emotional Labor on Job Satisfaction

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**Conflict of Interest**

The author (s) declared no conflict of interest and have not received any funds for the project.

# The Impact of Instrumental, Adversarial Network Ties, and Emotional Labor on Job Satisfaction

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## Abstract

In the present technological era, social networks significantly affect job-related outcomes. Given its importance, we examined the effect of “instrumental ties, adversarial ties, and emotional labor on job satisfaction.” And the moderating role of communicative rationale. We collected a sample of 148 employees from a premier telecommunication company in Balochistan. We used Smart PLS for statistical analysis as we had a small sample size. The study found that “instrumental network closeness and emotional labor” promote job satisfaction. Whereas adversarial network closeness “insignificantly affects job satisfaction.” We also found an insignificant association between the moderating role of “communicative rationale on emotional labor and job satisfaction.” We believe healthy and positive relations provide physical comfort and emotional support. Further, the negative relations may distract employees and minimize their ability to focus on the task, but employees preoccupied with their jobs do not get distracted by such ties.

**Keywords:** *Job satisfaction, social network, instrumental network ties, adversarial network ties, closeness centrality.*

## Introduction

Social network literature demonstrates the relationship between the network users and their collective responses has several job-related consequences (Levidow, Sansolo,

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& Schiavinatto, 2022). Social Network Theory assumes the attitudes and behaviors of social network members depend on their social interaction (Keller, Wong & Liou, 2020). Mason, Narcum, and Mason (2021) assert that the social ledger consists of positive and negative ties that provide social capital and liabilities. In other words, social networks may facilitate and hinder the behaviors and performances of employees and organizations. Similarly, in social network literature, the notions of structural balance also demonstrate the dynamics of positive and negative edges with graphical representation (Cisneros-Velarde, & Bullo, 2020). This perspective proposes that each positive tie links with a negative phenomenon that may have either a good or bad impact. Hence, it assumes that positivity and negativity coexist (Duan et al. 2019). The effects of these networks have been investigated on job satisfaction and other organizational-related outcomes (Hayati & Puri, 2020). Several studies have examined the effect of social network patterns in other domains, but a few have examined their impact in the domain of the telecommunication sector (Ibrahim & Aljarah, 2023; Saputra, Setyoko, & Kurniasih, 2022). Given the above gap, the study examines the impact of instrumental network closeness centrality, adversarial network closeness centrality, and “emotional labor” on job satisfaction. And the “moderating role” of communication rationale on “emotional labor job and satisfaction”.

## **Literature Review**

### **Job Satisfaction**

The literature suggests that job satisfaction is an extensively studied concept. The concept began in the 1930s (Luthans, 1998), and to date, numerous studies have examined its antecedents and consequences worldwide (Teng, Wu, & Tsai, 2022; Haar & Brougham, 2022). Researchers have examined its antecedents and consequences in many domains and disciplines (Zhang, Sun, & Zhang, 2022). Despite the extensive research, researchers still refine it according to the demands of different domains. Boccoli, Gastaldi, and Corso (2023) assert that satisfaction is dynamic and varies with time and domains. Despite many definitions of job satisfaction, researchers believe the definition by Locke (1976) is the most comprehensive. He argues job satisfaction is “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experience.” Moorman (1993) and Badri et al. (2022) define job satisfaction as a combination of cognitive and affective contentment. Similarly, Brief (1998) proposed it to be an internal state. Weiss (2002) sees job satisfaction as an attitude, whereas Padmanabhan (2005) summarized it as an overall feeling that employees receive from different aspects of the job. Becerra (2023) believe that job satisfaction evolved from a single perspective to multiple perspectives.

## **Social Network Ties: Instrumental and Adversarial Network Ties**

Social network researchers often distinguish between two broader types of social network ties: positive and negative (Clarke, Richter & Kilduff, 2022). Positive ties bound individuals together either formally or informally. These ties promote networks like “instrumental, trust, support, advice, collaboration, communication, and friendship” (Frangi et al., 2022). Genkin, Harrigan, Kanagavel, and Yap (2022) believe that social network activities help employees build strong social networking, resulting in positive attitudes towards jobs and organizations.

Within every organization, employees are part of social interactions. Such ties are associated with work, advice, help, and resources necessary to accomplish a task (Carnabuci, Nedkovski, & Guerci, 2023). The researchers assert that instrumental ties usually deal with the cognitive abilities of an employee (Ali, Khan, Wang, & Wang, 2022). Negative ties are “enduring, recurring set of negative judgments, feelings, and behavioral intentions toward another person” (Frangi et al., 2022). These ties relate to hindrance, avoidance, adversarial, and conflict.

