

## Decision making and implication and their relationship in public policy management and energy institutional management policies

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### Abstract

The article describes results of an experimental study of efficiency criteria for managerial decision-making styles. It defines the terms “managerial decision-making style” and “efficiency” as applied to the sphere of management. As it has been required by the theoretical analysis, three groups of efficiency criteria have been outlined and grouped into three categories of efficiency criteria of managerial decision-making styles: efficiency criteria for production, socio-organizational criteria, psychological efficiency criteria for a manager’s personality; also, a theoretical model of a psychological profile for an efficient managerial decision-making style has been developed. The analysis of the results of diagnostics and evaluation of middle-ranking managers’ performance within the survey sample has proved that the newly developed evaluation criteria for middle-ranking managers’ performance, as well as the selected diagnostics methods, are adequate, and discovered that managerial decision-making styles have different leading motives, risk readiness, and job satisfaction.

**Keywords:** managerial decision-making styles, efficiency criteria, organization’s work, managers, experimental research, job holders, management style

### 1. PROBLEM STATEMENT

As of today, developing an efficient decision-making style is a burning issue for theoretical and practical labor and organizational psychology. It is often difficult to define the terms “management style” and “managerial decision-making style.” Efficiency criteria for leadership are not certain either, which makes it hard to identify the semantics of the term “efficiency” in relation to managerial work. The terms “managerial decision-making style” and “management style” are interchangeable and are often used as synonyms in scientific and psychological literature. Most Russian and foreign authors (Blake R., Mouton J., Fidler F., Rusalina A.A., Kossov B.B., Zhuravlyov A.L., Moll E.G., Logolevich N.I., Tolochek V.A., etc.) define management style as a ratio within a bipolar continuum between a manager’s concern for production output and relationships between staff members. The completed analysis of existing approaches to studying management styles, the authors suggest, should be followed by evaluation of

middle-ranking managers’ behavior according to the given criteria based on the Blake-Mouton Managerial Grid [1].

According to Blake R. and Mouton J., a management style is identified by a ratio between a manager’s concern for production (X-axis) and the team’s needs (Y-axis), and it becomes visible in leadership tactics. This has helped identify five main styles that have respective coordinates and two additional ones, yet without a strict focus on the managerial grid. Seven management styles have embraced managers’ behavior and his/her relationships with colleagues and subordinate staff with the implementation of five basic elements of managerial work: collection of data, development and taking of a decision, asserting a personal opinion, critical analysis of an accepted decision and its results, and conflict resolution.

The problem of meeting the goals should be addressed as part of research of managerial efficiency. In psychological literature, such terms as result, success, productivity, performance, etc. go hand in hand with the term efficiency. Not infrequently, the concepts intermingle or are used as synonyms. Nature has not exactly rendered two humans the

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same or very identical. In height, weight, color, appearance, and reaction pace, character, personality, behavior, and the like, people vary from each other. It clear that persons vary from each other. It is less obvious how and why they vary and what affect the disparity between them has on their actions, learning capacity to develop different abilities and career choice in life. In general, this topic of personality variations is

discussed through individual differences in psychology or comparative psychology. In some ways, psychology tests humans at three stages, for any guy (a) like all other men, (b) like another man, (c) like no other individual [21]. No two persons are identical, but no two individuals are identical. Thus, we seek to understand how individuals are psychologically similar in the analysis of individual differences, and particularly what psychological characteristics vary between individuals. In such concrete variables as anatomy, age, race, body-building, physiological functions and psychological make-up, intrinsic variations between individuals are commonly seen. Much of the superficial disparities are induced by environmental conditions which occur in terms of social class, economic status, living conditions, schooling, expertise, accomplishment, etc. Understanding personality variations in the school system allows both students and instructors to develop curricula, prepare course materials and preparation programs [32]. In physical fitness and activity, the case is no different from that in fitness. Individual variations are an essential teaching concept in fitness and sport, which underlines the idea that maximum results are gained by implementing training plans to fulfil the unique requirements of individual athletes. The idea extends to fitness equally well. Ideally, an individualized fitness programmer could be active with each fitness. This will mean that the workouts are personalized to suit the individual& desires, which will minimize the likelihood of injury from overtraining which overuse. We may tell, eventually, that any athlete is special to himself. Besides physiological variations such as height, weight, etc., psychological differences are often related [33]. Some athletes may be outgoing and extroverted, whereas others may be quiet, introverted and removed, and their styles of vision may also vary. Some athletes are born psychologically healthy, and others have poor attitudes. Weak-

disposed athletes refuse to achieve their goal. Thus, human variations in athletic success are an inherent occurrence, and due to the essence of each individual participant, the trainer or instructor needs to change his method.

