

Organizational Networks Revisited: Relational Predictors of Organizational Citizenship Behavior

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Abstract. Organizational citizenship behavior (OCB) is an important management construct. Despite previous investigations in relation to social capital, the role of networks in its emergence has received only limited attention. In this paper we investigate the relationship between OCB, with data collected from supervisors evaluating their subordinates; several types of organizational networks (professional, friendship, support, supervisor-subordinate), and several other constructs (collected from the employees themselves), shown to affect OCB in the past. All data were collected at a large insurance company in Russia.

Outcomes of this study have several important implications. First, the impact of networks on manifestation of OCB depends not only on the strength of network ties, but on types of network. Second, inter-organizational relationships are complex and consist of several levels of mediated relationships. Results of this study can impact the theoretical understanding of OCB and have practical implications for the supervisor-subordinate relationships in the workplace.

Keywords: Network relationships · Organizational citizenship behavior · Job characteristics

1 Introduction

Organizational citizenship behavior (OCB) is an important construct in the study of management, first introduced by Organ [1] to describe the behavior that was discretionary in nature, not required by the job description, performed without an expectation of a reward or payment, but contributing to organizational performance. Over the years, a large number of constructs were developed to describe the different elements of such behavior, and the multitude of studies encompass a large variety of antecedents, covariates and consequences of OCB. The many constructs in the large domain of OCB are generally divided into five groups: altruism, courtesy, conscientiousness, civic virtue and sportsmanship [2].

The study has been funded by the Russian Academic Excellence Project ‘5-100’.

The importance of this construct cannot be overestimated: broadly, by some estimates, OCB improves organizational performance by 18–38% [3]; specifically, work quality is increased by 18%, work quantity by 19%, financial results by 25%, client satisfaction indicators by 38% [3]. In addition, OCB increases both client and employee satisfaction, and reduces turnover and absenteeism [4], among many other factors. An important element of organizational culture, this behavior is usually a part of a well-functioning organization, and once established, cannot be easily emulated or copied, providing organizations with sustained competitive advantage [5]. Over-all, this is one of the most widely studied organizational phenomena, still occupying a prominent place in organizational research despite being first introduced over 30 years ago [1].

Many theories have been put forth for the explanation of the positive effect of OCB in organizations [6], among them, norms of reciprocity and impression management. No matter the result, OCB appears to be a social behavior, which assumes that an employee is a member of a social community; multiple studies have confirmed that OCB does not manifest in isolation [7]. Moreover, as [7] have shown, the level of OCB, manifested by an employee, has a strong positive association with the level of OCB manifested by employees co-workers. While such observations seem almost intuitive, it is surprising that very little work has been done to examine the relationship between intraorganizational social networks and OCB. The work done so far is mostly limited to examination of reciprocity of OCB, relational correlates of interpersonal OCB, and impact of co-workers on employees manifestation of OCB [8–10]. The aspects of interorganizational network structure (e.g., type and strength of ties) remain mostly unexplored, despite obvious indications that OCB is a relational behavior.

This paper reports on a study designed to fill an important gap in our understanding of the relationship between organizational social structure and OCB. The study was conducted in a large insurance company in Moscow, and data were collected from several sources to ensure validity and reliability. Employees provided data on their networks and important organizational and job characteristics, previously shown to be related to OCB; employee supervisors evaluated the organizational citizenship behavior of their subordinates.

2 Relationship Between Social Networks and OCB: Theoretical Considerations

Social networks, in general, help understand the structure of social exchange [11]. For example, people with high ethical and moral norms usually tend to act ethically in most situations. However, in presence of different group norms, people tend to change their behavior. In other words, ethical behavior is explained, in large part, by the social context in which it takes place [11, 12], rather than by individual preferences. So it appears intuitive that OCB, with its strong ethical orientation, has a strong social component.

A relatively recent study explored how social factors may influence the emergence of helping behavior in the workplace. It showed that the extent to which

an employee was willing to help his or her coworkers was directly related to the amount of help this employee received in the past [13], and reciprocity of helping inside a group or a team was a part of a group norm [10]. When helping behavior was expected inside the group, and employee was more likely to help, meaning social context played a large role in interpersonal relationships, even in small social groups.