## **Network Centrality**

Most studies have examined the factors affecting network centrality and found varying results (Bringmann et al., 2019). Niedbalski and Ślęzak (2022) assert that network centrality is critical for analyzing social networks (Daly et al., 2019). A typical network centrality has three main measures: “degree of centrality, closeness, and betweenness” (Badar, Hite & Ashraf, 2015; Liu, Zhang, Zhang, & You, 2022). The degree of centrality relates to the number of direct ties a network user has with other network users. Closeness centrality specifies how close or near the network users can be to other network users. Betweenness is an intermediary between network users (Latora & Marchiori, 2007; Valeri & Baggio, 2022).

A network user’s “closeness centrality” relates to minimum distance or geodesic paths. Freeman (1979) defines closeness centrality as “the sum of graph theoretic distances from all other nodes.” At the same time, the distance from a node to another node refers to the “length and link,” which must be the shortest possible path. The study argues that informative and disliking behavior flows in the network. The employees or users occupying the shortest distances will receive the flow of information sooner than others. Information flowing in the network reaches all network users, but users with high levels of closeness receive novel information before others. This information can be valuable, and receivers can use it to accomplish the task. Similarly, if a disliking behavior flows in the network, the employees with high closeness scores will be affected earlier (Borgatti, 2005).

## Hypothesis Development

In the following sections, we present theoretical arguments for articulated hypotheses.

### Instrumental Network Closeness Centrality and Job Satisfaction

Employees embedded in an instrumental network may enhance their abilities and learning skills by being well-informed about the details (Yuan et al., 2022). The proximity to other employees also helps them keep abreast with the pressing work challenges and balance the workflow momentum (Rrmoku, Selimi, & Ahmedi, 2021). Thus accumulating quality information will reduce stress, ambiguity, and uncertainty (Cheng, Cao, Guo, Xia, 2022). This experience may boost employees' morale, confidence, and self-esteem and, most importantly, increase their satisfaction (Zaman et al., 2021). Thus we argue that acquiring quality information may enhance employees' job satisfaction.

*H1: Instrumental network closeness centrality "positively affects job satisfaction."*

### Adversarial Network Closeness Centrality and Job Satisfaction

This paper argues that "adversarial network ties" adversely affect users' friendly and affective behavior. These antagonistic ties usually promote enmity and hate between employees (Usmanova et al., 2021). Hence, the employees may not benefit from the same social environment assumed to benefit others. Employees in negative ties face organizational rivalry, hindrance, conflicts, and stress (Yaghoubi & Fainekos, 2019). Unpleasant and aversive behaviors reduce employees' attitudes toward work. Such relations thwart the exchange of valuable information (Abubakar, 2020). Reducing the employees' social network activities promote pessimistic feelings and thoughts, leading to negative job satisfaction (Lim et al., 2022). The threats and anxiety ties can depress and frustrate the employee (Strokach et al., 2020). Hence, we argue that employees central to an adversarial network would experience dissatisfaction and distraction.

*H2: Adversarial network closeness centrality "negatively affects job satisfaction."*

### Emotional Labor and Job Satisfaction

Extant literature documents inconclusive results between "emotional labor and job satisfaction" (Gulsen & Ozmen, 2020). Wen, Huang, and Hou. (2019) asserts controlling emotion leads to negative satisfaction. The authors also believe selling employees' emotions commercially is an important precursor to negative job satisfaction. While validating past studies, Lartey, Amponsah-Tawiah, and Osafo (2019) suggest that employees often resort to "surface-acting and deep acting" to control their emotions. These aspects negatively affect job satisfaction. Others assert that "surface acting and

deep acting may positively affect job satisfaction" (Amissah, Blankson-Stiles-Ocran, & Mensah, 2022). Extant literature also documents that surface acting stimulates negative job satisfaction, and expressing genuine emotions enhances job satisfaction (Nguyen & Stinglhamber, 2021). Wang, Lin, Chen, and Wu (2022) assert that employees often suppress their emotions to follow organizational rules and regulations, negatively affecting their job satisfaction. Khetjenkarn and Agmapisarn (2020) suggest that organizations can reduce the adverse effect of emotional labor by offering financial rewards and supportive culture rather than having a rigid structure.

