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ABSTRACT

This study is concerned with the integration, cohesiveness, and satisfaction of communication processes within a large, complex organization. Since smaller, less complex organizations are considered to have a higher degree of integrativeness, the increased size and complexity of an organization diminishes the integration of communication processes and makes them more difficult to measure. This study compares individual integrativeness, cohesiveness, and satisfaction scores of 963 members of a financial organization with a set of structural communication and other variables. Communication network roles as well as integrativeness scores were generated through a network analysis computer program developed at Michigan State University. In addition, a regression analysis provides the linear and certain curvilinear relationships between integrativeness, cohesiveness, and satisfaction and a set of interrelated, independent variables. For organizations whose communication control and decision making processes are largely disintegrated, the study suggests direct implications with regard to integrating those processes occurring among functionally distant or non-cohesive individuals and groups. (Author/RB)

Communication Integration and Satisfaction in a Complex Organization

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Abstract

Most organizational activities consist of communication flows. All of these flows are integrated in a communication network that may differ considerably from the ideal network reflecting the hierarchical structure. Such communication networks give the organization its own dynamic characteristics.

This study is concerned with the integration, cohesiveness and satisfaction of communication processes wtihin a large, complex organization. Since smaller, less complex organizations are considered to have a higher degree of integrativeness, the increased size and complexity of an organization diminishes the integration of communication processes and makes them more difficult to measure.

In this study, the author compares individual integrativeness, cohesiveness and satisfaction scores of 963 members of a financial organization with a set of structural communication and other variables. Communication network roles as well as integrativeness scores were generated through a network analysis computer program developed at Michigan State University. In addition, a regression analysis provides the linear and certain curvilinear relationships between integrativeness, cohesiveness and satisfaction and a set of interrelated, independent variables.

For organizations whose communication control and decision making processes are largely disintegrated, the study suggests direct implications with regard to integrating these processes occurring among functionally distant or non-cohesive individuals and groups.

Communication, Integration and Satisfaction in a Complex Organization

Rolf T. Wigand *

The present study is concerned with the behavior of an organization as reflected in the activities, interrelations, performances and perceptions of almost one thousand employees. The organization is a large East coast-based financial institution with offices in most Western countries. The members of the organization which participated in this study constitute the make-up of one department within that organization.

This study was conducted to function as a diagnosis of what exists in the organization rather than to test any specific set of propositions. The design of the study as well as the measured variables are viewed in the light of Stogdill's (1959) formulation of role behavior and organizational achievement. Stogdill proposes a developmental process of role structures and organizational norms around task objectives which tends to link supervisory leadership and employee satisfaction to group goals and cohesiveness. Cohesiveness of a group is defined by Stogdill (1959) as intermember harmony and mutual support. The cohesiveness of an entire organization is defined as member loyalty to, and support of, the organization such that its structure and operational integrity under stress are maintained.

Using Stogdill's (1959) conceptual framework the author analyzes questionnaire data about the employees' communication contact practices within their respective department and various individual perceptions and attitudes about the

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organization as well as about the individuals themselves. The communication contact data (including various structural and role measures) are used to see how these relate to measures of integration, cohesiveness and job satisfaction.

Network role. Participation as well as involvement of employees in their work are frequently occurring topics in the literature concerned with the improvement of human performance and organizational effectiveness. The interaction among individuals who are members of an organization is considered by many researchers as a reflection and by some as a determinant of the organizational environment, satisfaction-performance, as well as the employee's and management's attitudes.

Many considerably varying approaches have been taken with regard to participation of employees in the organization. Since this study emphasizes the relationship of communication behavior to various other variables, participation is viewed as it is reflected in the communication patterns of employees.

Weber (1967), Katz and Kahn (1966), Etzioni (1961), and March and Simon (1958) indicate that the flow of communication in formal organizations is generally expected to reflect the authority structure of the organization. A study by Weinshall (1966) as well as a number of other researchers indicate that communication does not follow the prescribed paths suggested by the orgnization chart of the organization. These studies suggest that different methodological classifications were necessary when analyzing the communication patterns of individuals within an organization or network.