In a different context, previous studies of networks in organizations have shown that employee values, as well as attitudes and perceptions, were in part a reflection of the employees relationship with his or her coworkers [14,15]. In another context, employees were more likely to ask their co-workers, other than supervisors, for help with understanding organizational norms and values [16]. So clearly, organizational networks emerge as an important covariate of helping behavior, a part of OCB.

Most frequently in organizations, people build friendship and advice networks [14]. A couple of studies noted that an employee who provides an advice is often perceived as more important than someone who does not do it as often, because advice information is frequently needed by others to perform work-related duties [17,18]. Results of these studies indicate that by seeking and using advice, employees build advice networks, which in turn promote advice behavior. In addition, it was shown that the number of connections that a person maintains has a positive effect on improving work-related knowledge and qualifications, as well as organizational involvement [19]. According to the social information processing theory, employees use advice received from others to form and evaluate the organizational environment, including their own work environment and other complex constructs [20], such as networks. In particular, people use social information in order to react to social signals, form their impressions of the work environment, develop attitudes towards their workplace, and evaluate demand characteristics and job expectations.

In longitudinal studies [14] has shown that advice behavior of co-workers strengthen the organizational stability, because it promotes information exchange and activity coordination inside the work group. In addition to information exchange, social influence manifests in observation and emulation of someones behavior, especially relationships and emotional reactions, including altruistic motives. So it appears that advice networks play an important role in establishment of OCB.

In addition, in work context, people experience a strong need for communication and friendship and social and emotional support [21,22]. Many emulate their friends employment and career decisions, and close ties in organization often result in convergence on views on controversial topics and promote organizational change.

Despite the fact that friendship and advice are different in their essence, both types of relationships are similar in tie strength. Tie strength here is defined similar to Granovetters view of time spent, emotional strength, level of intimacy and reciprocity of favors that characterize the tie. Strong ties are more intimate, allow for more self-expression, and assume deeper relationships than those required for

exchange relationships in a context of a job. People who have stronger ties are more likely to have more similar views on various topics, experience and access to re-sources [23, 24]. In contrast, the exchange via weak ties assumes less intimate and less frequent contact between people, usually located further from each other in a network. Weak ties are considered important because they allow employees access to information and resources that cannot be obtained via strong ties. In the context of OCB, however, strength of ties remains a controversial construct. For example, the study by [15] has shown that strong ties in advice networks were associated with better job performance, whereas weak ties did not show such association at all. Other network characteristics, indicating the level of prestige and connectedness, may follow similar patterns.

Based on theoretical considerations above, this study has several hypotheses:

Hypothesis 1: Strength of an employees position in a friendship network, manifested by centrality and other network characteristics, is positively associated with manifestation of organizational citizenship behavior.

Hypothesis 2: Strength of an employees position in an advice network, manifested by centrality and other network characteristics, is positively associated with manifestation of organizational citizenship behavior.

Hypothesis 3: Strength of an employees position in a supervisor-subordinate network, manifested by centrality and other network characteristics, is positively associated with manifestation of organizational citizenship behavior.

Hypothesis 4: Strength of an employees position in a professional network, manifested by centrality and other network characteristics, is positively associated with manifestation of organizational citizenship behavior.

3 Method and Analysis

3.1 Sample

The study was conducted at a Moscow-based company RosGosStrakh (an abbreviation of Russian State Insurance Company), one of the largest insurance companies in Russia, 100% privately held. It offers a large line of insurance products to individuals and companies, and has 74 subsidiaries and 35,000 offices throughout Russia. The company has over 4.5 million individual clients, 240,000 corporate clients, and employs over 100,000 people, including 65,000 insurance agents. It is currently number 75 in Russias top 400 companies.

Data was collected in the HR department of the Moscow headquarters from 69 employees (out of 72 at the time), 51 of them female, average age of 29.7 years. Sixteen of them were managers at different level. Data collection was not anonymous, but respondents were assured of full confidentiality of data; surveys were collected directly by one of the investigators, without being shown to company management.

All respondents were asked to fill out a survey consisting of network data (free recall, several types of relationships friendship, advice, supervisor-subordinate, professional, with strength of ties evaluated on a scale from 1 to 7, with 7 being the strongest), as well as other constructs, shown in previous studies to covary with OCB: workload, responsibility, work difficulty, work speed, administrative problems, interpersonal conflicts, uncertainty in the future, role conflict, physical participation, emotional participation. Supervisors also filled out a separate survey, in which they evaluated each subordinate on several OCB dimensions: workplace pride, fulfillment of work demands, helping behavior, voice behavior, lack of fear. All constructs and scales were adapted from previously tested and validated OCB scales [2–4].

