# Gender Differences in Leader's Administrative Activity Characteristics (Management Features and Functions) 

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#### Abstract

This study presents the results revealing the specifics of the impact of gender role identity on the basic functions performance by leader's administrative activity and management features domination. To study gender and intersexual differences in the characteristics of administrative activity (management features and functions ). The test for psychological gender identity; method of professionalism level determining; test "Management features of the leader"; Semantic differential to identify the functions of management activity (factor analysis). The study involved 120 leaders of different sectors of activity: 60 men and 60 women. Age of subjects from 27-60 years. The study established typicalness and uniformity of management features distribution in priority at all three levels (strategy, objectives, means) in group leaders on the basis of intersexual distinctions. We found significant gender differences in the priority management features in the group of leaders. The basic functions of the leaders in the implementation of management activities on the basis of factor analysis: the goal-setting and decision-making function, communicative function, forecasting and planning function, monitoring and correction function, the organization and motivation function. We found the presence of significant differences in the performance of goal-setting and decision-making function in women's and men's groups.


Key words: Psychological gender, gender roles, management activity, leader's functions, management features

## INTRODUCTION

Management psychology studies the management activity organization leader as well as the factors influencing its success. As part of the science of great attention is paid to the leader's personality. There are studies demonstrating effective leadership style dependence on the individual psychological characteristics, psycho-physiological features of cognitive processes of persons whose duties include management. Another aspect of this problem is the nature of managerial work of the leader with specific requirements.

The main feature of human resource management is to provide a focused and coordinated activities of the team in order to solve its tasks (Stolyarenko, 2007). The leader solves a huge number of different professional tasks, working with large flows of information and on the contrary, falls into the uncertain and ambiguous situations when there is no ready answer and actions and he takes highly responsible decisions, guide and coordinate the work of his subordinates and works in conditions of economic risks and etc. (Karpov, 2006; Pfifer, 2014). Effective management requires the compliance with a number of functions such as goal-setting, planning and forecasting, communication
organization, motivation, decision-making, monitoring and correction. The complexity of management activities is the systematic performance of these functions by the leader.

Issues related to the peculiarities of the individual's gender and psychological differences, recently are among often discussed issues in psychology (Ballard-Reisch and Elton, 1992; Bem, 1981; Eagly and Wood, 2013; Hines, 2011). The changes in modern management show that the ratio of men and women in managerial positions is changing rapidly (Eagly et al., 2000; Koch et al., 2014; Twenge, 1997). More and more women become involved in entrepreneurship (Eagly and Carli, 2003; Eagly and Johannesen-Schmidt, 2001). Active combination of female and male behavior in business creates prerequisites for the study of gender-specific behavior of the person in management (Bendas, 2000; O'Keefe and Hyde, 1983). Gender studies in their turn may be able to improve the management (Hyde, 2005a, b; Petersen and Hyde, 2014; Wood and Ridgeway, 2010).

Due to the large increase in the number of women in management positions recent years the question of differences in the individual management concepts of men and women arises (Povarenkov et al., 2014; Powell et al., 2002) as well as does management activity of the leader depend on gender identity (Sugihara and Katsurada, 2002;

Williams et al., 1999). On this basis, it was decided to carry out a comparative study of gender and intersexual differences in the characteristics of management activity (management features and leader's function).

## MATERIALS AND METHODS

Test to determine the gender of psychological personality (Lopukhova, 2013); method of professionalism level determining; test "Management features of the leader" (Kabachenko, 2000); Semantic differential to identify the functions of management activities. Statistical methods for empirical data processing (t-criterion of a Student, Pearson's correlation coefficient, factor analysis).

Sampling: The study involved 120 leaders of different sectors of activity: 60 men and women. The age of subjects from 27-60 years.

