



RESEARCH ARTICLE

2023, vol. 10, issue 1, 119-128

<https://doi.org/10.5281/zenodo.8151101>

## SOCIO-COMMUNICATIONAL INFORMAL INTERACTIONS WITHIN THE SOCIAL REINTEGRATION STAFF IN A ROMANIAN DETENTION UNIT. ROLE MODEL CASE STUDY

Laurențiu-Octavian Mutuleanu  
National Administration of Penitentiaries, Romania

### Abstract

The findings from the study on socio-communicational interactions on informal topics among the social reintegration staff of a Romanian detention unit, using sociometry and organizational network analysis (ONA), have been further explored in this article. The first objective is to investigate the association between the highest values of the "subjective reflection of employees' perception regarding colleagues' knowledge about mobile phones" indicator and the "role model" indicator obtained by group members. The second objective is to investigate the association between the highest values of the "role model" indicator obtained by group members and the "employees' influence power" indicator.

This research is useful for decision-makers in prisons because it shows new ways (related to the first study) to discover key opinion informal leaders, that individuals who benefit from increased social capital, which in fact represents sustainable human resources for organizational leadership. Such employees can contribute to the generation and facilitation of knowledge transfer or information flow within the network, including promoting the adoption of new management policies, increasing the cohesion degree within the group and providing operational and emotional support to colleagues.

The sources of the research are books and articles that develop the subject of social network analysis, some of which are written by well-known authors.

In order to achieve proposed objectives, it was necessary to discover the employees' informal socio-communicational networks, both the social support network and the trust network, within the social reintegration sector, which represent the target group.

The networks were identified by administering a questionnaire to the members of the social reintegration sector. The purpose of the questionnaire was to obtain and illustrate the relationship choices (connections) expressed by each employee in the context of informal social interactions on topics unrelated to work. The questionnaire was administered digitally through the Google Forms platform with the agreement of the participants, after obtaining approval from the institution's management.

After depicting the employees' informal networks, specific centrality measurements were applied using sociometry and ONA research methods to identify the values of the "role model" indicator, "power of influence" (Eigenvector-Authority In) indicator and the employees' "subjective reflected perception" indicator (members of the target group). The quantifiable values of the indicators were obtained by applying statistical calculation procedures specific to sociometry and ONA, using both Microsoft Excel and IBM i2 Analyst's Notebook software.

After testing hypotheses in the context of discussions about leisure activities, the following conclusions were drawn regarding individuals who benefit from increased social capital, respectively those who occupy the most important positions on the "role model" status value scale related to knowledge of mobile phones:

a) they are in consonance with the highest values obtained for the "subjective reflected perception of employees' regarding colleagues' knowledge about mobile phones" indicator. Individuals recognized as "role models" are the most preferred by colleagues for requesting advice on purchasing a mobile phone.

b) they also have the highest values on the "employees' power of influence" indicator regarding this topic, validating the status of individuals considered "role models" within the group regarding mobile phone knowledge.

**Keywords:** *Organizational Network Analysis, role model, influencer, informal social interactions, social support network, trust network*

## INTRODUCTION

In the modern times, social network science has been scientifically developed for the study of social interactions by several authors, including Georg Simmel, Emile Durkheim, Ferdinand Tönnies or Jacob Moreno. Currently, the "organizational network analysis" (ONA) method has been developed for studying interactions between members of an organization.

Through the application of the sociometric method and organizational network analysis, this study identifies the informal networks of the social reintegration group in a detention unit in Romania and, subsidiarily, informal leaders, also known as "influencers", revealed by the work collective' members' statuses indicators: "role model" (prestige) and "Eigenvector-Authority In" (influence).

The application of centrality measures on informal networks that represent employees' relational preferences allows for the identification of the value of two indicators, namely prestige and influence, which can be considered employees' social capital (Ciupercă & Vlăduțescu, 2014), within the target group.

According to Krackhardt & Hanson theory (1993), the informal networks identified in the study can also be characterized as a manifestation of the social support and trust connections present within the employees' target group.

