

The Impact of Managerial Leadership Behaviour on the Human Resource Management in the Information Technology Sector in Bulgaria

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Abstract

The globalization of the economy, the transition to an information society and the strengthening of the role of the human factor in the IT sector lead to an increase in the importance of leadership. Human resource management is inextricably linked to the application of innovative and adaptive leadership approaches. In the IT sector, where changes are very dynamic and challenges are often critical, leadership plays an important role in motivating, developing and retaining qualified staff. The purpose of this paper is to investigate the impact of managerial leadership behaviour on the success of HRM strategies and policies in companies of the IT sector in Bulgaria. The main research results are: summarized assessments of the opinions of managers and employees in the IT sector about the impact of leadership behaviour on the success of human resource management strategies and policies in companies in

the sector; substantiated reliability of the statements describing the leadership factors; assessed statistical significance of the results obtained from the survey.

Keywords: IT sector; human resource management; manager; leadership behaviour; strategies.

JEL: M15, M54

1. Introduction

In the last decades of the 20th century and in the 21st century, the information technology (IT) sector has seen an accelerated and sustained development, on global and European scale, as well as in Bulgaria. The role of the sector in economic processes is also changing, transforming from a service and auxiliary sector into a leading one as well as one of the most dynamically developing economic sectors. The IT industry is a creator and carrier of highly innovative technological and product solutions, generating very high added value. The simultaneous rapid spread of mobile communications and

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network connectivity in all countries is giving further impetus to the development of the IT sector. It also provides high-paying jobs for educated and competent professionals. An important characteristic of the sector is that human resources, with their potential and motivation, are a prime factor in the innovative development of enterprises, in increasing their competitiveness and economic prosperity. At the same time, technological progress is leading to changes in the expectations, requirements, functional duties and responsibilities of IT professionals. This sets new requirements and adds new features to the management of human resources in the industry. As significant examples of research on human resource management in the IT sector, we can point to studies on project managers in the software industry (Sukhoo, Barnard, Eloff, Van Der Poll, Motah); head of IT department (Bassellier, Benbasat, Reich,); junior IT employees (McMurtrey, Downey, Zeltmann, Friedman), business analysts (Misic, Graf) and those employed in the computer business in general (Kovacs, Caputo, Turchek, Davis). However, the mentioned publications explore various aspects of human resource management, but do not examine the influence of the manager's leadership behavior on human resource management in the IT sector. At the same time, leadership is a determining factor for the success of the organization and the full use of human resources to achieve its strategic goals. This is the main argument for focusing the present work on the study of the influence of the manager's leadership behavior on human resource management.

The range of activities is being significantly enriched, with the automation of information processing being joined by the design,

management, maintenance and upgrading of information systems and the provision of a wide range of technical, business and consultancy services. The availability and accessibility of human resources with adequate levels of education, professional knowledge, skills, competencies and motivation is therefore fundamental to the realization of the market potential of the IT sector and the success of its companies. Therefore, the development and implementation of effective human resource management strategies and policies in the industry becomes an issue of paramount importance.

The leadership approach in human resource management plays an important role in addressing issues related to staff mobility and the shortage of specialists. By implementing tailored strategies oriented towards support and work-life balance, leaders can create a more attractive work environment. In addition, introducing feedback and transparency mechanisms in management strengthens employee trust and commitment. It is important to point out that the potential of any venture in the IT sector is contained in its people, reflected in its identity and in the ability to exploit that identity to create a competitive product with high value for users. Value creation requires collaboration, and collaboration requires informally bringing people together into an effective collective. The decisive factor in achieving this unification is the leader with his behaviour and competences. They are the basic prerequisite for achieving efficient work in companies of the IT sector. Leadership is one of the most critical success factors in any organization. At the core of this reality is the role of the manager, who is not just a resource or process manager, but the mentor who inspires, motivates and shapes the overall

culture of the team. A manager's leadership skills are not just a formal skill, but a complex set of traits that includes strategic thinking, communication, problem-solving and, above all, the ability to understand and empower the people they lead. Leadership is a process of influencing and guiding individuals or groups toward achieving common goals (Northouse, 2021). This influence is not limited to formal authority; rather, it encompasses a wide range of interpersonal skills, vision, and decision-making capabilities that inspire and motivate others. According to Zeitchik (Zeitchik, 2012) leadership is inspiring the team to pursue the leader's vision within the parameters he sets as long as it becomes a shared effort, vision, and success. Kruse argues that leadership is a process of social influence that maximizes the efforts of others, towards the achievement of a goal (Kruse, 2013).