The study of psychological gender of the leader: The study of psychological gender of identity determined that the largest part of the subjects and in male and female groups of leaders are people of androgynous type (63.4\% subjects of women's group and $60 \%$ subjects of male group). Androgynous individuals are the individuals having both feminine and masculine traits with adequate gender consciousness and a distinct gender identity. This combination of features allows the person to adhere to gender-role norms less rigidly and gives the opportunity to freely move from traditional female to male patterns of behavior and vice versa. In the male group, the proportion of subjects with masculine gender is $33.4 \%$ and in the female group $20 \%$. Masculinity is the manifestation of human motives normative characteristics of the male gender role in the society in the individual personality traits, characteristics and behavior and the structure. Feminine type leaders are fewer (women group 16.6\%, men group $6.6 \%$ ). Femininity is the manifestation of normative characteristics of female gender role in society in individual personality traits, characteristics and behavior and structure of human motives (Hyde, 2005a, b).

In connection, with the objectives and tasks of this research three groups of subjects by gender were formed. Further analysis compares the characteristics of the studied leaders' management activities differing by intersexual basis by psychological gender (two and three groups of subjects, respectively).

The study of leaders' management features: To study the plant managers, we used "Leader's management features"
test (Kabachenko, 2000). The study of strategic level of management activity led us to the conclusion on typical features of this type of leaders in male and female sampling. Averaged profiles have the same peaks and nature of the curves is the same. But, it should be noted that the level of strategy in the male leaders group is considerably higher.

At strategic level the innovative settings have a dominant position in the men group. In the women sampling is also showed the priority of innovations implementation in the organization activity. As the averaged profile shows the scale of this feature constitutes a significant peak but in contrast to the male group, it shows only the average level of the feature. Macroeconomic analysis in both samples is characterized by an average degree of dominance. It is characterized by the ability to clearly see the whole picture of economic activity and to take justified risk.

The task level is the second level management model of the leader. Distribution curve of this feature in female leaders coincides with the curve of male leaders. Differences in men and women groups as to features realization are almost not observed. The efficiency in the management interaction is priority for the leaders at task solving. Leaders believe that the ability to find solutions in unusual situations which is reflected in the application of creativity which ranks second on this level is an equally important component of their research. Therefore, we can make a conclusion about their effectiveness in addressing various problems in unconventional ways.

Description of features of this level leads us to the conclusion on the importance of effective, rapid and non-standard problems solutions without violating office duties for leaders of the two sampling groups. However, it is also interesting to note that the efficiency, creativity and promptness in administrative interaction is more common to the professional behavior of women than men leaders. A failure to comply with legal norms is more characteristic of men group leaders.

The third level of managerial orientations of managers is the level of facilities. The averaged profile displays to us the view of allocation of orientations at this level. The basic orientation the managers of both selections consider the orientation at social and psychological methods.

Managers of both sexes consider one of the factors for harmonized operation of the organization implementation of psychological approach, they strive to take into account individual and psychological features of the employees as well as motivational need aspects of psychological provisions of human resources management.

The priority of orientations of both groups of managers at this level is the same. The averaged profiles have the same curves. The only difference is that in the
female selection the degree for expression of the stated orientations are higher than in the male which was confirmed statistically.

Managerial orientation in the groups of managers under gender rule have allocated as follows. Consideration of strategic level demonstrate us true differences in the priority of managerial orientations in all three groups of managers. There is presence of essential peaks in the group of managers of feminine type observed, namely inclination to consider the total view of the problem and introduction of innovational novelties. A less vivid variation between average values of orientations is demonstrated in groups of androgynous and masculine managers. On this basis, it is possible to presuppose that managers of these groups consider effective implementation of all orientations accumulatively. Managers of androgynous and masculine gender also consider macroeconomic analysis of activity of the organization not less important. Managers of all three types consider orientations at political analysis and at analysis of social processes not less important in the course of resolving any tasks.

The averaged profiles of managers at the level of tasks obviously demonstrate the typicality in expression of orientations. In all three groups of managers, there are abilities of implementing creativity, operation and effectiveness observed in managerial interaction. The difference is in the fact that androgynous, masculine and feminine managers determine different essence of expressing these orientations (Table 1).