This study sticks to a viewpoint described in S.A. Druzhilov's works, according to which a professional's efficiency is part of an integral characteristic that is professionalism. S.A. Druzhilov defines professionalism as people's specific ability to carry out complex work in a consistent, effective and reliable way, under difficult conditions as well [3]. As follows from the definition, efficiency is one of man's three traits (characteristics) along with trustworthiness and consistency, which make up an integrated evaluation criterion for a work subject as a professional.

Analysis of sources shows that most authors group managers' efficiency criteria into external (objective) and internal (subjective), according to types of indicators. For example, objective criteria include ones, which can be expressed quantitatively or qualitatively - output volume, product quality, meeting deadlines and plans, solving tasks, etc. Subjective criteria include psychological characteristics, states, formations, and subjects' individual personality traits [4; 7].

All chosen efficiency criteria for managerial decision-making styles should evaluate a manager's work in different aspects: the team's performance, production process organization, and the manager's individual personality traits. This has helped specify and outline three groups of criteria: production efficiency, social and organizational criteria, and efficiency of a manager's personality.

Production efficiency. A middle-ranking manager's work should be aimed at fulfillment of tasks set by the senior staff as planned for a certain period. In most cases, it is one calendar year, which includes intermediate control points - months and quarters. The key goal of an annual plan is to provide quantitative output indicators, which a middle-ranking manager is bound to achieve. Equality between the department's actual and planned output indicators reflects the manager's efficiency in running production processes. A general qualitative performance assessment approach can be expressed by the following formula (Formula 1):

$$\text{Efficiency (planned)} = \frac{\text{Actual output}}{\text{Planned output}} \times 100\% \quad (1)$$

The next criterion in the group is meeting production schedules. Partially, it reflects the previous one (Formula 1), although it provides a more detailed picture of a manager's work. While the first criterion focuses on results achieved over the entire accounting period, the meet-the-schedule criterion

$$\text{Efficiency (period)} = \frac{\text{Actual amount of work completed by check date}}{\text{Planned amount of work to be completed by check date}} \times 100\% \quad (2)$$

Social and organizational criteria. This group of criteria evaluates a manager's work based on employee turnover within a particular department, discipline at work, and the occurrence of work-related conflicts. The final estimate reflects the manager's ability to control the subordinate staff, manage and influence relationships within the team.

The first criterion within the group – employee turnover – focuses on the number of discharges per year. It reflects the proportion of discharged employees per year to the number of those stated in the staff list. The criterion uses a point-based efficiency evaluation approach: departments with a turnover of less than 10% score 2 points; a turnover of 11% to 15% gives 1 point; a turnover exceeding 15% results in 0 points. A low employee turnover signifies favorable labor conditions with good relationships within the team, appropriate staff recruitment tactics, etc. A high employee turnover signifies unfavorable processes within the team, poor labor conditions and increased expenses resulting from having to recruit new employees, ensure their psychological adaptation, which, in turn, leads to less effective spending.

Discipline at work is assessed by staff's compliance with work arrangements within a department. Work arrangements are established with reference to the specifics of the production process, and they should provide optimal conditions for fulfillment of production tasks. Compliance with work arrangements is measured by the number of late arrivals and absences without leave. A manager should be able to maintain a high level of discipline, control, and stimulate employees to comply with work arrangements. The criterion uses a point-based evaluation pattern with 1 point awarded when there are no repeated late arrivals; no points are awarded when there are repeated cases of violation of labor discipline.