In this context, the aim of this paper is to investigate the impact of manager's leadership behaviour on the successful implementation of human resource management strategies and policies in the companies of the Information Technologies sector in Bulgaria. In order to fulfil the aim of the study, data from a survey conducted in October 2024 among managers and employees of companies or freelancers in the IT sector in Bulgaria are used. In order to achieve the set objective, the methods of frequency analysis, ANOVA, and reliability analysis were used. The main research results of the study are: summarized assessments of the opinions of managers and employees in the IT sector about the impact of manager's leadership behaviour on the successful implementation of human resource management strategies and policies in the companies of the industry; justified reliability of the statements describing the leadership

factors; assessed statistical significance of the results obtained from the survey.

2. Statement of the Problem

Information and Communication Technologies (ICT) are a key driver of Europe's digital revolution - from smart end devices to superfast internet, mobile applications and research into future and emerging technologies. ICT is also a fundamental enabler of a competitive knowledge-based economy, an innovative and inclusive information society delivering a high quality of life for citizens. Information technology (IT), as defined by the Information Technology Association of America (ITAA), is "the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware." (ITAA) IT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit, and securely retrieve information. In purpose of the article the ICT sector is defined according to the definition provided by the OECD and based on the NACE (Statistical Classification of Economic Activities in the European Community) Rev.2 (2008) (Ministry of transport and communication). The impact of the development and widespread adoption of ICTs covers all socio-economic sectors (Ministry of Transport, 2019, p.8). The value of the ICT sector to Europe's economy has increased nearly fourfold over the last decade. Bulgaria, as part of the global European family, follows the common directions of development of the information society. According to the Digital Europe Progress Report, Bulgaria ranks 28th out of 28 Member States in the European Commission's Digital Economy and Society Index (DESI) 2019 (Ministry of Transport,

2019, p.18). Bulgaria is doing relatively well in the area of connectivity, especially in terms of widespread access to superfast and mobile broadband networks (Ministry of Transport, 2019, p.18). It has also made significant progress in the e-Government dimension, with an increasing number of users and high scores for the provision of digital public services to enterprises (Ministry of Transport, 2019, p.18). Bulgaria scores significantly below average in the Human Capital dimension, and the overall level of digital skills is among the lowest in the EU. Bulgaria is also well below average in the adoption of digital technologies (Ministry of Transport, 2019, p.18). The highest value-added growth in the sector among EU Member States is recorded in three countries and one of them is Bulgaria along with Luxembourg and Poland. The Bulgarian ICT sector includes sub-sectors such as computer hardware manufacturing, software developers, software integrators, telecommunication services (internet and telephone services) and IT consultants (Ministry of Transport, 2019, p.25).

Revenues from the businesses of software companies in Bulgaria in 2024 amount to BGN 9785 million, which is an increase of BGN 1080 million (12.41%) compared to 2023 and accounts for 4.9 % of the GDP. Operating revenues have increased more than 8.5 times over a 13-year period. There has been a steady upward trend in the software industry's share of GDP (BASSCOM, 2024). More than 85 % of revenues are from exports, with export revenues reaching BGN 8.5 billion in 2024, an increase by 11.4 % as compared to 2023. The total number of employees in the software industry exceeds 60,000 and their productivity is 4 times higher than the average for the Bulgarian economy. The forecast for the development of the software industry for

