Leadership Technology in the Context of Society Informatization

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Abstract: The purpose of this article is improving leadership technology in the context of society informatization. Theoretical and methodological basis of the study includes an abstract-logical method, methods of induction, deduction, analysis, synthesis, and systematization, used to substantiate the socio-economic aspects of leadership, as well as graphics to study the leadership development level and trends in the context of society informatization. Studies indicate that there are significant differences in the satisfaction level between staff members and managing business leaders holding executive position, i.e., in cases, where the roles of business leader and executive were performed by a single person, as well as staff members with subordinating business leaders, i.e., in cases, where the roles of business leader and executive were performed by different persons. While for staff member teams with business leaders holding executive positions, the average satisfaction score is 3.929, i.e., is very close to satisfactory, for teams with subordinating business leaders, the average satisfaction score is equal to 2.807, i.e., remains within the nonsatisfactory gradation.

Additional facts in favor of the proposed hypothesis consist in a fact that in the teams, where executives lead in the business sector not only on the aspects of business leadership in general, having the highest total score, but also for each of aspects individually, the satisfaction indicators are the highest in the sample, equal to four or more points. At the same time, the least satisfaction was noted in the teams, where executives had a relatively low business status. The study has revealed that leadership in the future can be a stimulus for communication, activity, and formation of certain interpersonal relations in the context of society informatization.

Index Terms: leadership, phenomenon, management, personality, society, group, executive, organization, needs.

I. INTRODUCTION

Currently, leadership is considered in terms of the socio-psychological theory of small groups and contact teams and is analyzed as an element of social processes organization and management based on the principle of subordination and coordination dependence. The emergence and development of leadership are determined by the objective needs of the organization of social production and social life in general, which are reflected in the goals, interests, and objectives of various social groups and communities. Leadership is one of the means by which a social group is managed. It is essentially a process of managing small social groups, as opposed to a specially organized, formal leadership encompassing all its diversity in contemporary society. Therefore, the problem of leadership acquires particular importance in the activities of specialists involved in the social sphere.

In addition, the manifestation of leadership is an act of interaction between individuals: not only the leader affects the follower, but also the follower affects the leader. The behavior of the leaders is largely due to the attitudes and value orientations of the group members. It is also necessary to consider the difference between a leader, as a person having significant influence, and an official executive, whose influence can sometimes be much less. After all, not all formal leaders are in fact leaders.

II. LITERATURE REVIEW

The studies of the issues associated with contemporary approaches to leadership as the phenomenon of managing a group are reflected in the works of T.Yu. Bazarov, [1], Zh.V. Puzanova [2], A.O. Blokhina [3], O.V. Markova [4], and other researchers. The literature review on the research topic allows identifying contradictions, proving the need to summarize the current approaches to leadership as a group management phenomenon.

Scientists [5, 6] identified three levels at which leadership issues are being developed, namely, methodological, conceptual, and operational ones. Theoretical and methodological level involves, first of all, the observance of the basic logical principles when approaching the problem. This approach is based on the principles of unity of consciousness and activity, determinism, and mediation. The main system-forming feature of leadership, in this case, is the category of interaction, involving a mutual active attitude and behavior of participants.

Therefore, leadership is considered as a secondary, derivative phenomenon, as a result of the group members’ interaction, and represents a structural and functional characterization of this group. The conceptual approach to the problem of leadership is represented by two main aspects. The first of them considers mainly dynamic and functional characteristics of leadership within the group organization. The second aspect deals with mainly structural, static characteristics of leadership in a group organization.
III. METHODS

A. General description.
Theoretical and methodological basis of the study includes an abstract-logical method, methods of induction, deduction, analysis, synthesis, and systematization, used to substantiate the socio-economic aspects of leadership. Graphic methods are employed to study the leadership development level and trends, while the rating technique is used to determine the rating of leadership qualities. The information base of the article includes the statistical data of state bodies, legislative and regulatory documents regulating the socio-economic aspects of leadership as a phenomenon of group management [7, 8, 9].

B. Algorithm.

In the course of the study it is planned to improve approaches to assessing leadership qualities, to develop measures aimed at coordinating activities among the main participants of communication interaction in the group, to substantiate the concept on the formation of an integration system that ensures the development of leadership qualities in the context of society informatization.

C. Flow chart.
The study is planned to be carried out according to the following scheme, in which leadership is considered as a process that arises from a set of environmental factors - cultural and group ones (Fig. 1).