A different approach is taken by a number of researchers that view the organizational communication patterns in form of a system. The system or network will have components and connections in various shapes and forms. The patterns that some components form may be conceived of as groups, i.e., a set of individuals who talk to each other more than to others. Those individuals that connect groups

have been called liaison agents if they do not belong mainly to the groups which they connect. In case they belong to a group and still contact individuals in other groups, they have been labeled bridge agents. Furthermore, those people who as a result of the analysis of a communication network have no contact to others are called isolates. Lastly, there are those that cannot be classified into either scheme who are, for convenience's sake, called others. Research efforts in this area were made by Festinger (1949), Jacobson and Seashore (1951), Weiss and Jacobson (1955) and Weiss (1956).

Integration. The concept of integration is here viewed at the individual level, i.e., we are concerned with the degree to which individuals are integrated in their communication practices in a group. Blau (1960) states that integration prevails in a group if bonds of attraction unite its members. Individuals interested in becoming integrated group members find themselves under pressure to impress the other members such that those realize that they would make attractive associates. An individual is considered to be integrated in a group if the other members find him sufficiently attractive to associate with him freely and accept this individual in their midst as a co-equal.

Scheidlinger (1952), Schutz (1960) and Bales (1950) provide differing schemes and classifications describing the various phases of the integration process. A detailed review of the concept of integration is offered by Seibel (1972).

Cohesiveness. Research in the area of cohesiveness overlaps to a considerable degree with research concerned with integration. Group cohesiveness was first discussed by Festinger, Schachter and Back (1950). The term is used to demonstrate that within groups homogeneous attitudes and behaviors exist. In contrast to this situation, between groups show markably differences in attitudes and behaviors.

There exist many definitions for cohesiveness, most of which emphasize the notion of interpersonal attraction that individuals have toward a group or that group members have toward each other.

Job satisfaction. Job satisfaction has been viewed from three differing causal perspectives. The first one--dating back to the human relations movement--simply states and emphasizes the causal direction that the employee's satisfaction directly influences the quality and quantity of individual and group output. This theoretical position has been emphasized in the work by Vroom (1964) and Likert (1967).

The second theoretical positions with regard to job satisfaction points out that satisfaction and performance are mediated by a number of moderating variables; i.e., satisfaction and performance does not covary under all conditions (Cummings & Schwab, 1970). Some of these moderating variables have been studied in the past. Korman (1968, 1970) examined personality factors such as self-esteem and Carlson (1969) studied the moderating effects of ability factors.

The last theoretical approach is best described in the work by Porter and Lawler (1968) emphasizing that satisfaction is not to be understood as a causal condition determining performance, but that satisfaction is dependent upon performance. Variance in performance, then, is understood as a determinant of rewards and thus leading toward higher or lower satisfaction.

In this study, issues related to job satisfaction are viewed as functions of the relationships between what the employee wants from his job and what he perceives it as offering or entailing. In this context, job satisfaction is conceptually understood as the result of interaction between the individual employee and his environment. This study views job satisfaction to a large degree in the theoretical framework of Porter and Lawler (1968) as described above.

Method

All individuals in the department under study completed a questionnaire resulting in an N of 963. One part of the questionnaire provided information with regard to the subject's communication contact practices thus reflecting his communication relationships to others in the department. mmunication contact data were collected for three network topics: production, maintenance and innovation. All data discussed in this study refer only to the production network for which three ordinal frequency levels were chosen: more than once a day, once a day, once or twice a week. The other part of the questionnaire measures a variety of individual perceptions and attitudes.

1. Network analytic measures. The relational data of the 963 subjects were analyzed as they are reflected in the existing production communication network. Communication networks have recently enjoyed considerable attention among a group of researchers at Michigan State University. In the past, an important drawback constituted the storage of sociometric information in the form of sociomatrices, i.e., as the network becomes large in size, meaningful and manageable analysis becomes increasingly difficult. Even the use of computers in storing sociometric data in matrix form is inefficient and prohibitively expensive as the network becomes large. An algorithm was developed by Richards (1971) that overcame this problem. In the meantime, this approach has been computerized in a complex program that allows for the efficient and inexpensive analysis of social systems of up to 5,000 individuals.