2026 foresees revenues to exceed BGN 15 billion, exports to exceed BGN 12 billion and the number of employees to grow to 79,100. In the last decade, Bulgaria has been developing as one of the best outsourcing and offshoring business destinations, which is evident from the data in the Annual Industry Report 2024 of the Bulgarian Association for Innovation, Business Services and Technology (AIBEST Annual Report, 2024). The report covers 817 Bulgarian companies operating in three main segments - 25 companies in R&D (Research and development), 379 companies in BPO (Business process outsourcing) and 413 companies in ITO (Information technology outsourcing). In 2023, the sourcing sector's operating revenue grew at an annual rate of 10.8%, a decrease from 16.9% in 2022. Despite this, it maintained double-digit growth. Additionally, 20 new sourcing vendors were established between 2023 and early 2024. The BPO segment led with 16 new entrants, followed by R&D with three, and ITO with one. The forecast is that the total operating revenues are to exceed €8.9 billion by 2025, more than double the €4.2 billion generated in 2021 (AIBEST Annual Report, 2022). The sector employed a total of 104,404 full-time employees in 2023, with the total number of employees expected to exceed 120,000 by 2025. Sourcing companies contributed EUR 74.2 mln in taxes in 2023, a 6.2 % annual increase. ITO was the largest taxpayer, contributing 49% of the sector's total tax revenue. The sector's combined net profit grew by 19.4 % y/y in 2023. Total net profit reached EUR 691.2 mln, yielding a net profit margin of 12.8%—the highest in the analysed period. Companies are forecasted to have a total turnover equivalent to 9 % of GDP by 2025 (AIBEST Annual Report, 2022).

The rapid and sustained development of the IT sector in Bulgaria is also bringing to significant quantitative and qualitative transformations in the management of human resources in the sector. (Dimitrova & Vladov, 2017, p. 191) The size of companies' operations and revenues is increasing, most of them are focusing on developing innovative products and technologies, and the number of employees is growing. There is increasing competition in the market. This, in turn, leads to an increase in the requirements for the knowledge, skills and competencies of those employed in the sector, increasing the demand for specific groups of narrow specialists possessing unique expertise and high qualifications, as well as for professionally trained managers and marketing specialists. Access to talent is the most significant external factor in terms of impact on business, and securing talent for the software sector should become a top priority in forthcoming years (BASSCOM, 2022). At the same time, companies in the IT sector face serious difficulties in the process of recruitment and selection of the staff they need, and there is no imminent solution to this problem (Dimitrova, Vladov). All this forces employers in the IT sector to search for and implement new approaches and relevant policies regarding human resource management. Previous research by one of the authors has established that there are systemic problems of different nature and significance related to the individual functional areas of HRM. It has been concluded that a significant part of these problems have not found their theoretical and practical solution (Dimitrova, Vladov; Dimitrova, Vladov; Dimitrova; Dimitrova, Vladov; Dimitrova). Today, as can be seen from the literature review, many researchers are united around the opinion that leaders

with their behavior in most cases determine the success and effectiveness of the enterprise's human resources management, and hence it's overall prosperity. In order to successfully perform their managerial functions, managers in the IT sector at all levels must be leaders. For these reasons, the research problem the impact of managerial leadership behaviour on the human resource management in the IT-sector in Bulgaria acquires significant theoretical and applied importance. This article examines the main characteristics of the leader's influence in the IT sector and assesses their significance. In this way, the study would help to derive new empirical results and add to the theoretical and practical knowledge about the impact of managerial leadership behaviour on the human resource management in the information technology sector in Bulgaria.

3. Leadership and Leadership behavior of the Manager

Leadership today is one of the most widely discussed and at the same time one of the most complex topics, as it is one of the central concepts in the theory of Management Science (Goleman, 2000). It is considered as one of the key components in the success or failure of organizations (Katz & Kahn, 1968), as it is the decisive element that explains why one organization succeeds and another does not (Hersey, P., Blanchard, K. & Johnson, D., 2013). As a crucial factor of organizational effectiveness and success, it is not surprising that leadership and the search for effective approaches concern scientific research, businesses and organizations in general (Katsaros, K., Tsirikas, A. & Kosta, G. (2020). "Leadership is a process of influencing the activities of an organizational group of

individuals in relation to the realization of its objectives" (Stogdill, 1950). "It is a process designed to influence an individual or a group in order to achieve certain goals in certain circumstances" (Hersey & Blanchard, 1972). In addition to organizational performance, researchers have consistently found a strong relationship between leadership styles and behaviors and subordinates' job satisfaction and performance (Schriesheim & Neider, 1996; Howell & D. Costley, 2003). The phenomenon of "leadership" has been the subject of extensive study and discussion since the last century, yet there is no consensus on the definition of "leadership." In this regard, Stogdill (1974, p. 259) notes that "there are almost as many definitions of leadership as there are people who have attempted to define the concept," and Fiedler adds that there are almost as many definitions of leadership as there are theories of leadership - and almost as many theories as there are psychologists working in the field" (Fiedler, 1971). In short, leadership has been described as a process of "disproportionate influence" universally associated with power and status, and it is important to understand how power and status are distributed in a society in order to gain a clear understanding of leadership in that society (Dickson, Den Hartog, & Mitchelson, 2003).