The most number of grades in groups of androgynous and masculine managers was given to orientation at effectiveness in managerial interaction. Feminine managers have shown the best results in orientation at creativity. The least number of grades at the level of tasks in all three groups was given to orientation at instrumental attitude to legal rules. The orientation shall be evaluated with the ability to achieve effectiveness by
all means, up to violation of the existing norms, including legal. Consequently, managers in their managerial activity keep legal rules and regulations.

Analysis of orientations at the level of facilities demonstrates special significance of implementing by managers of all three groups of administrative and regulatory, legal and social and psychological methods. Observation of informal methods in individual managerial concept of managers manifests much less. It is worth noting that feminine managers pay the least attention to off the job relations. The differences in values of managerial orientations observed in groups of managers under gender feature have been confirmed statistically.

Establishment of the level of professionalism of managers: Professionalism of managers was expressed with the help of methods of establishing the level of professionalism. In these methods, there are three levels of professionalism found: the level of pre-professionalism, the level of professionalism and the level of extra professionalism. The level of pre-professionalism is characterized by the fact that a human performs labor activity without possessing the qualities of a professional, having not mastered the rules and standards of the profession.

In both groups, there prevail managers with the level of professionalism. They consecutively master the qualities of a professional; learn the rules and the standards of the profession, stage by stage move from the simple to the highly-qualified labor. These managers assert themselves in the profession and are progressing by means of the profession. But in the female group there are managers, possessing a low level of professionalism ( $6.7 \%$ ). In the male group, there were no such managers detected. An insignificant share of persons under test is made of managers, possessing the highest level of professionalism. They carry out professional activity in its high achievements, demonstrating creative success. At

Table 1: Analysis of differences in orientations of managers in groups of persons under test
Group under comparison

| Orientations of managers | Women-Men | Androgynous-Masculine | Androgynous-Feminine | Masculine-Feminine |
| :--- | :--- | :---: | :---: | :---: |
| Orientation at political analysis | $t=0.08$ | $t=2.5^{* *}$ | $t=0.92$ | $t=2.66^{* *}$ |
| Orientation at macroeconomic analysis | $t=2.45^{* *}$ | $t=1.5$ | $t=1.8^{*}$ | $t=-2.68^{* *}$ |
| Orientation at analysis of social processes | $t=1.11$ | $t=0.89$ | $t=1.4$ | $t=0.81$ |
| Innovational orientation | $t=1.5$ | $t=0.85$ | $t=0.10$ | $t=0.64$ |
| Creativity | $t=0.08$ | $t=0.99$ | $t=2.59^{* *}$ | $t=1.5$ |
| Operation | $t=0.09$ | $t=1.5$ | $t=0.58$ | $t=0.48$ |
| Effectiveness in managerial interaction | $t=0.08$ | $t=0.03$ | $t=0.65$ | $t=0.61$ |
| Instrumental attitude to legal rules | $t=0.26$ | $t=1.51$ | $t=0.72$ | $t=1.5$ |
| Orientation at administrative and regulatory methods | $t=2.77^{* * *}$ | $t=0.48$ | $t=0.84$ | $t=0.47$ |
| Orientation at legal rules | $t=2.54^{* * *}$ | $t=1.44$ | $t=0.88$ | $t=1.5$ |
| Orientation at social and psy chological methods | $t=0.17$ | $t=1.18$ | $t=2.02^{* *}$ | $t=2.61^{* *}$ |
| Orientation at methods of informal organization | $t=0.24$ | $t=0.9$ | $t=1.5$ | $t=2.09^{* *}$ |

this level, creative enrichment of the profession with personal contribution of a professional takes place. As the result of analysis of average values, it was detected that men-managers possess a higher level of professionalism, they master qualities of a professional manager faster as well as learn the norms and regulations of the profession.

A study of gender differences in the level of professionalism of managers has shown that in all three groups there are no managers with the level of pre-professionalism. The prevailing number of persons under test in each group possesses a level of professionalism. The majority of managers of each psychological sex have mastered the rules of professional activity; they acquire professional skills step by step and reach high results of their activity.