Communication networks are generated when analyzing the communication relationships among members of an organization along a predetermined dimension. The recognition of various patterns in existing relationships among network members allows individuals to be classified into various roles: group and bridge members,

liaisons, isolates, etc. Once a communication network has been categorized, the structural properties of particular network patterns become of theoretical importance and can be described and measured with various graph-theoretic and information-theoretic approaches. Some of these appear in the form of indices such as connectivity, integrativeness, dominance, flexibility, stability and others. Each individual's communication relationship can be measured with regard to frequency, duration, importance as well as directionality and reciprocity.

This last discussion indicates that the state of a given communication structure existing in an organization can be rather accurately measured and described.

Typically in network analysis as well as in this study seven network roles are distinguished:

a. Isolate - completely isolated from the rest of the network;

b. Attached isolate - those individuals who have only a single link to a network participant;

c. Dyad - a pair of individuals with links only to each other;

d. Tree node - an individual who himself is not a participant but has isolates attached to him;

e. Group member - an individual who has more than some criterion percentage of his links with other members of the same group;

f. Liaison - an individual who has more than some criterion percentage of his links with group members, but less than some criterion percentage with members of any single group;

g. Type other - an individual who fails to meet the above criteria and is a non-isolate.

In this study, the variable network role was created through an additively computed index from these seven network roles. This index was constructed such that its mean value would center around the score chosen for group members as a network role. In addition, the number of links with which an individual is connected to other network participants is treated as an independent variable (number of links) in this study.

2. Measure of integration. Individual integration is defined as the degree to which the individuals--to which a person is linked--are linked to each other. It can readily be seen that group members are more likely to have high integrativeness scores than other network participants. The basic unit for the integration score is the relationship or link that an individual has with another person.

3. Measure of cohesiveness. Cohesiveness is measured by the question "How well do the people in your section get along together (degree of getting along on a 5-point scale)?" It is felt that this question is comparable to previous operationalizations of cohesiveness emphasizing intermember harmony, mutual support as well as interpersonal attraction.

4. Job satisfaction. Job satisfaction is an additively computed index of nine questions directed toward the degree (on a 4-point scale) to which the individual can:

a. show his skills,

b. do first-rate work,

c. learn new things,

d. make his own decision,

e. become a better person,

f. do something that is good for other people,

g. feel worthwhile, significant as a person,

h. get ahead, get promoted within the firm,

i. enjoys getting to know other people.

Statistical Treatment

Means as well as standard deviations and zero-order correlations were computed for all vairables. Linear as well as quadratic components were correlated

for network role, number of links with which an individual is connected to others, integration score, involvement desire and desire for information. For a discussion describing this methodology, see Cohen (1968), Kerlinger and Pedhazur (1973), and Gorsuch (1973). In the final analysis, least square, stepwise regression has been used providing a means of choosing independent variables offering the best possible prediction with the fewest independent variables. This particular regression analysis has the advantage of providing the researcher with a near-optimum solution at a specified tolerance level (in this study .05). The r-square statistic reflects the proportion of the variance in the dependent variable accounted for by the generated regression equation.

Results

Tables 1 and 2 indicate the mean values, standard deviations and the intercorrelations among all variables, respectively. With the limited space available, the intercorrelations for basic variables are discussed in connection with Tables 3 through 6.

Table 3 presents the results of the regression analysis of the variable Network role as a dependent variable. When the independent variables are regressed on the variable Network role an R^2 of .38 results ($p<.05$ for all beta coefficients). Integration (L) correlates with Network role .57. The beta weights of the variables Job importance (as compared to one's life), Involvement desire (L), Perceived uncertainty, Degree of own decision making and Desire for information (L) are -.11, -.09, .12, .07, and .09, respectively.