Leadership is a process in which the manager can influence employees in the enterprise to obtain a better result and ensure the maximum performance of individual or group tasks and the achievement of certain goals. P. Drucker emphasizes that "leadership is the ability to bring the performance of human activity to the level of higher standards, and also the ability to form a personality, going beyond the ordinary limiting frameworks" (Drucker, 2013). W. Cohen sees "leadership

as the art of getting people to work to the best of their ability to accomplish any task, goal or project" (Cohen, 2002). Lamb and McKee (2004) concluded from their study that an effective manager-leader must be trustworthy and it is necessary to be able to communicate the vision of where the organization needs to go. Leadership is a vocation, way of thinking and attitude to the world and surrounding people. Leadership is a combination of carrying out activities that takes into account people's value system, their interests, while motivating them to perform their assigned tasks in the best possible way, as well as developing their creativity and potential for the benefit of the organization (Usheva & Danchova, 2019, p. 79). Effective leadership is a multivalued function, including patience, stable vision, determination, dedication and constant pursuit of development and progress (Danchova, 2019. p.143).

A leader's possession of values and behaviour that are attractive to followers is the basis of authority, which is a determinant of leadership (Filipova, 2015, p.117). But for a manager to be a successful leader, it is not enough to accept and become a carrier of the values of the group that follows him. He needs to set an example with his leadership behaviour and motivate the employees" (Kydriashova, 1996, p.84).

Different competencies are displayed and sought in leaders who act in different situations. But practice shows that it is not the qualities and competencies but the actions and deeds of the leader that have a decisive influence on followers. In fact, the same activity can be carried out differently by different leaders according to their individual characteristics and preferences, and possibly with equal effectiveness. In this regard, Filipova points out that "the personal

and business qualities of the leader are not the least important in ensuring the activity and largely determine its effectiveness. But the successful development of the manager into a leader depends on his ability to manifest the necessary competencies in the relevant situations (Filipova, 2015, p.117). An effective leader in today's organizational environment must not only have the skills to think strategically and adapt to dynamic conditions, but also to make meaning and inspire followers. An effective leader must be able to adapt to dynamic change and apply the leadership approaches best suited to the specific conditions (Hadzhiev, 2012; Roberts & Hunt, 1991; Pearce & Manz, 2005; Pearce, Conger & Locke, 2008). According to Forsyth (Forsyth, 2010), leaders apply different leadership approaches in motivating and persuading employees to achieve the set goals. There are two main leadership approaches they can apply: a task-oriented approach and an employee-oriented approach. A task-oriented approach puts the emphasis on task performance, even if it means neglecting good employee relations. On the other hand, the employee-oriented approach focuses on maintaining good relations with subordinates and motivating employees.

From one perspective, "the personality of the leader, his value system and personal example and behaviour determine his uniqueness. Leadership behaviour is achieved by applying leadership qualities such as moral values and convictions, character, experience, knowledge and skills" (Usheva, 2010, p.23). From another perspective, at the core of leadership behavior is leadership style, which "is rather a choice of a managerial technique and of a managerial approach with respect to the leadership of the subjective factor" (Kilgus, 1994, p.293). The leadership style of

the manager leaves its mark on the overall development of the enterprise. It is considered that it is "a specific characteristic that expresses the peculiarities of a manager's behaviour. It is the way in which a manager tries to influence his subordinates"(Zahariev, 1999, p.398). Based on the above, we can summarize that the leadership behaviour of the manager is formed by the leadership qualities possessed and the leadership style applied in the process of working with employees. The leadership behaviour of the manager has a huge impact on the successful implementation of human resource management strategies and policies in the information technology sector in Bulgaria.