IV. RESULTS

In terms of the information society, three important variables in the study of leadership should be taken into account: 1) the objectives of the group; 2) the personality of the leader; 3) factors that determine changes in group behavior. In this situation, leadership can be seen as a relationship conditioned by the influence among group members who solve a single problem. These relationships include, above all, the relationships between the leader and the followers. At that, if the leader’s contribution to the solution of the problem is significant, then his influence on others increases, as well as his status, assessment, and recognition. However, the effectiveness of group activity depends on three factors: 1) the task structuredness (external objective factor), 2) the relationships among group members (internal objective factor), and 3) the strength of the leader's position (subjective factor). The structuredness of the problem can be described in terms of clarity and apprehensibility for group members. The second factor reflects the degree of acceptance or rejection by group members of their leader. Therefore, a task-oriented leader is more effective when the situation is either very favorable or extremely unfavorable for him.

The operational level of
analysis studies the types of leadership in various kinds of group activities, as well as the effectiveness of a particular style, depending on the focus of the group on achieving success in the activity, explores leadership structure and mechanisms, peculiarities of leader’s behavior and social orientation, leader’s personality, and leadership functions in group activities.

In the course of the study, a method of training new leaders was proposed for domestic enterprises by consolidating specific methods of developing appropriate skills. This technique develops the competence necessary to build effective teams using the following criteria for determining the appropriate competence.

According to this methodology, competence is considered to be developed if the leader:
- groups people in the teams, if necessary;
- shares successes and victories with the team;
- encourages open dialogue;
- creates strong and positive morale in his team;
- gives people the opportunity to complete the work and be responsible for it;
- determines success in terms of benefits for the whole team;
- creates a sense of belonging to the team;

Competence is not developed if the leader:
- does not create a team and does not work with people as a solid team;
- is not engaged in the development of collective thinking and common understanding of the problem;
- manages people as individual employees;
- rewards and encourages each individual employee, rather than the team;
- holds public meetings not regularly;
- does not create synergy in the team; everyone is working on their own project;
- does not provide guidance to build team spirit;
- has no skills or desire to create a team;
- can be significantly focused on activist management and not trust the team in collective action.

However, undoubtedly, there are many groups whose normal functioning and effective performance are closely related to the extent to which their executives are perceived by subordinates as true leaders.

In particular, according to the research results with regard to the staff of Gazprom PJSC, as a suitable model to test the general hypothesis about the dependence of satisfaction of subordinates by group membership on the degree of acceptance of the executive as a leader, the following private hypotheses have been formulated: a) regarding satisfaction with the business activity of the team: in groups where the executive is both a leader in the professional activity and a business leader, the satisfaction with the professional atmosphere will be higher than in groups, in which the business leader is one of the subordinates; b) regarding satisfaction with the emotional activity of the team: in groups where the executive is a leader in the interpersonal communication, i.e. an emotional leader, satisfaction with the nature of the relations that have developed among group members will be higher than that in groups, in which the emotional leader is one of the subordinates; c) regarding satisfaction with group membership in general: stronger desire of team members to remain in the team will correspond to higher level of their satisfaction with the professional atmosphere and the nature of the relations among the group members.

Let now consider the results of empirical testing of the above hypotheses. The total sample amounted to 128 respondents, who were Gazprom PJSC employees. The selection of respondents was based on two criteria: first, the presence in the team of a single production program; second, a certain duration of the team existence.

Respondents have been asked the following questions:
1. Who of the team members is the most productive in generating all sorts of original ideas related to the range of problems being developed by the team staff members?
2. Who of the team members makes the greatest contribution to the development of friendly relations in the team?
3. Who of the team members has the greatest erudition regarding the range of problems developed by the team staff members?
4. Who of the team members is the most pleasant to you in human terms?
5. Who of the team members makes the most constructive contribution to the critical understanding of the problems developed by the team members?
6. Who of the team members is more than others able to help the colleagues in solving some personal problems?
7. Who of the team members makes the greatest contribution to the organization of the teamwork?
8. With whom of the staff members do you feel most at ease?
9. Who of the team members is the most authoritative for you?
10. With whom of the team members do you enjoy communicating most at non-office hours? (In the answers to questions 1-10 respondents should have named five team members, placing their names based on the content of the question, or according to the degree of manifestation of the corresponding property, or according to their contribution to the life-sustaining activity of the team, or depending on the personal preference of the respondent; the first choice was evaluated as five points, while the fifth choice - as one point).
11. Are you satisfied with the team environment?
12. Are you satisfied with the relationships that have developed in the team among employees? (Answers to questions 11-12 were distributed on a 5-point scale from "absolutely not satisfied" (one point) to "fully satisfied" – (5 points). The respondents were asked to choose just one answer).
13. If you had the opportunity to move to another company where
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14. you would have more financially promising work, what would be your decision? [Five possible answers were offered from "Would have moved with no doubt" (1 point) to "Would never have moved" (5 points). Just one answer was allowed].