The main advantages of identifying employees' informal networks refer to the discovery of useful resources, both for employees' individual professional development and for contributing to improving or facilitating organizational performance, such as: providing the necessary operational and emotional informational support to employees for effectively managing critical/crisis situations and reducing uncertainty (Charoensukmongkol & Phungsoonthorn, 2022), optimizing and facilitating employees' learning process of operational work procedures (Hunter & Wolf, 2016; Boud & Middleton, 2003), assessing the meaning of lucrative activities carried out in the organization in order to raise awareness of their significance for oneself, organization and community (Fan & Dawson, 2022), optimizing leadership style and human resource management policies (Liu & Moskvina, 2016).

According to Hâncean (2014), Krackhardt suggests that social network analysis can be applied to explain career success, emphasizing the significance of social capital, which provides a different perspective from the conventional focus on human capital. Furthermore, Barabasi (2018) provides a general explanation from the perspective of social network science regarding how individuals achieve success in modern society, defining it as a collective phenomenon that is influenced by the quality of networking or social connections.

The theoretical and methodological toolsets provided by network science are specifically crafted to address the interconnected nature and inherent interdependence among individuals (Nordlund & Fierăscu, 2018).

Once the informal networks are known, it is also possible to identify individuals who benefit from preferential values of the "role model" and "Eigenvector-Authority In" status indicators, which can also be considered vectors of professional performance through their significant contribution to generating and facilitating the information flow and knowledge transfer within the work collective.

After identifying the informal networks, it becomes possible to pinpoint individuals who are privileged in terms of the "role model" and "Eigenvector-Authority In" status indicators. These individuals are seen as key contributors to professional performance due to their ability to generate and facilitate the information flow and knowledge transfer among colleagues within the work collective.

The literature suggests that within an organization, knowledge transfer (including professional knowledge) within the organization is occurred inclusive from experienced employees who have accumulated a significant amount of professional knowledge to those with less experience, where the former is recognized as "role models". Thus, experienced employees are usually regarded as valuable and credible sources for providing the necessary information for learning professional skills to those with less experience, providing guidance and support to them (Gibson & Barron, 2003; Murray, 2002).

In other words, individuals who occupy important positions on the "role model" status values scale contribute decisively to the creation and consolidation of organizational norms, values, and habits, and subsequently to the creation of organizational culture and the professional development of employees (Gibson & Barron, 2003; Murray, 2002).

According to ONA methodology, Lockwood (2006) defined role models as "individuals who provide an example of the kind of success that one might achieve, and often also provide a template, of the behaviors that are needed to achieve success" (Henry & Nelson & Lewis, 2017). Complementary, Gibson defines role modelling as "a cognitive construction based on the attributes of people in social roles an individual perceives to be similar to him or herself to some extent and desires to increase perceived similarity by emulating those attributes" (Gibson, 2004).

Employees who hold influential positions on the "role model" status value scale are defined as "influencers" or group leaders. These positions can be formal if the employees hold management positions, or informal if they do not (Demir & Ozkan, 2015; Burt, 2007; Gibson & Barron, 2003; Murray, 2002).

Employees with significant informal influence can be identified through the application of specific centrality measures, particularly related to the "Eigenvector" indicator, in ONA methodology. According to it, "eigenvector centrality is a more sophisticated view of centrality: a person with few connections could have a very high eigenvector centrality if those few connections were to very well-connected others" (Hansen & Shneiderman & Smith, 2010), thus being identified those employees who have the greatest influence within the group.

## METHODS, TESTING HYPOTHESES AND RESULTS

The study's novelty lies in utilizing sociometry and ONA research methods to identify informal networks and leaders within a employees' group in a Romanian prison unit, with the aim of providing decision support for management policies.

The sources of the research are books and articles that develop the subject of social network analysis, some of which are written by well-known authors.

The article aims to study socio-communicational interactions on informal topics among social reintegration staff in a detention unit in Romania, using sociometry and Organizational Network Analysis (ONA) research methods.

The research has two main objectives, the first one is to investigate the association between the highest values of the "subjective reflection of employees' perception regarding colleagues' knowledge about mobile phones" indicator and the "role model" indicator obtained by group members. The second objective is to investigate the association between the highest values of the "role model" indicator obtained by group members and the "employees' influence power" indicator.