4. Survey Results

4.1. Methodological Framework of the Survey

In order to investigate the impact of leadership behaviour of managers on the successful implementation of human resource management strategies and policies in the information technology sector in Bulgaria, the paper uses a deductive approach. The research hypothesis that "The manager, with his leadership behaviour, influences the successful implementation of the organizations' human resource management strategies and policies" is brought forward. This hypothesis is tested by analysing the primary quantitative data collected, based on the responses given by the respondents, on the leadership behaviour of the managers. The survey included, on the one hand, company managers and HR professionals and, on the other hand, full-time employees working in the industry. The samples were formed by the method of respondents. The survey was conducted by the authors in October 2024 using the self-selection sampling method by

an online questionnaire. The total number of respondents was 300, with 150 respondents in the manager group and 150 respondents in the employee group. The respondents included in the survey are managers and employees in 48 companies, of which 36 are Bulgarian and 12 are foreign.

Information was collected in accordance with the following demographic characteristics of the respondents: sex, age, educational level. The study of the impact of leadership behaviour of managers on the success of human resource management strategies and policies was conducted by including Likert scale questions/statements. SPSS was used to process the obtained results. Consequently, the methods of frequency analysis, ANOVA and reliability analysis were applied to perform descriptive and inferential analysis of the raw data coded and entered into SPSS. The characteristics of the respondents were summarized. The information required for the analysis was structured by applying frequency analysis. In order to investigate the relationship and dependency between the different factors, the methods of correlation and regression analysis were used. The results allow to establish the degree and strength of correlation between the different variables.

The validity of the questionnaire has been verified through a pilot study of individuals in the sample. As a result, gaps, errors, deficiencies and problems in the questionnaire were identified and rectified. The reliability of the questionnaire was verified by Cronbach's Alpha testing, ensuring internal consistency between the statements used in the questionnaire. Ethical requirements as well as those of the GDPR were followed in the data collection. Respondents were informed about

the purpose and reason for conducting the survey.

4.2. Analysis and Evaluation of the Survey Results

The results of the survey regarding the age structure of managers and employees in the IT sector show that both groups are dominated by relatively young people, with the highest relative share of employees aged 26-35 (54.2 %). Most of the managers fall into the 36-45 age group (44.1 %). No significant differences were found in the age and age structure of the two groups of respondents. Data from the section on personal characteristics show that employees in the sector are predominantly young, with 94.1 % of employees completing the survey and 86.8 % of managers are 45 years old or under that age (see Figure 1).

Fig. 2 shows the distribution of respondents by sex. It can be seen that for both groups of respondents, the relative share of women is approximately one third, with female employees being marginally higher (by 0.6 %) than female managers. It is important to note here the positive fact that the value of this indicator for Bulgaria is significantly higher than the European average of 17 %. (see Figure 2). (European Institute for Gender Equality)

The data on the structure of the two groups of respondents according to the level of education allow us to establish that the personnel employed in the IT sector are predominantly with higher education, 84.6 % respectively (of which 30.4 % with a Bachelor's degree and 54.2% with a Master's degree). An even higher proportion (97 %) of managers are university graduates, with 76.9 % having a Master's degree and 20.1 % having a Bachelor's degree, the majority of whom (76.6 %) have a Master's degree. Therefore, it

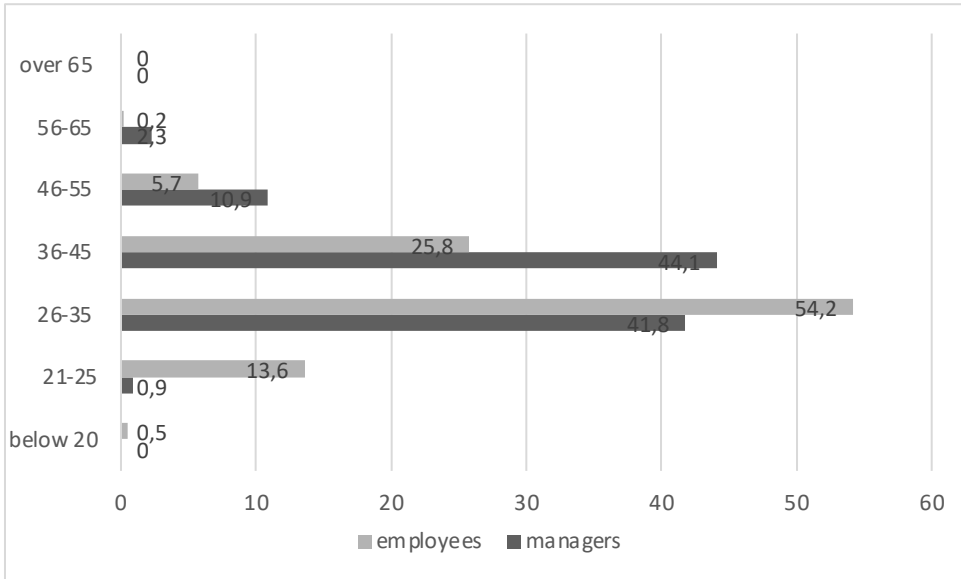


Figure 1. Structure of respondents – IT-sector managers and employees by age
Source: authors' research and calculations