Psychological managerial efficiency criteria. This group includes criteria, which evaluate a manager's psychological and personality specifics and traits and his/her professionally important qualities showing up in the process of managerial work.

shows the consistency of the effort exerted to achieve the planned result at intermediate stages. An ability to keep pace throughout the department's life characterizes the manager's work as efficient. It is calculated using the following formula (Formula 2):

## 2. ORGANIZATION OF RESEARCH

For an experimental study of the influence of a managerial decision-making style on a company's efficiency, the Soyuzsnab group of companies (GK Soyuzsnab) has been used as an example. GK Soyuzsnab is a leading Russian food supplement and ingredient production company holding an up to 25% share in the respective segment of the Russian market. The study has encompassed the following categories of GK Soyuzsnab's managers and persons involved in managerial decision-making: middle-ranking managers (heads of affiliate groups and departments), their direct subordinates, who are involved in development and implementation of managerial decisions. The research has embraced employees of 17 affiliate groups and departments of GK Soyuzsnab across the RF.

As of 2019, GK Soyuzsnab's personnel totaled 1200 employees. Enrolled in the survey were 40 middle-ranking managers and 85 their direct subordinates, totaling 75% of the managerial staff and 10% of GK Soyuzsnab's general personnel. The concept of the experimental research implies a conduct of ascertaining and educational experiments.

Managerial decision-making has been diagnosed according to the Blake-Mouton model comprising 18 groups of statements [6]. The most efficient managers are those scoring 9.9 (task- and staff-oriented) and 9.1 (task-oriented). These managers demonstrate hard work, high performance, leadership, striving for successful fulfillment of tasks and the company's goals and objectives.

The second criterion – affiliation motives, which include a motive to join and fear of rejection. Affiliation implies a person's need to establish, preserve and cement positive relationships with others. An individual with this need not just wants to stay in company all the time and experiences contentment from emotionally positive communication; he/she regards relationships as a main point of life. Diagnostics of affiliation motivation has been carried out through an affiliation motivation questionnaire (AMQ), developed by Magomed-

Edimov M. Sh. And modified by Mekhrabian A. The AMQ is intended for diagnosing two generalized steady personal motives, which are part of the affiliation motivation structure – the striving to be with people (acceptance) and fear of rejection. These two motives can combine and be interpreted in the following ways:

- High striving for acceptance combined with high fear of rejection. This combination results in a serious inner conflict between the striving to be with people and the striving to avoid them, and it breaks out every time an individual has to meet new people.
- High striving for acceptance combined with low fear of rejection. Such individuals seek contact and communication with people, which gives him positive emotions.
- High fear of rejection combined with low striving for acceptance. Such individuals avoid new contacts and prefer to stay alone.
- Both motives are low. This combination allows a person to stay in company and communicate without experiencing any positive or negative emotions and feel well with or without people around him/her.

The third criterion is a manager's striving for success. In this case, the "striving for success" is the manager's focus on developing and making the most optimal managerial decisions, which can help achieve a set goal and translate it into the ultimate result. The method of diagnosing a person on the motivation to attaining success and avoiding failures, developed by T. Elers, was used as a diagnostic tool [5, P. 626]. The motivation to attaining success shows up in the process of making managerial decisions and is manifested in the manager's hard work, confidence, mental stability and readiness for risk [2, P. 17]. Avoidance of failures implies the manager's focus on his/her personality, fear of career disruption due to a failure or incorrect decision, disapproval from senior staff and/or subordinates. This motivation is expressed through a manager's striving to evade responsibility, excessive cautiousness, lack of leadership qualities, and seeking psychological comfort.

Risk readiness has been diagnosed with the help of the Schubert Risk Readiness Diagnostics method [5, P. 632]. The obtained results are analyzed along with those obtained during the diagnostics of motivation to attaining success and avoidance of failures. Numerous past years' studies have provided solid

proof that people with medium and high motivation to attaining success demonstrate a medium or high risk readiness. People with high motivation to avoiding failures demonstrate low risk readiness. The diagnostics procedure lasts 10 to 15 minutes at most and does not interfere with a tested person's work schedule.