In order to achieve proposed objectives, it was necessary to discover the employees' informal socio-communicational networks, both the social support network and the trust network, within the social reintegration sector, which represent the target group.

The networks were identified by administering a questionnaire to the members of the social reintegration sector. The purpose of the questionnaire was to obtain and illustrate the relationship choices (connections) expressed by each employee in the context of informal social interactions on topics unrelated to work. The questionnaire was administered digitally through the Google Forms platform with the agreement of the participants, after obtaining approval from the institution's management.

After depicting the employees' informal networks, specific centrality measurements were applied using sociometry and ONA research methods to identify the values of the "role model" indicator, "power of influence" (Eigenvector-Authority In) indicator and the employees' "subjective reflected perception" indicator (members of the target group). The quantifiable values of the indicators were obtained by applying statistical calculation procedures specific to sociometry and ONA, using both Microsoft Excel and IBM i2 Analyst's Notebook software.

Based on the scientific appreciations mentioned in this study were formulated working hypotheses. To test these hypotheses, centrality measurements were utilized to analyze the employees' informal networks within the social reintegration sector of a detention unit in Romania.

### Testing the work hypotheses of the research

#### Hypothesis 1

Considering the definition of the "role model" concept/status/indicator, by utilizing specific centrality measurements of the "Degree In" indicator in the ONA methodology, thus can be calculated the "role model" status values and the "subjective reflected perception of employees' regarding colleagues' knowledge about mobile phones" indicator values. Specifically, given that the "Degree In" centrality measurement is a ONA` method of accounting for the direct connections each member has with others within the group (Golbeck, 2015), it was applied to calculate the value of each person's "role model" status (prestige) and "subjective reflected perception" indicator.

Taking into account some characteristics presented in the literature regarding employees who have important positions on the "role model" status value scale within the group, such as the increased utility of knowledge held by employees who occupy important positions on the "role model" status value scale (Gibson&Barron, 2003; Murray, 2002) and, moreover, based on the idea that it is desirable for employees' perception of their colleagues' knowledge to be in line with the relational choices they make when they need to seek collegial support to obtain the most useful information for making an optimal choice, the following hypothesis was formulated.

**Hypothesis no. 1** - Employees with the highest values of the "subjective reflected perception of employees' regarding colleagues' knowledge about mobile phones" indicator (independent variable), also benefit from the highest values of the "role model" status indicator (dependent variable).

The value of the "subjective reflected perception of employees' regarding colleagues' knowledge about mobile phones" indicator, which generally reflects the perception about colleagues' degree of informing or the possibility

of accessing the most useful information regarding mobile phones is calculated by identifying, centralizing, and processing responses regarding the preferred dialogue partners (connections) of each member.

The value of the "role model" status indicator, which generally reflects the employees' prestige (members of the target group), is calculated by identifying, centralizing, and processing responses regarding the preferred dialogue partners (connections) of each member for requesting advice in order to purchase a mobile phone.

The both indicators, respectively "role model" indicator and "subjective reflected perception of employees' regarding colleagues' knowledge about mobile phones", are determined in two ways, using the following centrality measures:

**The first way of determining the two indicators:**

In the first way, the value of the "role model" indicator as employee' prestige degree (Degree In1) and "subjective reflected perception of employees' regarding colleagues' knowledge about mobile phones" indicator (Degree InPS1) are determined by identifying connections among group members (as indicated by each member) in order to rank individuals based on the number of choices they receive within the group.

After centralizing the responses and processing them using centrality measures, the following highest Degree (InPS)1 and Degree (In)1 values for employees within the social reintegration sector are obtained:

- a) In the first place, with 13 points (Degree InPS)1, is Dumitru Mihai, also obtaining 11 points of the Degree (In)1 indicator;
- b) In the second place, with 11 points (Degree InPS)1, is Muresan Daniel, also obtaining 10 points of the Degree (In)1 indicator;
- c) In the third second, with 4 points (Degree InPS)1, is Croitoru Albert, also obtaining 7 points of the Degree (In)1 indicator.