The variance explained for the dependent variable Integration amounts to .36 as indicated in Table 4. The independent variable Network role (L) shows a correlation with Integration of .57 and a respective beta weight of .59 ($p<.05$). The beta coefficients ($p<.05$) for the independent variables Routineness of job,

Co-worker's perceived perception of employee, Involvement desire (L), Job importance (as compared to one's life), Degree of own decision making and Individual's perceived worth are .08, .07, .05, .06, -.13, and .10, respectively.

The dependent variable Cohesiveness and its statistical relationships are represented in Table 5. The explained vairance results in an R^2 of .27 ($p<.05$). The zero-order correlation of the independent variables Interpersonal help (within the department) with Cohesiveness is .46; the respective beta coefficient is .42 ($p<.05$). The other independent variables that entered the regression equation at the .05 level of significance are Involvement desire (L), Perceived informedness, Job importance (as perceived by one's friends), the quadratic component of Desire for information, Interpersonal trust, Number of links (L) and Degree of own decision-making with respective beta coefficients of .08, .09, .12, -.02, -.08, -.08, -.08.

Lastly, Table 6 presents the results of the zero-order and standardized regression correlations with the variable Satisfaction as the dependent variable. Column 1 indicates no particularly high zero-order correlations. The eleven variables that entered the least square, stepwise regression account for an explained variance of .35 ($p<.05$). The two highest beta weights are -.22 and .20 for Routineness of job and Job attraction, respectively. The remaining independent variables are Supervisor's perceived perception of employee, the quadratic component of Network role, Perceived interpersonal help by others (in general), Perceived uncertainty, Job importance (as compared to one's life), Job importance (as perceived by one's friends), Perceived informedness of department, Firm's perceived perception of employee and Job's comparison with other companies with the corresponding beta weights (all at the .05 level of significance) .08, .07, -.07, -.06, -.08, -.08, -.11, .17, and -.08.

Discussion

Given the large number of variables that have been entered into the four regression equations, two questions may be asked: 1. How much variance has been explained, and 2. what is the order of importance of these variables in forming each respective regression equation?

In the case of the dependent variable Network role (R^2=.38) the single best predictor is the linear component of Integration with a beta weight of .57. This becomes rather obvious when realizing the zero-order correlation for these two variables is .57. The high correlation and regression weight might be explained by the author's choice of centering the mean value for the variable Network role around that of group members. Typically, the number of group participants in a given network is rather high, at least higher than most other network roles. Since group members, obviously, have rather high integration scores by definition, this may explain the high correlation with integration.

Looking at the best predictor in the regression equation for Integration (R^2=.36) the linear component of Network role stands out with a beta coefficient of .59. A similar explanation--only specifying the reverse situation in terms of prediction--as rendered above seems to be applicable here.

The dependent variable Cohesiveness indicates a strong zero-order correlation (.46) with Interpersonal help (within the department). The corresponding beta weight is the highest predictor of Cohesiveness (R^2=.27) with a value of .42. This relationship seems to be documented with previous research by Blau (1960a, 1960b).

In the case of Job satisfaction, there are a number of relatively high predictors, in part resulting in a total R^2 of .35. The beta weight of -.22 for Routineness of job seems to assert Maslow's (1943) theory of self-actualization

that an individual derives satisfaction from job-related activities which allow him to use his skills and abilities. The Routineness of job seems to measure the opposite of a utilization of skills and abilities. Vroom (1967) found the same to be true for blue-collar workers in a Canadian oil refinery. The importance of routine aspects of jobs has been noted by Gellerman (1963) drawing from the works of Argyris, Kornhauser, Likert and others. The predictor Job attraction with the simple correlation coefficient of .23 shows a beta weight of .20.

Likert (1967) in his Systems Theory of Management holds that the subordinate's perception of supportive relationship on the part of his superior is one determinant of a high degree of job satisfaction. This position is weakly supported by the variable Supervisor's perceived perception of employee with a beta weight of .08; the corresponding zero-order correlation, however, shows a coefficient of .22. To some degree, additional support is provided by the correlation coefficients for the variable Firm's perceived perception of employee with a positive zero-order correlation of .26 and a beta coefficient of .17.