The answers to all questions were strictly anonymous. A total number of points received by each team member, including the executive, from their colleagues when answering questions No. 1, 3, 5, 7, and 9 allowed determining the rank structure of business leadership in the team. The team member with the highest score received on these questions was considered a business leader and was assigned the first rank. Similarly, according to the respondents' answers to questions No. 2, 4, 6, 8, and 10, the rank structure of emotional leadership in the team was determined. Based on the respondents' answers to the questions No. 11, 12, and 13, their satisfaction with various aspects of the team life was judged. For each of these points, the average satisfaction score was calculated.

First, let consider the data concerning verification of the first of hypotheses regarding one possible reason for satisfaction with the business atmosphere in the team. Average indicators of satisfaction with the business atmosphere in each of the teams are presented in Table 1.

### Table 1. Average indicators (in points) of satisfaction with the business atmosphere at Gazprom PJSC

<table>
<thead>
<tr>
<th>Teams</th>
<th>Average indicators of satisfaction</th>
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<tbody>
<tr>
<td>With leader holding executive position</td>
<td>3.75; 3.27; 3.875; 4.417; 4.36</td>
</tr>
<tr>
<td>With leader being subordinate</td>
<td>2.889; 2.778; 2.889; 2.727; 2.75</td>
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Data in Table 1 indicate significant differences in satisfaction rates between teams with business leaders being executives, (i.e. in cases, where the role of business leader and executive are performed by the same person), and the teams with business leaders being subordinates (i.e. where the roles of business leader and executive are performed by different persons).

At the same time, for teams with business leaders holding an executive position, the average score of satisfaction is 3.929, i.e. is very close to gradation "satisfied", while for teams with business leaders being subordinates, the average satisfaction level is equal to 2.807, i.e. remains within the gradation of "not satisfied". Statistical analysis by Student's t-test revealed a very significant difference between the mean values: at $t = 10$, $t=8.14$ ($p<0.001$).

Thus, our first hypothesis receives considerable empirical support. Additional facts in favor of the proposed hypothesis consist in a fact that in the teams, where executives lead in the business sector not only in general on aspects of business leadership, having the highest total score, but also for each of them individually, the satisfaction indicators are the highest in the sample, equal to four or more points. At the same time, the least satisfaction is noted in the teams, where executives have a relatively low business status.

The reliability of the presented approaches is confirmed by the fact that leadership can be defined as a natural socially necessary process of group organization and self-organization aimed at achieving a common goal, differentiation, and integration of group phenomena based on the principle of coordination and subordination. At the same time, leadership is a process that synthesizes group phenomena. At the same time, leadership is the result of verbal and nonverbal interaction of all participants involved in group activities, and in this sense, it can act as a kind of general quality, a property of a given group [10, 11, 12]. These leadership characteristics reflect a complex set of different variables: 1) macro environment, which is a socio-economic organization, politics, culture, and ideology; and 2) micro environment, i.e. social, socio-psychological phenomena of a small group (typical and atypical social situations, the content of group activities, goals, objectives, and socio-psychological climate); and 3) individual psychological traits of the leader and followers (their intelligence, especially the emotional-volitional sphere, and organizational skills).

### V. CONCLUSION

Summing up, it can be noted that leadership in the information society is a socially demanded process of group organization and self-organization, as well as self-administration. Leadership is implemented in group activities. This is a process, which spontaneously arises on the basis of interpersonal relations among members of a small group, and is aimed at achieving a common goal.

The basis and source of the leadership phenomenon is the communication process of people, which reflects their social needs, in particular, in the organization of their behavior and their activities. At the same time, arising in the consequence of communication, leadership can be in the future a stimulus for communication, activity, and formation of certain interpersonal relationships in the group.

Leadership as a process arises and exists in accordance with the interests and needs of the group and its participants, representing the determinants of the microenvironment. At the same time, leadership is the result of verbal and nonverbal interaction of all participants involved in group activities, and in this sense, it can act as a kind of general quality characteristic of a certain group.

### REFERENCES