The most optimal combination of psychological traits revealed through these methods should be high motivation for success with medium or high readiness to face a relevant risk. A manager, who has these qualities, is go-getting, determined to fulfill all tasks and production goals, and has prospects for career development. It is noteworthy that middle-ranking managers with a moderate motivation to avoiding failures and low risk readiness can be responsible and diligent workers who live up to their current position within the company's hierarchy.

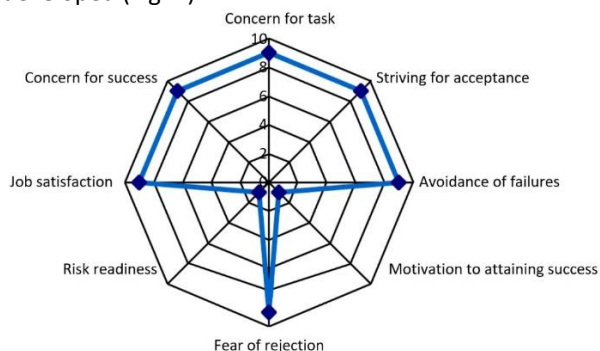
The next possible criterion within the psychological category is job satisfaction. It can be both a criterion and factor of a manager's efficiency based on the principle of positive feedback. A highly satisfied manager retains interest in fulfilling his/her professional duties, sets new goals and objectives, and positively evaluates his /her role in the team. On the other hand, the attained high productive performance, successful task fulfilment, a favorable social and psychological labor environment, produce a motivating effect and boost the manager's efficiency.

The diagnostics of job satisfaction was carried out with the help of the Integral Job Satisfaction method. The technique helps evaluate it on nine scales (interest in working, satisfaction with results, relationships with associates and the managerial staff, professional aspiration, etc.) [6]. A job satisfaction level above 56% revealed with the use of this method is a good indicator for a middle-ranking manager.

Supposedly, psychological determinants of the degree of a manager's concern for production (the X axis of the Blake Mouton model) are the motivation for attaining success and avoidance of failures. Determinants of how staff-oriented he/she is (the Y axis of the Blake Mouton model) are affiliation motivations: the striving for acceptance and fear of rejection. Psychological readiness for a relevant risk and job satisfaction reflect orientation on both scales (X and Y) and explain the manager's behavior both in terms of his/her relationships with the team and in terms of production task solution.

Therefore, the selection of efficiency criteria and obtained indicators has provided a unique evaluation

toolkit for middle-ranking managers and their work. Based on the analysis, a theory-based profile of an efficient managerial decision-making style has been developed (Fig. 1).



**Fig. 1.** Theory-based psychological profile of an efficient managerial decision-making style.

An efficient managerial decision-making style, according to this theory-based profile, implies maximal task- and staff-orientation, high striving for acceptance versus low fear of rejection, high motivation to attaining success versus low avoidance of failures, high risk readiness and job satisfaction.

While preparing for an ascertaining experiment, a group of middle-ranking managers (40 subjects) was divided into a control and experimental group by way of randomization; a group of their direct subordinates (85 subjects) was divided into a control and experimental group too, based on how their managers had been grouped. The goal of that was to create a psychological effect on the subject as part of a training program aimed at developing an effective managerial decision-making style. The result will be described in further works. The control group consisted of 60 subjects, including middle-ranking managers (20 subjects) and their direct subordinates (40 subjects). The experimental group consisted of 65 subjects, including middle-ranking managers (20 subjects) and their direct subordinates (45 subjects).

Thus, all tasks of the ascertaining experiment have been fulfilled: a survey sample, control and experimental groups were formed, evaluation criteria for middle managers have been identified, and diagnostics methods have been developed.