3.2 Analysis

All data were analyzed using structural equation modeling (SEM) in Lisrel 8.8 and network structure was analyzed using UCINet. Network characteristics were then used as inputs into the structural model.

The general estimation procedure for the structural model followed the standard SEM algorithm [25]. The general matrix form for model with latent variables is defined as follows:

$$\Sigma = \begin{bmatrix} \Sigma_{yy} | \Sigma_{yx} \\ \Sigma_{xy} | \Sigma_{xx} \end{bmatrix} = \Sigma(\Phi), \tag{1}$$

which can be further specified as follows:

$A_y(I - B)^{-1}(\Gamma\Phi\Gamma' + \Psi) [(I - B)^{-1}]' \Gamma_y' + \Theta_\epsilon$	$A_y(I - B)^{-1}\Gamma\Phi\Lambda_x'$
$A_x\Phi\Gamma' [(I - B)^{-1}]' \Lambda_y'$	$A_x\Phi\Lambda_x' + \Theta_\delta$

Where A s are the matrices of factor loadings of x s, or exogenous factor indicators, and y s, or endogenous factor indicators; B and Γ are the matrices of structural relationship parameters; Φ is the matrix of exogenous factor inter-correlations; Ψ is the matrix of endogeneous factor errors; Θ s are matrices of random errors on x -variables, or δ s, and y -variables, or ϵ s. The model is based on certain laws of variances, covariances, and means of the observed variables, which form the measurement model of the latent variables, and is subject to the following laws:

- Law 1: The covariance of a random variable X with itself is equal to its variance, $Cov(X, X) = Var(X)$
- Law 2: If a and b are constants and X and Y are random variables, $Cov(aX, bY) = abCov(X, Y)$
- Law 3: If $X, Y, Z,$ and U are random variables and $a, b, c,$ and d are constants, then $Cov(aX + bY, cZ + dU) = acCov(X, Z) + adCov(X, U) + bcCov(Y, Z) + bdCov(Y, U)$

- Law 4: Using Laws 1, 2, and 3, and the knowledge that $Cov(X, Y) = Cov(Y, X)$, leads to the following: $Var(aX + bY) = Cov(aX + bY, aX + bY) = a^2Var(X) + b^2Var(Y) + 2abCov(X, Y)$
- Law 5: An important special case of Law 4 is where $Cov(X, Y) = 0$, $Var(aX + bY) = a^2Var(X) + b^2Var(Y)$

The resulting equations for the observed variables (V) can be written as follows:

$$V_i = \lambda_{ij}F_j + E_i \quad (2)$$

Or, equivalently,

$$X_i = \lambda_{ij}\Xi_j + \delta_i \quad (3)$$

where i is the number of the indicator, j - latent factor indicator, F and Ξ are factors, E and δ - errors. With two indicator variables (V_1 and V_2), loading on the same factor F_1 , their implied covariances are expressed as follows:

$$\begin{aligned} Cov(V_1, V_2) &= Cov(\lambda_{11}F_1 + E_1, \lambda_{21}F_1 + E_2) \\ &= Cov(\lambda_{11}F_1, \lambda_{21}F_1) + Cov(\lambda_{11}F_1, E_2) + Cov(E_1, \lambda_{21}F_1) + Cov(E_1, E_2) \\ &= \lambda_{11}\lambda_{21}Cov(F_1, F_1) + \lambda_{11}Cov(F_1, E_2) + \lambda_{21}Cov(E_1, F_1) + Cov(E_1, E_2) \\ &= \lambda_{11}\lambda_{21}Cov(F_1, F_1) \\ &= \lambda_{11}\lambda_{21}Var(F_1) \\ &= \lambda_{11}\lambda_{21} \end{aligned} \quad (4)$$