In the group of feminine and masculine managers, the share of managers with the higher level of professionalism is larger than in the group of androgynous managers (6.2, 12.5 and $14.2 \%$, respectively). Managers with higher level of professionalism possess creative orientation in professional activity, individuality in professional labor and carry out self-development of professional abilities. Analysis of the average has demonstrated presence of true differences in the level of professionalism of persons under test of the groups under comparison. Managers of masculine type have reached higher results of their activity and have mastered the rules of the profession.

Establishment of basic functions of managers: To detect the functions of managerial activity we have made a list of statements of a successful manager. As the criterion of effectiveness of management we used model understandings of Karpov (2006) about successful management, considering the basic functions of the manager: a function of goal-setting, forecasting and planning, a communicative function, a function of organizing, motivating, a function of making decisions as well as control and correction. Further, all the stressed statements (totally 60) were transformed into a semantic differential. Persons under test were offered to evaluate every of the statements as inherent or not inherent to them in the course of performing managerial activity at the scale from 1-5 (1: not inherent, 5: absolute degree of conformity). The "raw" values were processed with the help of factorial analysis which permitted to divide all statements into five groups depending on the factorial loading.

The first factor was the most powerful in its fullness, it included statements reflecting the ability of a manager to put objective and realistic goals and to make effective decisions n the course of realization of these goals. The
factor was named "Function of goal-setting and making decisions". The second factor was less full. It included statements, connected with the ability of a manager to effectively interact with the employees. Respectively, this factor has got the name "Communicative function". The third factor is filled with statements, the key content of which corresponds with the ability to forecast the future condition of the whole organization as well as the outside environment. On this basis the factor was named by us "Function of forecasting and planning". The fourth factor included statements, connected with controlling of both realization of the set tasks and goals and the operation of the organization on the whole. Based on the contents of this factor, it was named "Function of control and correction". Statements, included into the fifth factor, correspond with the ability to support the atmosphere of working capacity in the team. Therefore, its name is characterized as "Function of organizing and motivating".

For each factor there were average values calculated which were taken by persons under test separately in a female and a male selection of managers and separately in groups of managers, united under the gender rule.

As it is seen from the averaged profile, the values for all functions in the groups of managers, different under the intersex rule are within the range from 3-4 grades. The peak of the profile falls at the communicative function. This means that managers take care of effective interaction with their employees. The least value belongs to the function of forecasting and planning.

In the groups of managers, different under the gender rule, average values of the described factors are also within the range from 3-4 grades. Averaged profiles of androgynous, masculine and feminine managers almost coincide. The most important in all three groups is considered the communicative function. But, it is worth mentioning that the greatest expression is found by this function with managers of feminine type. The less significant is the function of organizing and motivating the employees (Table 2).

The results of t-test have confirmed presence of differences in performing by managers of the women and the men group of the function of goal-setting and making decisions ( $\mathrm{p} \leq 0.1$ ). The men in their managerial activity give more essence to skills to put objective goals and to make effective decisions in the course of realization of these goals. Between the managers in groups under gender rule there were no true differences detected. All managers consider observation of all functions stressed by us equally important. This is confirmed by the fact that all managerial functions are important and tightly linked with each other.

Table 2:Analysis of differences in functions of managers in groups of persons under test
Groups under comparison

| Name of the factor | Women-Men | Androgynous-Masculine | Androgynous-Feminine | Masculine-Feminine |
| :---: | :---: | :---: | :---: | :---: |
| Function of goal-setting and making decisions | $\mathrm{t}=1.7$ * | $\mathrm{t}=0.36$ | $\mathrm{t}=0.54$ | $\mathrm{t}=0.18$ |
| Communicative function | $\mathrm{t}=0.77$ | $\mathrm{t}=0.08$ | $\mathrm{t}=-0.43$ | $\mathrm{t}=-0.44$ |
| Function of forecasting and planning | $\mathrm{t}=0.67$ | $\mathrm{t}=-0.25$ | $\mathrm{t}=0.62$ | $\mathrm{t}=0.73$ |
| Function of control and correction | $\mathrm{t}=0.07$ | $\mathrm{t}=0.34$ | $\mathrm{t}=0.19$ | $\mathrm{t}=-0.06$ |
| Function of organizing and motivating | $t=0.92$ | $t=0.31$ | $t=-0.25$ | $\mathrm{t}=-0.43$ |

Detecting of the nature and the degree of interrelation between managerial orientation, functions of managerial activity, the level of professionalism and psychological sex of managers.