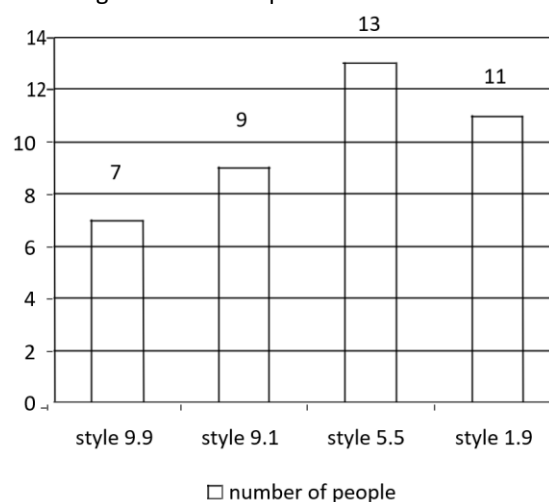
### 3. RESULTS AND THEIR ANALYSIS

During the ascertaining experiment, 40 middle-ranking managers, who were part of the survey sample, were diagnosed using the method

"Identifying Management Styles" (Blake R., Mouton J.) The following results were obtained (Fig. 2):

- 1) Style 9.9. Maximum concern for production and for people (7 subjects);
- 2) Style 9.1. Maximum concern for production and minimal concern for people (task-oriented, 9 subjects);
- 3) Style 5.5. Status quo (middle-of-the-road, 13 subjects);
- 4) Style 1.9. Social (11 subjects).

Style 1.1. None of the subjects has demonstrated this primitive management style; this may be due to the professionalism of GK Soyuzsnab's personnel department, who prevented incompetent managers from taking over leadership.



**Fig. 2.** The result of the diagnosis of middle managers by the method "Identifying Management Styles" (Blake R., Mouton J.)

Next, all middle-ranking managers within the survey sample have been diagnosed with the use of the following methods: motivation to attaining success and avoidance of failures (Elers T.), M. Sh. Magomed-Eminov's modification of A. Megrabyan's "Affiliation Motivation" method; Schubert's Risk Readiness diagnostics method; Integral Job Satisfaction (Fetiskin N.P., Kozlov V.V., Manuilov G.M.). The results have been matched to management styles diagnosed in the subjects.

The analysis of results obtained by the middle managers from the Style 9.9 subgroup has revealed that average affiliation motivation indicators imply a high striving for acceptance ( $SA > 20$ ), medium fear of rejection ( $10 \leq FR < 20$ ); medium motivation to attaining success ( $< 21$ ), and low avoidance of failures ( $< 10$ ), high risk readiness, which is below the "irrationally

high risk readiness," and medium job satisfaction (Table 1).

**Table 1:** Psychological diagnostics results for the Style 9.9 subgroup (the ascertaining experiment)

| Style      | Striving for acceptance | Fear of rejection | Motivation to success | Avoidance of failures | Risk readiness | Job satisfaction |
|------------|-------------------------|-------------------|-----------------------|-----------------------|----------------|------------------|
| Style 9.9. | 22.71                   | 10.86             | 20.29                 | 9.86                  | 19.29          | 59.14            |
| Indicator  | High                    | Medium            | Medium                | Low                   | High           | High             |

According to the results of the diagnostics of the Style 9.1 subgroup, these managers' average affiliation motivation indicators demonstrate a low striving for acceptance (SA<10), low fear of rejection

(FR<10), medium motivation to attaining success (>21), and medium avoidance of failures (>10), high risk readiness not reaching the "irrationally high risk readiness," and medium job satisfaction (Table 2).

**Table 2:** Psychological diagnostics results for the Style 9.1 subgroup (the ascertaining experiment)

| Style     | Striving for acceptance | Fear of rejection | Motivation to success | Avoidance of failures | Risk readiness | Job satisfaction |
|-----------|-------------------------|-------------------|-----------------------|-----------------------|----------------|------------------|
| 9.1.      | 9.44                    | 7                 | 18.78                 | 11.44                 | 17.22          | 47.33            |
| Indicator | Low                     | Low               | Medium                | Medium                | High           | Medium           |

According to the results of the diagnostics of the Style 5.5 subgroup, these managers' average affiliation motivation indicators demonstrate medium striving for acceptance (SA>10), medium fear of rejection (FR>10), low motivation to attaining success (<10), medium avoidance of failures (>10), low risk readiness and medium job satisfaction. Average affiliation motivation (SA and FR) without evident dominance of one motive over the other,

signifies an intrapersonal psychological conflict in a Style 5.5 manager, who cannot achieve acceptance due to fear of rejection. The prevalence of avoidance of failures over motivation to attaining success coupled with low risk readiness means that the manager is cautious in making managerial decisions, tends to use time-honored methods, avoids using innovative approaches, and feels uncomfortable when facing uncertainties (Table 3).