*H3: "Emotional labor" positively affects "job satisfaction."*

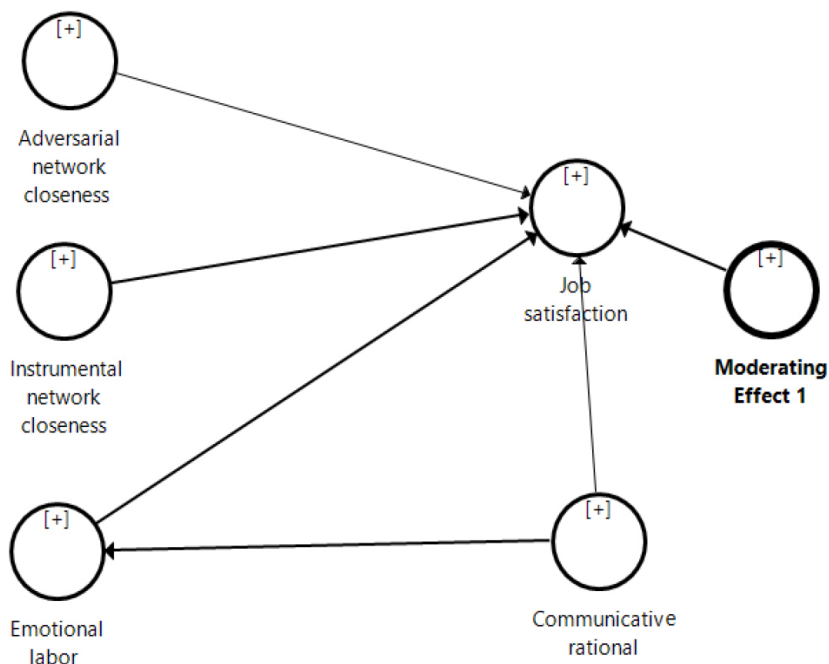
### **Moderating Role of Communicative Rational Action**

The rational communication phenomenon has stemmed from the Theory of Communicative Rationality (McCandless & Vogler, 2020). Researchers believe it is against capitalist mentality, but it aligns with "social firm understanding," an important aspect in today's competitive era for sustainability and growth. Wang, Ryan, and Yang (2019) believe rational communication will not soften the strategic goals of all institutions except nongovernmental organizations. Aagerup, Frank, and Hultqvist (2019) assert that businesses must promote employee-friendly policies and encourage employees to take rational communicative actions. Communicative rational action is vital for an organization and individuals as it helps firms to revise their policies and procedures and has a varying effect on "emotional labor and job satisfaction" (Çamlı et al., 2022; Claeys & Coombs, 2020). A study on rational communication action found that managers scoring high on the rational communication scale have a positive approach toward firms and employees (Xiao, 2020). Buhmann, Paßmann, and Fieseler (2020) suggest that emotion regulation reduces emotional labor's adverse effects. Similarly, when an individual takes "rational communicative actions," the effect of emotional labor decreases (Berti & Simpson, 2021).

*H4: Communicative rational moderates "emotional labor and job satisfaction."*

### **Conceptual Framework**

After reviewing the relevant literature discussed in the above sections, we have developed a "conceptual framework" depicted in Figure 1.



**Figure 1: Conceptual Framework**

## Methodology

### Population and Sampling

The study collected data from 148 employees working in the head office of a premier telecommunication company in the provincial capital of Balochistan, Quetta. The authors personally visited the company and distributed 160 questionnaires and received 148. We used non-random sampling since the target telecommunication company's sample frame was unavailable.

### Pilot Tests

The study has adopted the questionnaire from the existing reputed journals. However, we pretested to find out issues related to the wording and comprehension of the questionnaire. For the pilot test, we recruited five students from a local university, and after explaining the purpose of the study, the volunteers filled out the questionnaires. They did not find any issues related to understanding the wording and content of the questionnaire. Subsequently, we assessed the reliability of the questionnaire based on 35 respondents selected from the target telecommunication company. We found that the "internal consistency values of the constructs in the pretest were within the

acceptable range.”

Scale and Measures

We adopted the constructs used in past studies. The questionnaire used in the study has five latent variables and a demographic part. The demographic part is “based on a nominal scale.” We measured the responses of the constructs based “5 -Point Likert Scale.” “Five suggesting a high agreement and one suggesting a low agreement.” Table 1 depicts a summary containing “constructs, sources, and items used in the study.”