When two indicator variables (V_1 and V_4) load on different factors (F_1 and F_2), the picture is calculated similarly, though slightly more complicated:

$$\begin{aligned} Cov(V_1, V_4) &= Cov(\lambda_{11}F_1 + E_1, \lambda_{4,2}F_2 + E_4) \\ &= Cov(\lambda_{11}F_1, \lambda_{4,2}F_2) + Cov(\lambda_{11}F_1, E_4) + Cov(E_1, \lambda_{4,2}F_2) + Cov(E_1, E_4) \\ &= \lambda_{11}\lambda_{4,2}Cov(F_1, F_2) + \lambda_{11}Cov(F_1, E_4) + \lambda_{4,2}Cov(E_1, F_2) + Cov(E_1, E_4) \\ &= \lambda_{11}\lambda_{4,2}Cov(F_1, F_2) \end{aligned} \quad (5)$$

The rest of the calculations follow the same logic, though relationships become much more complicated with increased number of indicators and variables. For the model presented in this paper, we estimated the model for 15 exogenous latent factors with 39 indicators and six endogenous latent factors with 18 indicators.

With respect to network characteristics, maximum network size reported was 19 connections, though the average network size of each respondent was 8–9 people. Also, the overall network turned out to have three separate connected components, which may indicate that inside the evaluated department, there are

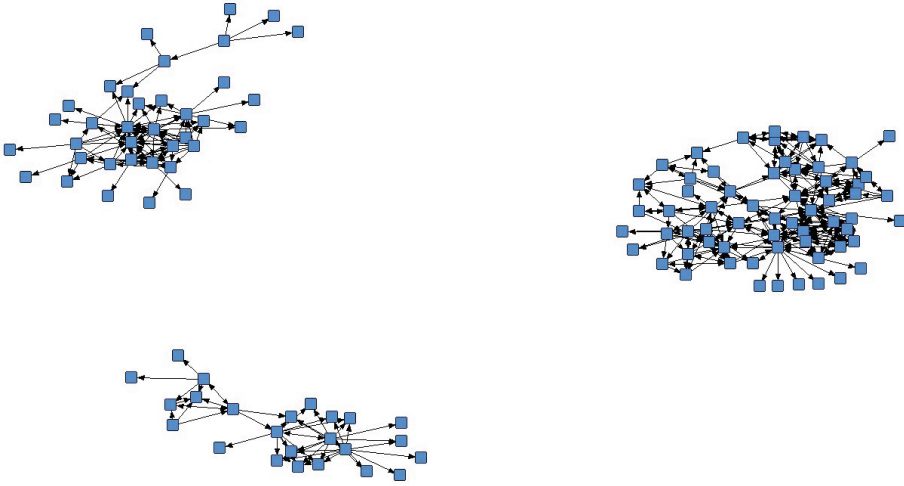


Fig. 1. Organizational network

three clearly distinct informal subgroups (though none were reported at the time of data collection). Resulting network is depicted in Fig. 1.

Diagram representing the overall model is presented in Fig. 2, with only the statistically significant results shown. Model was subjected to the standard tests of fit; measurement model was built before structural model, and only the significant factor loadings (above 0.7 per generally accepted standards) were retained. Then, hypothesized structural relationships were tested one at a time, and only the significant relationships were retained in the final model.

4 Results

Overall, study hypotheses were partially supported. Friendship network showed positive association with advice behavior, though advice network did not have any associations with OCB. Stronger supervisor-subordinate network was related to stronger manifestations of OCB, which may indirectly indicate impression management motives. Strictly professional ties did not seem to have any effect on the manifestation of OCB, but this may be due to the fact that all networks were drawn on the same nodes (people), and separating advice from friendship and professional networks have somewhat affected the variance explained by individual network type vs. the overall network.

In addition to the tested hypotheses, the study confirmed previously explored relationships, such as between higher level of responsibility and higher OCB, and higher job demands and lower levels of OCB. Confirmation of previously shown relationship was an important element of this study, because it demonstrated the overall validity of constructs used in the study.