**Table 3:** Psychological diagnostics results for the Style 5.5 subgroup (the ascertaining experiment)

| Style     | Striving for acceptance | Fear of rejection | Motivation to success | Avoidance of failures | Risk readiness | Job satisfaction |
|-----------|-------------------------|-------------------|-----------------------|-----------------------|----------------|------------------|
| 5.5       | 14.08                   | 14.54             | 9.46                  | 17.92                 | 0.38           | 45.15            |
| Indicator | Medium                  | Medium            | Low                   | Medium                | Low            | Medium           |

According to the results of the diagnostics of the Style 1.9 subgroup, these managers' average affiliation motivation indicators demonstrate a medium striving for acceptance (SA>10), high fear of

rejection (FR>21); low motivation to success (MS<11) and medium avoidance of failures (AF>10); low risk readiness and job satisfaction (Table 4).

**Table 4:** Psychological diagnostics results for the Style 1.9 subgroup (the ascertaining experiment)

| Style     | Striving for acceptance | Fear of rejection | Motivation to success | Avoidance of failures | Risk readiness | Job satisfaction |
|-----------|-------------------------|-------------------|-----------------------|-----------------------|----------------|------------------|
| 1.9       | 11.45                   | 22.64             | 10.09                 | 17.27                 | -4.91          | 35               |
| Indicator | medium                  | high              | low                   | medium                | low            | low              |

The significant dominance of fear of rejection over striving for acceptance (more than 11 points) means that managers of this category strive to satisfy subordinates' needs to avoid conflicts, are not insistent, and do not press on subordinates to fulfill their professional duties. A Style 1.9 manager places relationships with employees above high performance. The dominance of avoidance of failures over motivation to attaining success coupled with low risk readiness means that the manager is cautious in decision-making, tends to use time-honored methods, does not use innovative approaches and will feel uncomfortable when facing uncertainties. Low job satisfaction signifies failure to achieve planned performance indicators, and good relationships with subordinates will not compensate for the low efficiency.

A mathematical analysis of these psychological diagnostics results obtained by middle-ranking managers has revealed statistically important correlations between the following management style indicators:

- 1) Style 9.9: high correlation between striving for acceptance and motivation to attaining success ( $r_s = 0.821$ ); high correlation between motivation to attaining success and risk readiness ( $r_s = 0.786$ ); High correlation between motivation to attaining success and job satisfaction ( $r_s = 0.732$ ;  $p \leq 0.05 = 0.78$ );
- 2) Style 9.1: high correlation between motivation to attaining success and risk readiness ( $r_s = 0.929$ ); reverse correlation between motivation to attaining success and job satisfaction ( $r_s = -0.871$ ;  $p \leq 0.05 = 0.68$ );
- 3) Style 5.5: high correlation between motivation to attaining success and risk readiness ( $r_s = 0.834$ ); high correlation between motivation to success and job satisfaction ( $r_s = 0.684$ ;  $p \leq 0.05 = 0.56$ );
- 4) Style 1.9: high correlation between fear of rejection and avoidance of failures ( $r_s = 0.693$ ;  $p \leq 0.05 = 0.61$ )

Therefore, the diagnostics result analysis has provided the following hypotheses about middle managers' psychological traits regarding different managerial decision-making styles:

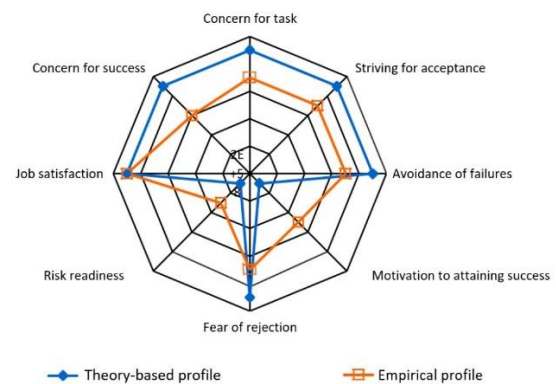
Style 9.9 is characterized by high striving for acceptance and success, high risk readiness and job satisfaction thanks to high performance and good relationships between staff members;