Table 1: Scales and Measures

Construct	Sources	Items
Job Satisfaction	Rentsch, and Steel (1992)	20
Instrumental Network Closeness Centrality	Woehler et al. (2021)	5
Adversarial Network Closeness	Woehler et al. (2021)	5
Emotional Labor	Park, Cho, Lee, and Jeon. (2022)	10
Communicative Rational Action	Çamlı et al. (2021)	7

Results and Findings

Measurement Model

The measurement model presented in Figure 2 examines the “association between indicator variables and latent variables.” It also generates results related to the measurement model’s validity, reliability, predictive power, and fit indices. The study has presented results after the measurement model.

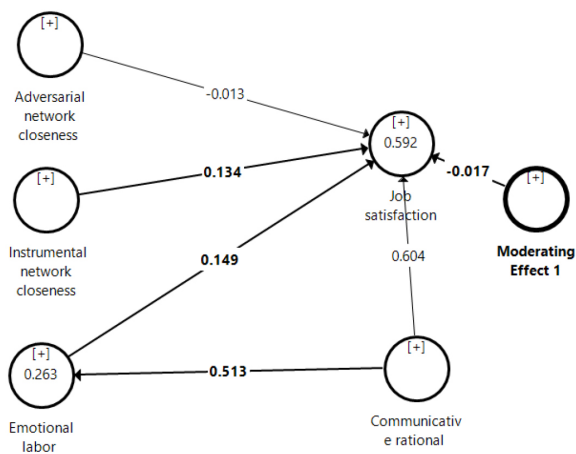


Figure 2: Measurement Model



## Descriptive Analysis

We have generated values related to descriptive analysis and have presented them in Table 2.

**Table 2: Summary of Descriptive Statistic**

	Cronbach's Alpha	Mean	Std. Dev	Kurtosis	Skewness
Instrumental Network Closeness	0.848	3.686	1.344	1.415	1.980
Adversarial Network Closeness	0.835	4.173	1.472	1.198	1.204
Communicative Rational	0.701	3.578	1.481	1.904	1.226
Emotional Labor	0.844	3.709	1.615	1.448	1.636
Job Satisfaction	0.856	4.060	1.719	1.842	1.845

We found the highest Cronbach's value is for job satisfaction ( $\alpha = 0.856$ ,  $M = 4.060$ ,  $SD = 1.719$ ), and the least is for communicative rational ( $\alpha = 0.701$ ,  $M = 3.578$ ,  $SD = 1.481$ ), suggesting the "constructs have acceptable internal consistency" (Wong, 2013). We also found that constructs have univariate normality since all the "Skewness and Kurtosis values are lesser than  $\pm 2.5$ " (Khatun, 2021).

## Convergent Validity

Convergent validity measures "the association between indicator variables and respective latent variables." We have summarized the results in Table 3.

**Table 3: Convergent Validity**

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Instrumental Network Closeness	0.848	0.886	0.907	0.766
Adversarial Network Closeness	0.835	0.917	0.883	0.655
Communicative Rational	0.691	0.756	0.822	0.608
Emotional Labor	0.844	0.867	0.886	0.61
Job Satisfaction	0.856	0.86	0.912	0.777

Results depict that "all the composite reality values are at least 0.70, and AVE values are greater than 0.70," suggesting the constructs do not deviate from the requirements of convergent validity (Fornell & Larcker, 1981).

## Discriminant Validity, Fornell (1981) Criteria

We examined "the discriminant validity based on Fornell's (1981)." We presented the results in Table 4.

**Table 4: Discriminant Fornell & Larcher (1981) Criteria**

<b>Constructs</b>	<b>IND</b>	<b>ANC</b>	<b>CR</b>	<b>EL</b>	<b>JS</b>
Instrumental Network Closeness	0.875				
Adversarial Network Closeness	0.438	0.809			
Communicative Rational	0.489	0.249	0.780		
Emotional Labor	0.524	0.545	0.513	0.781	
Job Satisfaction	0.500	0.274	0.745	0.522	0.881

We found all the “constructs are unique and distinct since AVE square root values are greater than Pearson Correlation values” (Fornell & Larcher, 1981)

### **Discriminant Validity HTMT Ratio.**

The discriminant validity results based on the HTMT ratio presented in Table 5 suggest that the construct fulfills the requirements of discriminant validity since “all HTMT ratios are lesser than 0.90” (Risher & Hair, 2017).

**Table 5: Discriminant Validly HTMT Ratio**

	<b>INC</b>	<b>ANC</b>	<b>CR</b>	<b>EL</b>	<b>JS</b>
Instrumental Network Closeness	-				-
Adversarial Network Closeness	0.523				
Communicative Rational	0.603	0.292			
Emotional Labor	0.625	0.677	0.62		
Job Satisfaction	0.576	0.295	0.897	0.589	-

### **Predictive Power of the Measurement Model**

Researchers suggest using “R and Q square values to assess the predictive power of the measurement model.” Table 6 shows that “R square values are graters than 0.20 and Q square values greater than 0.10,” suggesting the measurement model has adequate predictive power (Wong, 2013).