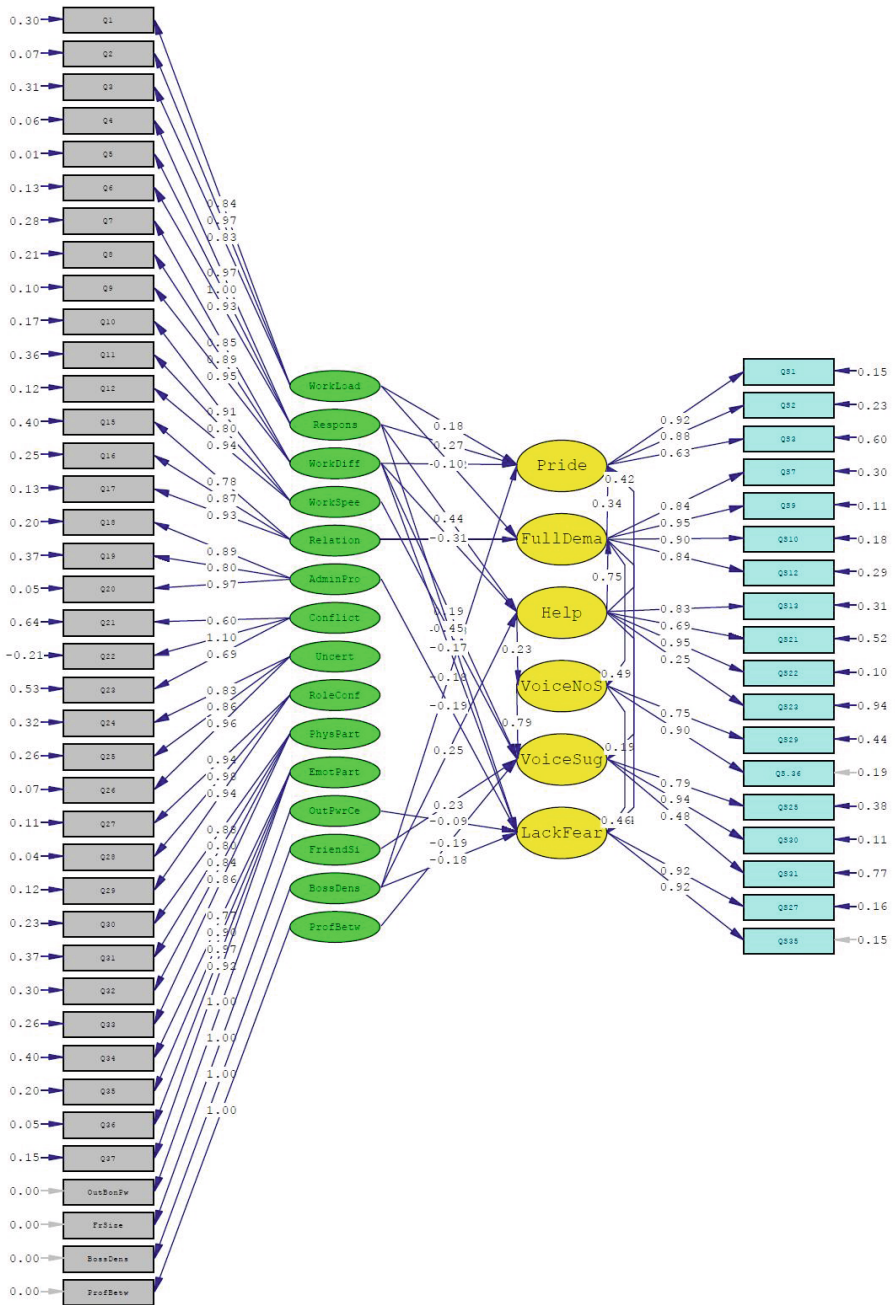


Fig. 2. Structural model of the hypothesized relationships

5 Discussion and Conclusion

The purpose of this study was to examine the role that networks play in manifestation of organizational citizenship behavior. Despite numerous studies of this important organizational construct, and its clearly relational nature, only limited work was done to examine it in the con-text of organizational networks. This study filled an important gap in the field of management by showing that networks, indeed, play an important role in manifestation of organizational citizenship behavior. This study has several important implications. First, it makes an important theoretical contribution by extending the social exchange theory of OCB emergence. Second, it has some practical implications as it demonstrates that existence of certain types of networks in an organization is conducive to OCB manifestation.

This study is not without limitations. First, it was conducted on a limited set of office employees in an insurance organization; the very nature of the business with its client orientation may be conducive to OCB, so spuriousness of the found relationships cannot be ruled out. Second, the study is rather small and is limited only to the HR department of this company. Further testing of the proposed model is warranted before more generalized results could be drawn.

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