Regarding to the hypothesis no. 1 statement, it is observing that, in the same order, the employees who obtained in the same order the highest score of the " subjective reflected perception" indicator (Degree InPS1) also obtained the highest values of the "role model" status indicator (Degree In1).

Therefore, hypothesis no.1 is validated, given that the concordances in the hierarchy of the values of the two indicators Degree (InPS)1, respectively Degree (In)1.

**The second way of determining the two indicators:**

In the first way, the value of the "role model" indicator as employee' preferential prestige (Degree InP1) the "subjective reflected perception of employees' regarding colleagues' knowledge about mobile phones" indicator as employee' preferential subjective reflected perception (Degree InPS2) are determined by identifying connections among group members (as indicated by each member) in order to rank individuals based on the order in which they are chosen, as well as the number of choices they receive within the group.

Based on these two criteria, matter for determining both indicators, selected employees are assigned by colleagues with different weights according to the predetermined scoring system: 2 points for the most preferred (the best) option, 1 point for the second (the last) preferred option.

After centralizing responses and processing them using centrality measures, the following highest Degree (InPS)2 and Degree (InP)1 values for employees within the social reintegration sector are obtained:

- a) In the first place, with 24 points (Degree InPS)2, is Dumitru Mihai, also obtaining 18 points of the Degree (InP)1 indicator;
- b) ) In the second place, with 17 points (Degree InPS)2, is Muresan Daniel, also obtaining 14 points of the Degree (InP)1 indicator;
- c) In the third second, with 5 points (Degree InPS)2, is Croitoru Albert, also obtaining 11 points of the Degree (InP)1 indicator.

Regarding to the hypothesis no. 1 statement, it is observing that, in the same order, the employees who obtained the highest score of the "subjective reflected perception" indicator (Degree InPS2) also obtained in the same order the highest values of the "role model" status indicator (Degree InP1).

Therefore, hypothesis no.1 is validated, given that the concordances in the hierarchy of the values of the two indicators Degree (InPS)2, respectively Degree (InP)1.

**Hypothesis 2**

Based on "Eigenvector-Authority In" (influence) definition of the status, its values can be computed through specific centrality measurements of the "Eigenvector-Authority In" indicator within the ONA methodology. Specifically, given that "Eigenvector" is a ONA` method for counting the direct connections that each member has with others in the group who in turn have the most numerous connections (Hansen & Shneiderman & Smith, 2010), it was applied to calculate the "Eigenvector-Authority In" status value (influence) for each employee.

Considering the literature that describes employees holding significant positions on the "role model" status scale as "influencers" within the group (Demir & Ozkan, 2015; R.S. Burt, 2007), the following hypothesis was formulated:

**Hypothesis no. 2** - Employees with the highest values of the "role model" status indicator (independent variable) also benefit from the highest values of the influence power indicator (dependent variable).

The value of the "role model" status indicator (Degree InP) as employee' preferential prestige is determined in testing hypotheses 1.

The value of the influence power indicator (Eigenvector-Authority In) of group members is determined by identifying, centralizing and processing the responses regarding the preferred dialogue partners (connections) of each member for requesting advice in order to purchase a mobile phone, in order to rank individuals based on their direct connections with those who in turn have a large number of connections with group members.

After centralizing the responses and processing them using centrality measures, the following values of the employees' influence power indicator (Eigenvector-Authority In) within the social reintegration sector are obtained:

a) Dumitru Mihai ranks first with 0.695 points of the Eigenvector-Authority (In) indicator, also obtaining 18 points of the Degree (InP)1 indicator;

b) Muresan Daniel ranks second with 0,5995 points of the Eigenvector-Authority (In) indicator, also obtaining 14 points of the Degree (InP)1 indicator;

c) Croitoru Albert ranks third with 0.3529 points of the Eigenvector-Authority (In) indicator, also obtaining 11 points of the Degree (InP)1 indicator;

d) Carari Costel ranks fourth with 0.141 points of the Eigenvector-Authority (In) indicator, also obtaining 4 points of the Degree (InP)1 indicator.