For the complete understanding of the peculiar features of realization of characteristics of managerial activity it is necessary to perform the correlation analysis of values under research with the help of the coefficient of linear correlation by Pierson. Proceeding from these data there were correlation matrixes of feminine and masculine built as well as professionalism, managerial orientations and functions of managerial activity in groups of managers, united under the intersex and gender rule.

Correlation analysis of values under research permitted to state that managers of masculine type reach high level of professionalism due to such qualities as strength, firmness, determination, cruelty, insistence. Asserting himself in managerial activity and progressing himself in by means of this activity, managers start more often express traditionally male features and qualities in their behavior. But, normative characteristics of male sex role, adopted in the society do not influence the performance of allocation of the staff and using legal rules in the course of deciding managerial tasks. The true reverse correlation dependence is detected between the values of feminine features and creativity. Respectively, managers of feminine type possess a low level of creative activity and experience difficulties in non-standards situations, requiring heuristic decisions.

Managers of androgynous type, orienting at goal-setting and making effective decisions to a lesser extent rely on traditionally female characteristics, effective of the made decisions is reached by dominating of masculine features. However, striving of androgynous managers towards creation of favorable social and psychological climate in the team is not based on typical male features, like strength, cruelty, firmness, insistence. In the course of realization of functions of organizing and motivating the employees, the priority turn out to be female features of behavior.

## RESULTS AND DISCUSSION

It was detected that among managers there prevail persons of androgynous type ( $61.6 \%$ ), possessing at the same time feminine and masculine features at the adequate
sexual self-conscience and distinct sexual identity. Managers realize their sex-role identity but depending on the situation they can express feminine and masculine features. In managerial activity, this permits the manager to be more flexible and less firmly and to stick to sex-role rules, freely move from the traditionally female patterns to male and vice versa.

Typicality and homogeneousness of allocation of managerial orientations as to priority at all three levels is established (strategies, tasks, facilities) in groups of managers under intersex rule. There were detected true differences in priority of managerial orientations in groups of managers under gender rule. Managers of masculine type to a greater extent are oriented at expressing creativity and using social and psychological methods of managerial activity. Also in a group of managers of masculine type as compared to feminine and androgynous persons, it is noted dominating of orientation at macroeconomic and political analysis of the situation.

Definitely, the level of professionalism of managers, different in both sex and gender rules is high (based on statistical analysis of the average). Nevertheless, it is necessary to note that only in group of women managers and in group of persons under test of feminine type there happen persons, possessing a low level of professionalism.

As the result of factorial analysis there are five functions of managerial activity detected: a function of goal-setting and making decisions, a communicative function, a function of forecasting and planning, control and correction, a function of organizing and motivating.

Presence of true differences is detected in the course of performing functions of goal-setting and making decisions by managers of female and male groups. Men-managers in the course of performing their obligations to a greater extent are oriented at definite formulating of goals and distinct vision of the end result of the decision made. In a women selection of managers, on the contrary, it is a tendency towards downgrading of the essence of goal-setting observed, when control over the process of goal achievement and comparison of results with the primarily made decision are not carried out. Also women-managers, unlike men are able to make decisions in situations of insufficient informing and increased risk which reduces the effectiveness of their managerial activity. There are no true differences in the
course of performing managerial functions in groups of managers different under gender rule detected.

## CONCLUSION

The study highlights the actual problem in the sphere of psychology of management, lying in consideration of intersex differences in basic characteristics of the activity of managers. There are results, opening the specificity of influence by the sex-role identity on performance by managers of the main functions of managerial activity and dominating of managerial orientations presented. The subject matter of the research is not only in the framework of psychology of management but also in psychology of professional activity. Intersex specific features are under study also in establishment of the level of professionalism. There are basic functions of managers in the course of performing managerial activity detected based on the factorial analysis: a function of goal-setting and making decisions, a communicative function, a function of forecasting and planning, a function of control and correction, a function of organizing and motivating.