**Table 6: Predictive Power of the Model**

	<b>R Square</b>	<b>R Square Adjusted</b>	<b>SSO</b>	<b>SSE</b>	<b>Q<sup>2</sup> (=1-SSE/SSO)</b>
Emotional Labor	0.263	0.262	5990	5097.284	0.149
Job Satisfaction	0.592	0.59	3594	1958.188	0.455

### **Fit Indices of the Measurement Model**

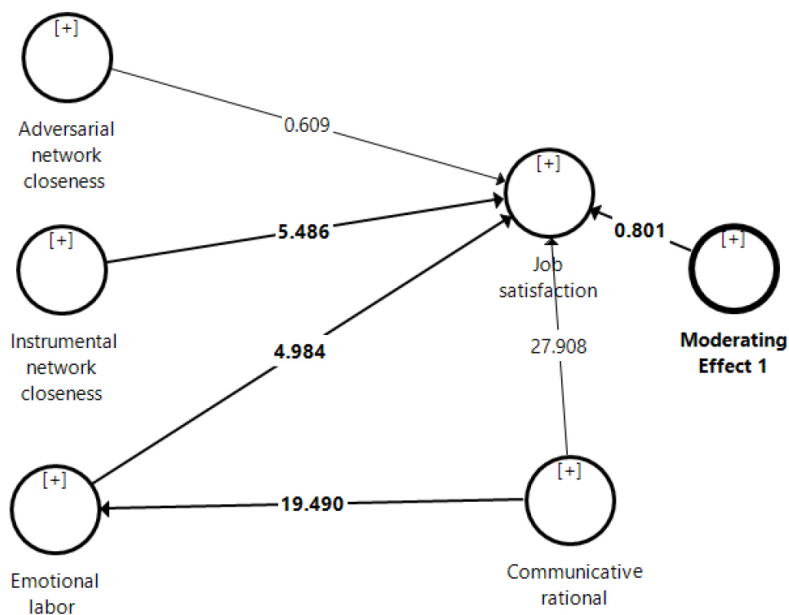
The “fit indices” in Table 7 show that “SRMR values are less than 0.08 and NFI values are greater than 0.80,” suggesting the measurement model has adequate fitness (Kong, 2013).

**Table 6: Fit Indices**

	Saturated Model	Estimated Model
SRMR	0.072	0.076
d_ULS	1.447	3.608
d_G	0.49	0.564
Chi-Square	3372.789	3722.988
NFI	0.833	0.805

## Structural Model

Based on bootstrapping of 5000 sub-sample, we have “generated a structural model for hypotheses results.” Figure 3 depicts the structural model, and Table 7 shows the hypothesis results.



**Figure 3: Structural Model**

**Table 7: Hypothesis Results**

Hypothesis	B	T Stat.	P Values	Results
Instrumental Network Closeness -> Job Satisfaction (H1)	0.134	5.486	0	Accepted
Adversarial Network Closeness -> Job Satisfaction (H2)	-0.013	0.609	0.543	Rejected
Emotional Labor -> Job Satisfaction (H3)	0.149	4.984	0	Accepted
Moderating Effect 1 -> Job satisfaction(H4)	-0.017	0.801	0.424	Rejected

The results suggest: Instrumental network “closeness positively affects job satisfaction” ( $\beta=0.134$ ,  $t=5.468>0.05$ ). Adversarial network closeness “insignificantly affects job satisfaction” ( $\beta= -0.013$   $t=0.609>0.05$ ). Emotional labor “positively affects job satisfaction” ( $\beta= 0.149$   $t=4.984,<0.05$ ), and communicative rational insignificantly “moderates emotional labor and job satisfaction” ( $\beta= -0.017$   $t=0.801> 0.05$ ).

## **Discussion and Conclusion**

### **Discussion**

We found that an “instrumental closeness network positively affects job satisfaction.” Literature suggests that the proximity to other employees also helps them keep abreast with the pressing work challenges and balance the workflow momentum (Rrmoku, Selimi, & Ahmedi, 2021). Thus accumulating quality information will reduce stress, ambiguity, and uncertainty (Cheng, Cao, Guo, Xia, 2022). This experience may boost employees’ morale, confidence, and self-esteem and, most importantly, increase their satisfaction (Zaman et al., 2021).