Regarding to the hypothesis no.2 statement, it is observing that, in the same order, the employees who obtained the highest score of the "role model" status indicator (Degree InP1) also obtained in the same order the highest values of the employees' influence power indicator (Eigenvector-Authority In).

Therefore, hypothesis no.2 is validated, given that the concordances in the hierarchy of the values of the two indicators Degree (InP)1, respectively (Eigenvector-Authority In).

## CONCLUSIONS AND DISCUSSIONS

### For hypothesis no. 1 (view Chart no.2, 3, 4, 5)

By comparing the values of the "subjective reflected perception of employees' regarding colleagues' knowledge about mobile phones" indicator with the values of the "role model" indicator, reflected by each member's relational choices, hypothesis no. 1 is validated in both ways of determining the values of the two indices.

Therefore, it is concluded that among individuals with the highest values of the two indices within the social reintegration sector` members of the detention unit where the study was conducted, there is a considerable consonance between employees' subjective perception of their colleagues' knowledge of mobile phones and their relational choices for seeking advice from colleagues regarding the purchase of a mobile phone.

It suggests that those individuals who have the highest values for both indices have a good reputation for the studied topic, possessing knowledge and qualities that are recognized and respected by colleagues.

Qualitatively, in the case of both measurements of the "role model" status indicator (Degree In1 and Degree InP1), there is a decrease in the scores obtained by the top two ranked individuals, compared to the scores obtained for the "subjective reflected perception of employees' regarding colleagues' knowledge about mobile phones" indicator (Degree InPS1 and Degree InPS2). This suggests slight avoidance in choosing these two individuals for seeking advice, although they are considered by the group to be the most knowledgeable individuals in the collective regarding mobile phones. However, the differences are not significant enough to change the hierarchy of maximum values of relational preferences on the chosen topic.

Furthermore, in both measurements, among the best-ranked individuals, Croitoru Albert is the only one who stands out by obtaining a favorable difference in scores, with colleagues preferring to seek his advice despite the perception that other members may be better informed about mobile phones. The positive difference can be explained by the results of the measurements carried out in the first article (Socio-communicational informal interactions within the social reintegration staff in a Romanian detention unit. Social hub case study (I) ), where it was calculated the values of the "social hub" status indicator, Croitoru Albert obtaining the highest popularity score, which can be interpreted as a suggestion for validating these measurements. In other words, the social recognition provided by colleagues for possible prosocial attitudes in their interaction with them may be a possible explanation for this positive difference.

**For hypothesis no. 2 (view Chart no.1)**

By comparing the values of the "role model"2 indicator (Degree InP1) with those of the "power of influence" (Eigenvector-Authority In) indicator, reflected the preferential relational choices of group members, it is observed the concordance of scores obtained by individuals with the highest values of both indices, thus validating hypothesis no. 2.

Despite the methodological differences in calculating the two indices, which reflect the prestige and the power of influence, the hierarchy of values of the best ranked individuals remains the same, indicating that they have a good reputation for the studied topic, possessing knowledge and qualities that are recognized and respected by colleagues.

<b>CHART 1</b>				
<b>Nr. crt.</b>	<b>ID employee</b>	<b>Eigenvector-Authority (In)</b>	<b>Degree (InP)</b>	<b>Eigenvector-Authority (In) position related to Degree (InP)</b>
1.	Dumitru Mihai	0,695	18	– (stay)
2.	Muresan Daniel	0,5995	14	– (stay)
3.	Croitoru Albert	0,3529	11	– (stay)
4.	Carari Costel	0,141	4	– (stay)
5.	Galatean Madalin	0,0897	2	– (stay)
6.	Moldo Alina	0,045	2	↓ down 1 level
	Popa Mihai	0,045	1	– (stay)
7.	Bostan Irina	0,0229	2	↓ down 2 levels
	Neam Madalin	0,0229	1	↓ down 1 level
8.	Bostinaru Decebal	0	2	↓ down 3 levels
	Maurer Felicia	0	0	– (stay)
	Cretescu Daiana	0	0	– (stay)
	Sonia Maria	0	0	– (stay)
	Gaspar Viorel	0	0	– (stay)
	Dobre Raluca	0	0	– (stay)
	Pop Raluca	0	0	– (stay)
	Dima Constantin	0	0	– (stay)
	Gheorghiu Mihai	0	0	– (stay)
	Biris Roxana	0	0	– (stay)
Munte Irina	0	0	– (stay)	