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## REFERENCES

Ballard-Reisch, D. and M. Elton, 1992. Gender Orientation and the Bem Sex Role Inventory: A Psychological Construct Revisited. Sex Roles, 27 (5): 291.
Bem, S.L., 1981. Gender schema theory: A cognitive account of sex typing. Psychological Review, 88 (4): 354-364.
Bendas, T.V., 2000. Gender investigations of leadership. Voprosy Psikhologii, 1: 93-95.
Eagly, A.H., W. Wood, A.B. Diekman, T. Eckes, H.M. Trautner and N.J. Mahwah, 2000. The Developmental Social Psychology of Gender.: Erlbaum, pp: 123-174.
Eagly, A.H. and M.C. Johannesen-Schmidt, 2001. The leadership styles of women and men. J. Soc. Issues, 57 (4): 781-797.
Eagly, A.H. and L.L. Carli, 2003. The female leadership advantage: An evaluation of the evidence. Leadership Quarterly, 14 (6): 807-834.
Eagly, A.H. and W. Wood, 2013. The Nature-Nurture Debates: 25 Years of Challenges in Understanding the Psychology of Gender. Perspectives on Psychological Sci., 8 (3): 340-357.

Hines, M., 2011. Gender development and the human brain. Annual Review of Neuroscience, 34: 69-88.
Hyde, J.S., 2005a. Gender similarities and differences. Annual Review of Psychology, 65: 373-398.
Hyde, J.S., 2005b. The gender similarities hypothesis. American Psychologist, 60 (6): 581-592.
Kabachenko, T.S., 2000. Organizational psychology. Moscow, pp: 384.
Karpov, A.V., 2006. Organization's regularities of reflexive processes structure. Psikhologicheskii Zhurnal, 27 (6): 18-28.
Koch, A.J., S.D. D'Mello and P.R. Sackett, 2014. A Meta-Analysis of Gender Stereotypes and Bias in Experimental Simulations of Employment Decision Making. Journal of Applied Psychology.
Lopukhova, O.G., 2013. The questionnaire "masculinity, femininity and the gender type of personality" (the Russian analogue of bern sex role inventory). Voprosy Psikhologii, 1: 147-154.
O'Keefe, E.S.C. and J.S. Hyde, 1983. The development of occupational sex-role stereotypes: The effects of gender stability and age. Sex Roles, 9 (4): 481-492.
Petersen, J. and J.S. Hyde, 2014. Gender-Related Academic and Occupational Interests and Goals. Advances in Child Development and Behavior, 47: 43-76.
Pfifer, C., 2014. The Gender Composition of Establishments Workforces and Gender Gaps in Wages and Leadership Positions. Manchester School, 82 (S2): 69-81.
Povarenkov, Yu. P., Slepko, Yu. N. and Tcymbaluk, A.E., 2014. VI All-Russian scientific-and-practical conference "Systemogenesis of academic and professional activity", Psikhologicheskii Zhurnal, 35 (4): 121-123.
Powell, G.N., D. Anthony Butterfield and J.D. Parent, 2002. Gender and managerial stereotypes: Have the times changed? J. Manage., 28 (2): 177-193.
Stolyarenko, L.D., 2007. Organizational Psychology. Rostov-na-Donu, pp: 507.
Sugihara, Y., Katsurada, E., 2002. Gender role development in Japanese culture: Diminishing gender role differences in a contemporary society Sex Roles, 47 (9-10): 443-452.
Twenge, J.M., 1997. Changes in masculine and feminine traits over time: A meta-analysis. Sex Roles, 36 (5-6): 305-325.
Williams, J.E., R.C. Satterwhite and D.L. Best, 1999. Pancultural gender stereotypes revisited: The five factor model. Sex Roles, 40 (7-8): 513-525.
Wood, W. and C.L. Ridgeway, 2010. Gender: An interdisciplinary perspective. Social Psychology Quarterly, 73 (4): 334-339.