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Table 1. Means and standard deviations of all variables

Variable(s)	$\bar{X}$	SD
1. Network role (L^1)	3.44	1.98
2. Network role (Q^2)	1.00	.62
3. Number of links (L)	2.03	2.01
4. Number of links (Q)	1.00	1.62
5. Integration (L)	.19	.31
6. Integration (Q)	1.00	26.82
7. Cohesiveness	1.70	.76
8. Involvement desire (L)	1.29	.57
9. Involvement desire (Q)	5.31	27.86
10. Desire for information (L)	2.57	.60
11. Desire for information (Q)	3.72	17.64
12. Job importance (as compared to one's life)	2.54	.67
13. Job importance (as perceived by one's friends)	1.66	.77
14. Individual's perceived worth (as a human being)	2.24	.75
15. Degree of own decision-making	2.28	.77
16. Job's possibility for individual growth	2.23	.81
17. Job's perceived social meaningfulness	2.26	.78
18. Firm's perceived perception of employee	3.90	1.76
19. Supervisor's perceived perception of employee	4.31	1.51
20. Co-worker's perceived perception of employee	4.59	1.23
21. Communication contact difficulties	3.04	.80
22. Interpersonal help (within the department	1.67	.75

[1] L denotes linear

[2] Q denotes quadratic

Table 1. Means and standard deviations of all variables (continued)

Variable(s)	$\bar{X}$	SD
23. Perceived interpersonal help by others (in general)	2.31	.74
24. Perceived uncertainty	1.65	.61
25. Interpersonal trust	1.82	.83
26. Perceived informedness of department	2.15	.56
27. Routineness of job	2.27	1.07
28. Job's comparison with other companies	2.86	1.65
29. Job satisfaction	23.50	12.42
30. Job attraction	2.67	.98

Table 2-A. Zero-order correlation matrix for all variables

	1	2	3	4	5	6	7	8	9	10	11
1. Network role (L^1)	1.00										
2. Network role (Q^2)	-.07*	1.00									
3. Number of links (L)	.78***	.46***	1.00								
4. Number of links (Q)	.16***	.12***	.64***	1.00							
5. Integration (L)	.57***	-.11***	.46***	.06	1.00						
6. Integration (Q)	.03	.11***	.03	-.00	.07*	1.00					
7. Cohesiveness	-.12***	.03	-.12***	-.06	-.04	-.03	1.00				
8. Involvement desire (L)	-.12***	-.01	-.14***	-.09	-.01	-.02	.12***	1.00			
9. Involvement desire (Q)	-.07*	-.04	-.06	-.07*	-.06	-.01	.09	.88***	1.00		
10. Desire for information (L)	.14***	.01	.16***	.10**	.02	.02	-.13***	-.29***	-.02	1.00	
11. Desire for information (Q)	-.08	-.05	-.12	-.05	.02	.01	.13	.20	.90***	-.70	1.00
12. Job importance (as compared to one's life)	-.13***	.04	-.04	.03	.00	-.03	.12***	.05	.01	-.09**	.03
13. Job importance (as perceived by one's friends)	.04	-.03	.11***	.11***	.08*	-.03	.17***	-.03	.03	-.05	.03
14. Individual's perceived worth (as a human being)	-.03	.04	-.10**	-.07	-.00	.04	-.09**	.09*	-.01	.01	.01
15. Degree of own decision-making	.03	.03	.01	.02	-.08*	-.01	-.15***	.06	.02	.03	.05
16. Job's possibility for individual growth	.01	.04	.02	.01	-.03	-.05	.11**	.04	-.01	.03	-.04
17. Job's perceived social meaningfulness	-.06	.06	-.11**	-.07	-.07	.04	-.12***	.07*	-.01	-.01	-.02

[1] L denotes linear

[2] Q denotes quadratic

Table 2-B. Zero-order correlation matrix for all variables (continued)