**Final conclusions**

Sociometry and organizational network analysis (ONA) are valuable tools for leadership and management in a dynamic social context, such as the institutionalized one. These research methods enable participative leadership and management to identify informal networks and individuals with high social capital, often referred to as "influencers" or informal leaders. These individuals generate and facilitate knowledge transfer and information flow, leading to positive implications for organizational performance.

Therefore, the current article identifies the informal networks in the social reintegration sector of a detention unit in Romania regarding leisure activities, which indicate social support and trust networks, and also it identifies employees with the most significant social capital, calculated under the criteria of:

a. Trust, by highlighting the values of the "role model" status indicator/employees' prestige and the employees' "subjective reflected perception" of the usefulness of their peers' knowledge about mobile phones.

b. Influence, by highlighting the values of the "Eigenvector-Authority In" status indicator/employees' influence.

Following the identification and analysis of social support and trust networks, the following conclusions are relevant for the leadership interests regarding the informal leaders of the employees' group in the social reintegration sector of the detention unit where the study was conducted, specifically individuals who occupy the highest positions of the "role model" scale status:

1. The first four people recognized within the work collective as "role models" regarding the knowledge about mobile phones are at the same time considered to have the most useful information on this topic, being preferred in the same order by colleagues for requesting advice on the purchase of a mobile phone. This consonance may indicate an increased degree of cohesion in the group members' connections regarding the chosen topic.



2. The first four people recognized within the collective work as "role models" regarding the knowledge about mobile phones are also the most influential on this topic.

As a final applied conclusion of the two studies, Croitoru Albert, by occupying the position of the main informal leader resulting from several measurements, plays an extremely important role in maintaining the density of informal connections within the employees' network. Accumulating the highest social capital in the network is a clue that his valuable social qualities are appreciated by other members of the network, which gives him the highest reputation within the group.

Given the increased social capital acquired within the group, both Croitoru Albert and the other identified informal leaders (e.g. Dumitru Mihai, Moldo Alina, Pop Raluca, Galatean Madalin) can be involved in facilitating knowledge transfer and information flow, with possible impacts on: facilitating the adoption of new management policies, increasing cohesion among the employees' group including in the hybrid work format, integrating individuals with weak connections with the rest of the group, increasing employees participation in achieving organizational objectives, providing the necessary operational and emotional support to employees in order to optimally manage critical/crisis situations and reduce uncertainty, optimizing and facilitating the learning of operational work procedures, evaluating the meaning given by employees to the work performed in the organization, optimizing the leadership style and the human resources management policy, as well as on other desirable policies of the organization.

The study's novelty lies in the application of sociometry and ONA as research techniques to investigate informal networks and informal leaders within an employees' group in a Romanian prison unit, with the objective of utilizing the research findings as decision-making guidance for management policies

#### **Limits of the study**

Given that the research design is non-experimental, determined by the impossibility of manipulating variables and controlling participant subjects, the study does not aim to identify and analyze the causal relationship between variables, but only their association.

The study does not aim to distinguish between the two qualities, formal and informal leaders, nor to identify individuals in leadership positions. However, the data collection method applied highlights those individuals recognized as informal leaders, namely social hubs, within the target group. Thus, in contrast with the highly hierarchical profile of the institution, the strategy for adopting new management policies can be created by promoting them through individuals who do not hold leadership positions but have increased social capital within the employee network (informal leaders). It should be noted that the specialized literature includes numerous such studies, without highlighting those applied in the penitentiary environment.