The results show that adversarial networks “insignificantly affect job satisfaction.” Thus, unpleasant and aversive behaviors reduce employees’ attitudes toward work. Such relations thwart the exchange of valuable information and knowledge (Abubakar, 2020). Thus, reducing the employees’ social network activities may promote pessimistic feelings and thoughts, leading to negative job satisfaction (Lim et al., 2022).

The study asserts that “emotional labor positively affects job satisfaction.” Extant literature also documents that “surface acting stimulates negative job satisfaction,” and expressing genuine emotions enhances job satisfaction (Nguyen & Stinglhamber, 2021). Wang, Lin, Chen, and Wu (2022) assert that employees often suppress their emotions to follow organizational rules and regulations, reducing job satisfaction. Khetjenkarn and Agmapisarn (2020) suggest that organizations can reduce the adverse effect of emotional labor by offering financial rewards and supportive culture rather than having a rigid structure.

We also found “communicative rationale insignificantly moderates emotional labor and job satisfaction.” Extant literature documents that “communicative rational action has a varying effect on emotional labor and job satisfaction” (Claeys & Coombs, 2020). Buhmann, Paßmann, and Fieseler (2020) suggest that emotion regulation reduces emotional labor’s adverse effects. Similarly, when an individual takes communicative rational action, the effect of emotional labor decreases (Berti & Simpson, 2021). A study on rational communication action found that managers scoring high on the rational

communication scale have a positive approach toward firms and employees (Xiao, 2020).

## **Conclusion and Implications**

Based on a data set of 148 collected from the local telecommunication industry, the study found that “instrumental network closeness and emotional labor promote job satisfaction.” Whereas “adversarial network closeness insignificantly affects job satisfaction.” We also found an insignificant association between the “moderating role of communicative rationale on emotional labor and job satisfaction.”

The aspects of social capital and social network are broadly expanding. Yet the phenomenon is rarely addressed in Pakistani literature and context. This paper focuses on the Social Network Theory. According to Cross et al. (2013), social network analysis is an emerging field that needs to develop in practice and research. Labianca and Brass (2006) and Cross et al. (2013), and Labianca (2014) believe in the value of social network ties. They recommend that HR policies focus on improving an organization’s social network ties. This paper argues that social network ties that prevail in the organization influence employees. The interactions occur occasionally, but usually when information is necessary for the work.

Information and resources, and network interactions are important for an organization. To get information, employees usually contact, physically and through the network, the individuals they like and feel comfortable with (Keller, Wong & Liou, 2020). Usually, the interactions are positive and friendly, but there are also possibilities that negative interactions may prevail (Witteck, Kroneberg, & Lämmermann, 2020). The employees are usually aware of their relationships, and it is paramount that they must be satisfied with each other and other aspects of the working environment and organizational settings (Zagenczky & Murrell, 2009). Thus, the evidence suggests that isolating positive and negative ties is necessary. This distinction enables employees to make better decisions, leading to positive attitudes towards work.

The result of the study showed that instrumental relations are important for accumulating resources and information. Such positive relations help in coping with various work-related demands and maximizing satisfaction. Employees gain this satisfaction by acquiring resources and accomplishing tasks (Hayati & Puri, 2020). Hence, healthy and positive relations are a source of physical comfort and emotional support. Further, the negative relations may distract employees and minimize their ability to focus on the task. At the same time, the literature documents that employees preoccupied with their jobs do not get distracted by social ties. (Cross et al., 2013).

## **Limitations and Future Research**

The influence of negative feelings may vary and differ within different domains of the relational network. Such ties might emerge frequently and affect employees differently. Possibly, it may divulge different consequences with different relational trajectories and lifespans (Erdogan, Karaminogullari, Bauer & Ellis, 2020). Thus we recommend a comprehensive study to discover negative network mechanisms. This study may lack generalizability as we collected the data from a telecommunication organization in Quetta. Future studies may examine the discussed phenomenon in other cities and other domains.

The study also recommends that future research may attempt to find a link between organizational attitudes and other social networks. It also recommends considering the network's mediating and moderating effects. Employees with greater tenure would have a more central network position and job satisfaction due to their increased tenure in the organization (Zhu, 2012). Similarly, according to research, ethnic identities contribute to unbalancing employees' beliefs, values, social relations, and satisfaction levels (Gold, Webb & Smith, 198). Thus, researchers may include these variables to understand the phenomenon better.

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