	12	13	14	15	16	17	18	19	20	21	22
12. Job importance (as compared to one's life)	1.00										
13. Job importance (as perceived by one's friends)	.28***	1.00									
14. Individual's perceived worth (as a human being)	-.22***	-.21***	1.00								
15. Degree of own decision-making	-.16***	-.14***	.50***	1.00							
16. Job's possibility for individual growth	-.20***	-.18***	.62***	.49***	1.00						
17. Job's perceived social meaningfulness	-.20***	-.17***	.60***	.43***	.58***	1.00					

[1]L denotes linear

[2]Q denotes quadratic

Table 2-C. Zero-order correlation matrix for all variables (continued)

	1	2	3	4	5	6	7	8	9	10	11
18. Firm's perceived perception of employee	-.08*	-.03	-.12***	-.05	-.05	-.06	-.08*	.09*	-.01	-.05	.05
19. Supervisor's perceived perception of employee	-.01	-.02	-.02	-.02	.02	.04	-.06	.09*	-.02	.00	.03
20. Co-worker's perceived perception of employee	-.03	.02	-.03	.03	.06	.03	-.06	.11**	-.01	-.01	.03
21. Communication contact difficulties	-.02	.00	.03	.01	-.01	.04	-.05	-.09**	-.03	.01	.01
22. Interpersonal help (within the department)	-.11***	.08*	-.12***	-.06	-.05	-.03	.46***	.08*	.13***	-.12***	.09**
23. Perceived interpersonal help by others (in general)	.02	-.02	.05	.02	-.00	.03	.10**	-.08*	-.04	-.02	-.03
24. Perceived uncertainty	.12***	-.05	.15***	.08*	.03	.02	-.03	.02	-.04	.01	-.00
25. Interpersonal trust	.01	.04	-.05	-.08*	-.02	-.04	-.15***	-.05	-.01	.02	-.02
26. Perceived informedness of department	-.09**	.02	-.06	-.00	-.09**	-.01	.15***	-.01	.01	.06	-.09**
27. Routineness of job	-.02	-.02	-.02	-.01	.08*	-.04	.10**	-.02	.11***	-.06	.08*
28. Job's comparison with other companies	-.04	-.06	-.00	-.01	.02	.04	.12***	.01	-.06	-.01	-.08*
29. Job satisfaction	-.17***	.01	-.16***	-.06	-.14***	-.01	-.07	.14***	.64***	-.06	.60***
30. Job attraction	-.09**	-.02	-.12***	-.02	-.09**	-.03	-.08*	.11***	.04	.02	.06

Table 2-D. Zero-order correlation matrix for all variables (continued)

	12	13	14	15	16	17	18	19	20	21	22
18. Firm's perceived perception of employee	-.13***	-.22***	.29***	.24***	.32***	.25***	1.00				
19. Supervisor's perceived perception of employee	-.13***	-.19***	.25***	.26***	.23***	.16***	.42***	1.00			
20. Co-worker's perceived perception of employee	-.01	-.06	.14***	.07*	.13***	.12***	.18***	.27***	1.00		
21. Communication contact difficulties	-.00	.04	-.04	.01	-.08*	-.03	.02	.03	.02	1.00	
22. Interpersonal help (within the department)	.07*	.07*	-.06	-.06	-.08*	-.08*	-.00	-.03	-.07	-.02	1.00
23. Perceived interpersonal help by others (in general)	.11**	.13***	-.19***	-.14***	-.19***	-.13***	-.16***	-.12***	-.12***	.03	.04
24. Perceived uncertainty	.05	.04	-.16***	-.06	-.12***	-.10**	-.11**	-.02	-.00	-.02	-.08*
25. Interpersonal trust	-.04	-.15***	.12***	.16***	.09**	.09*	.16***	.13***	.13***	.08*	-.07*
26. Perceived informedness of department	.14***	.05	-.14***	-.12***	-.16***	-.15***	-.14***	-.24***	-.08*	.01	.10**
27. Routineness of job	.20***	.15***	-.27***	-.24***	-.23***	-.18***	-.10**	-.14***	-.04	-.02	.12***
28. Job's comparison with other companies	.15***	.18***	-.19***	-.18***	-.20***	-.16***	-.15***	-.12***	-.09**	.01	.07*
29. Job satisfaction	-.07*	-.11***	.65***	.56***	.72***	.61***	.26***	.22***	.11**	-.02	.04
30. Job attraction	-.10**	-.20***	.33***	.27***	.29***	.26***	.31***	.27***	.06	-.06	-.00