#### **New research perspectives on the study**

Given that sociometry and ONA offer a wide range of research possibilities, new perspectives for advancing the study of socio-communicational phenomena within groups in Romanian prison units could include: comparing the social capital obtained by informal leaders with that of formal leaders; identifying individuals who hold important positions on the social hub and role model scales in relation to a single performance criterion; identifying the lack of collaboration among group members; identifying the information flow (communication) within the group on a particular professional interest; identifying the traits, values, and behaviors appreciated in informal leaders by group members. Subsequently, the following beneficial effects can be achieved at the organizational level: strengthening the organizational culture; improving the promotion of change initiatives (such as adoption of new policies); improving communication strategies; creating and implementing authentic employee integration and cohesion-building policies; creating and implementing a bottom-up participatory management strategy; implementing employee motivation strategies.

## **REFERENCES**

- Barabási, A. L. (2018). *The formula: The universal laws of success*. Hachette UK.
- Boud, D., & Middleton, H. (2003). Learning from others at work: communities of practice and informal learning. *Journal of workplace learning*, 15(5), 194-202.
- Burt, R. S. (2007). *Brokerage and closure: An introduction to social capital*. OUP Oxford.
- Charoensukmongkol, P., & Phungsoonthorn, T. (2022). The interaction effect of crisis communication and social support on the emotional exhaustion of university employees during the COVID-19 crisis. *International Journal of Business Communication*, 59(2), 269-286.
- Ciupercă, E. M., & Vlăduțescu, Ș. (2014). Social capital in social networks. *Neutrosophy, Paradoxism and Communication*, 44.

- Demir, K. A., & Ozkan, B. E. (2015). Organizational change via social hubs: a computer simulation based analysis. *Procedia-Social and Behavioral Sciences*, 210, 105-113.
- Fan, Z., & Dawson, P. (2022). Gossip as evaluative sensemaking and the concealment of confidential gossip in the everyday life of organizations. *Management Learning*, 53(2), 146-166.
- Gibson, D. E. (2004). Role models in career development: New directions for theory and research. *Journal of vocational behavior*, 65(1), 134-156.
- Gibson, D. E., & Barron, L. A. (2003). Exploring the impact of role models on older employees. *Career development international*, 8(4), 198-209.
- Golbeck, J. (2015). *Introduction to social media investigation: A hands-on approach*. Syngress.
- Hâncean, M. G. (2014). *Rețelele sociale*. MintRight Inc.
- Hansen, D., Shneiderman, B., & Smith, M. A. (2010). *Analyzing social media networks with NodeXL: Insights from a connected world*. Morgan Kaufmann.
- Henry, C., Nelson, T., & Lewis, K. (Eds.). (2017). *The Routledge companion to global female entrepreneurship*. Routledge.
- Hess, A., & Hess, A. (2001). Emile Durkheim, Georg Simmel and Ferdinand Tönnies: Social Differentiation and Functionalist Sociology. *Concepts of Social Stratification: European and American Models*, 36-49.
- Hunter, K. O., & Wolf, E. M. (2016). Cracking the code of process safety culture with organizational network analysis. *Process Safety Progress*, 35(3), 276-285.
- Ianoș Stănescu, G. (2015). Portrayals of Immigrants in European Media. *Discourse as a Form of Multiculturalism in Literature and Communication*, 114-123.
- Khosravi, B., Tajvar, M., Jaefaripooyan, E., MohammadiKangarani, H., & Arab, M. (2022). Hospital managers' communication networks: A mixed-method study. *Chinese Public Administration Review*, 13(1-2), 67-74.
- Krackhardt, D., & Hanson, J. R. (1993). *Informal Networks: The Com*.
- Liu, J., & Moskvina, A. (2015, August). Hierarchies, ties and power in organisational networks: model and analysis. In *Proceedings of the 2015 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining 2015* (pp. 202-209).
- Murray, M. (2002). *Beyond the myths and magic of mentoring: How to facilitate an effective mentoring process*. John Wiley & Sons.
- Nordlund, C., & Fierascu, S. (2018). Introduction to the special issue on social and political networks. *Romanian Journal of Political Science*, 18(1), 4-7.
- Smarandache, F., & Vladutescu, S. (2014). *Towards a practical communication intervention*. Infinite Study.
- Smarandache, F., Vlăduțescu, S. (2014). *Neutrosophic Emergences and Incidences in Communication and Information*. Saarbrücken: LAP.

## APPENDIX