Style 9.1 is characterized by high motivation to attaining success, high risk readiness, low striving for acceptance and fear of rejection without visible dominance of one motive over another, and low job satisfaction; the reverse correlation between motivation to attaining success and job satisfaction may be due to high aspiration and criticism of performance;

Style 5.5 is characterized by a conflict between striving for acceptance and fear of rejection, dominance of avoidance of failures over motivation to attaining success, low risk readiness and high job satisfaction resulting from high performance;

Style 1.9 is characterized by dominance of fear of rejection over striving for acceptance, dominance of avoidance of failures over motivation to attaining success, low risk readiness; fear of rejection and avoidance of failures are leading motives.

A comparison between the theoretical and empirical profiles of managerial decision-making, the latter relying on average diagnostics results obtained by the managers of Style 9.9 within the survey sample shows that the degree of manifestation of all diagnosed psychological characteristics is close to "ideal" (Fig. 3). Managers, who fail to demonstrate maximum task- and staff-orientation, striving for acceptance, motivation to attaining success, with high motivation to avoidance of failures (medium degree of manifestation), close-to-medium job satisfaction, should undergo a training on development of efficient managerial decision-making styles.



**Figure 3.** An empirical profile of Style 9.9 managers vs. the theory-based profile of an efficient managerial decision-making style.

Analysis of documentation has helped review financial and economic reports provided by GK Soyuzsnab (2018) and calculate the efficiency of

affiliates and departments run by middle managers from the survey sample, using the developed evaluation criteria. Also, HR records and electronic access card data has been used to evaluate middle managers' efficiency according to the developed

social and organizational criteria. The obtained data has been compared to the managerial decision-making styles diagnosed in the managers and grouped as shown in Table 5.

**Table 5:** Efficiency of middle-ranking managers evaluated according to production and socio-organizational criteria (2018).

| Style     | External evaluation criteria |                      |                         |                         |
|-----------|------------------------------|----------------------|-------------------------|-------------------------|
|           | Efficiency (planned) %       | Efficiency (period)% | Staff turnover (points) | Work discipline(points) |
| Style 9.9 | 91.67                        | 86.67                | 1.67                    | 0.67                    |
| Style 9.1 | 85.5                         | 86.25                | 0.5                     | 1                       |
| Style 5.5 | 85.88                        | 80                   | 0.63                    | 0.38                    |
| Style 1.9 | 75.6                         | 70                   | 0.8                     | 0.2                     |

As follows from the table, affiliates and departments run Style 9.9 managers show the highest efficiency in terms of production plan fulfillment and meeting production deadlines. A staff turnover value of 1.67 (with a minimum turnover of 2 points) demonstrates low staff turnover within a reporting period. Work discipline (0.67) is above average with a maximum of one point.

Style 9.1 managers have demonstrated high production plan fulfillment and production deadline meeting. A staff turnover of 0.5 (with a minimum turnover of 2 points) demonstrates high turnover within a reporting period. Work discipline (1) is maximal, which is the best result compared to other managerial decision-making styles.

Style 5.5 managers have also shown high production results (86% and 80% respectively), but they are lower than those achieved by Style 9.9 managers. Employee turnover (0.63) is high, and work discipline (0.28) is low.

Style 1.9 managers have had the lowest efficiency indicators (75.6% and 70%, respectively), normal employee turnover (0,80) and the lowest work discipline (0.20).

The analysis of external criteria for the middle managers of the survey sample has shown that Style 9.9 managers have the highest efficiency, low employee turnover and fairly high work discipline. Managers of Style 1.9 have the lowest efficiency, and departments run by them have the lowest work discipline.

Style 9.1 and 5.5 managers demonstrate satisfactory efficiency and poor employee turnover indicators.