Table 2-E. Zero-order correlation matrix for all variables (continued)

	23	24	25	26	27	28	29	30
23. Perceived interpersonal help by other (in general)	1.00							
24. Perceived uncertainty	.08*	1.00						
25. Interpersonal trust	-.27***	-.15***	1.00					
26. Perceived informedness of department	.07*	-.02	-.08*	1.00				
27. Routineness of job	.07*	-.04	-.10**	.07	1.00			
28. Job's comparison with other companies	.08*	.04	-.10**	.16***	.02	1.00		
29. Job satisfaction	-.17***	-.11***	.10**	-.10**	-.08*	-.09*	1.00	
30. Job attraction	-.12***	-.15***	.15***	-.08*	-.20***	-.05	.23***	1.00

* $p < .05$
** $p < .01$
*** $p < .001$

Table 3. Zero-order and standardized regression correlation coefficients with Network role as dependent variable

	Variable(s)	(1) Zero-order correlation with network role	(2) Beta coefficients with network role*
5.	Integration (L^1)	.57**	.57
12.	Job importance (as compared to one's life)	-.13**	-.11
8.	Involvement desire (L^1)	-.01	-.09
24.	Perceived uncertainty	.12**	.12
15.	Degree of own decision-making	.03	.07
10.	Desire for information (L^1)	.14**	.09
			$R^2 = .38$

*$p < .05$

**$p < .001$

1_L denotes linear

Table 4. Zero-order and standardized regression correlation coefficients with Integration as dependent variable

Variable(s)	(1) Zero-order correlation with integration	(2) Beta coefficients with integration*
Network role (L^1)	.57**	.59
Routineness of job	.08*	.08
Co-worker's perceived perception of employee	.06	.07
Involvement desire (L^1)	-.01	.05
Job importance (as compared to one's life	.00	.06
Degree of own decision-making	-.08*	-.13
Individual's perceived worth (as a human being)	-.00	.10
		R^2 = .36

*$p < .05$

**$p < .001$

^1_L denotes linear

Table 5. Zero-order and standardized regression correlation coefficients with Cohesiveness as dependent variable

Variable(s)	(1) Zero-order correlation with cohesiveness	(2) Beta coefficients with cohesiveness*
8. Involvement desire (L^1)	.12**	.08
26. Perceived informedness of department	.15**	.09
13. Job importance (as perceived by one's friends)	-.03	.12
11. Desire for information (Q^2)	.03	-.02
22. Interpersonal help (within the department)	.46**	.42
25. Interpersonal trust	-.15**	-.08
3. Number of links (L^1)	-.12**	-.08
15. Degree of own decision-making	-.15**	-.08
		$R^2 = .27$

*$p < .05$

**$p < .001$

1_L denotes linear

2_Q denotes quadratic

Table 6. Zero-order and standardized regression correlation coefficients with Satisfaction as dependent variable

	Variable(s)	(1) Zero-order correlation with satisfaction	(2) Beta coefficients with satisfaction*
27.	Routiness of job	.01	-.22
19.	Supervisor's perceived perception of employee	.22***	.08
2.	Network role (Q^2)	.01	.07
23.	Perceived interpersonal help by others (in general)	-.17***	-.07
24.	Perceived uncertainty	-.11***	-.06
12.	Job importance (as compared to one's life)	-.11***	-.08
13.	Job importance (as perceived by one's friends	-.11***	-.08
26.	Perceived informedness of department	-.10***	-.11
18.	Firm's perceived perception of employee	.26***	.17
28.	Job's comparison with other companies	-.09*	-.08
30.	Job attraction	.23***	.20
			R^2 = .35

*P < .05
**p < .01
***p < .001
[2]Q denotes quadratic