Managers of Style 9.1 have the highest work discipline, and it is poor in departments run by Style 5.5 managers.

The control and experimental groups have included middle managers with the following characteristics revealed during the first diagnostics session (Table 6):

**Table 6:** Middle-ranking managers' results obtained through the use of all methods in the control and experimental group (Session 1)

| Management style   | Number of persons. | Striving for acceptance | Fear of rejection | Motivation to success | Avoidance of failures | Risk readiness | Job satisfaction |
|--------------------|--------------------|-------------------------|-------------------|-----------------------|-----------------------|----------------|------------------|
| Control group      |                    |                         |                   |                       |                       |                |                  |
| Style 9.9          | 4                  | 22.25                   | 9.75              | 20.5                  | 9.75                  | 20             | 60.5             |
| Style 9.1          | 5                  | 9.6                     | 8                 | 17.4                  | 12.6                  | 16             | 50               |
| Style 5.5          | 5                  | 14.2                    | 14.8              | 9.2                   | 17                    | 2.8            | 40.8             |
| Style 1.9          | 6                  | 10.6                    | 22.17             | 10.67                 | 17                    | -3.5           | 36.5             |
| Experimental group |                    |                         |                   |                       |                       |                |                  |



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|-----------|----------|-------|-------|------|------|-------|-------|
| Style 9.9 | 3        | 23.33 | 12.33 | 20   | 10   | 18.33 | 57.33 |
| Style 9.1 | 4        | 9.25  | 5.75  | 20.5 | 10   | 18.75 | 44    |
| Style 5.5 | 8        | 14    | 14.38 | 9.63 | 18.5 | -1.13 | 47.88 |
| Style 1.9 | 5        | 12.2  | 23.2  | 9.4  | 17.6 | -6.6  | 33.2  |

Psychological diagnostics conducted with the use of a Student's t-test has not revealed significant differences ( $t_{p < 0,7}$ ) between the groups (CG and SG), which proves adequate distribution of subjects in groups.

Middle managers' direct subordinates have been distributed in the control group and experimental

group, depending on the group, in which their managers had been included. The diagnostics of the subordinates has included all methods except "Identifying management style" (Blake R., Mouton J.) and has produced the following results (Table 7):

**Table 7:** Diagnostics results obtained by subordinates of the control and experimental group according to all methods (Session 1)

| Number of persons  | Striving for acceptance | Fear of rejection | Motivation to success | Avoidance of failures | Risk readiness | Job satisfaction |
|--------------------|-------------------------|-------------------|-----------------------|-----------------------|----------------|------------------|
| Control group      |                         |                   |                       |                       |                |                  |
| 40                 | 14.53                   | 14.4              | 12.8                  | 14.98                 | 5.43           | 44.85            |
| Experimental group |                         |                   |                       |                       |                |                  |
| 45                 | 13.13                   | 14.33             | 13.71                 | 15.13                 | 5.96           | 45.47            |

#### 4..CONCLUSION

The analysis of existing approaches to evaluation of middle managers' efficiency has provided a more specific concept of the term "efficiency." Also, it has helped develop three groups of criteria that are necessary for conducting an experimental study of the influence of managerial decision-making styles on a company's efficiency:

a group of production criteria of efficiency;

a group of social and organizational criteria of efficiency;

a group of psychological criteria of efficiency.

Analysis of diagnostics results and evaluation of middle managers' efficiency from the survey sample has confirmed the following:

The efficiency evaluation criteria developed for middle-ranking managers and chosen diagnostics methods fit the goals and objectives of the study;

GK Soyuzsnab's production work and socio-organizational indicators demonstrated by different affiliates and departments vary and do not reach planned levels;

Middle managers included in the control and experimental group use different managerial decision-making styles with differences in efficiency revealed through the use of production and socio-organizational evaluation criteria;

The discovered managerial decision-making styles have different leading motivations, degrees of risk readiness and job satisfaction;

It is necessary to develop and implement a effective managerial decision-making program for middle-ranking managers to improve production, socio-organizational and psychological characteristics of their professional activity.

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