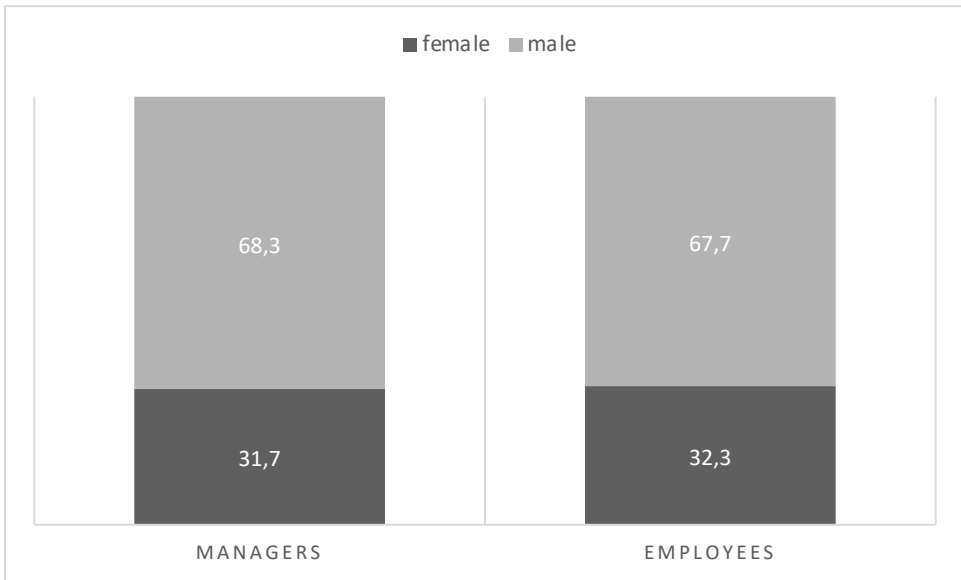


Figure 2. Structure of respondents – IT-sector managers and employees by sex
Source: authors' research and calculations

can be concluded that a very large proportion of those working in the industry are educated at tertiary level and above (see Figure 3).

The next aspect of the study is the descriptive analysis on the impact of the manager's leadership behaviour on: job satisfaction, companies' performance,

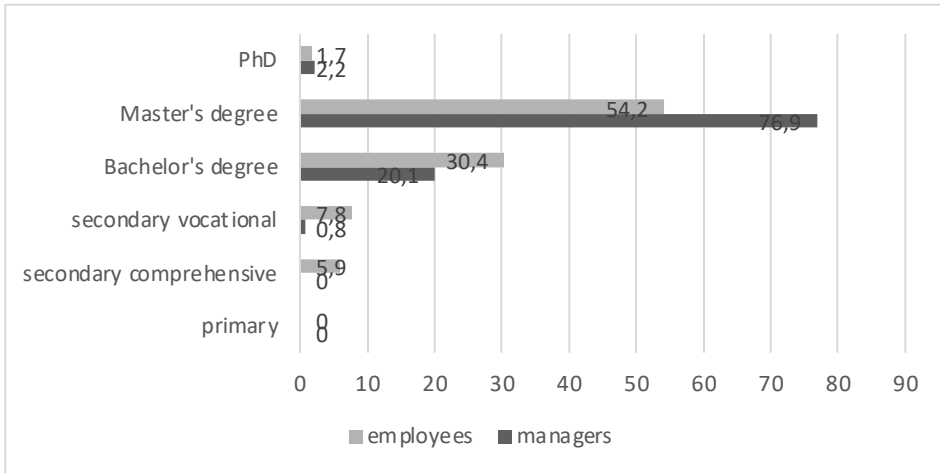


Figure 3. Structure of respondents - IT-sector managers and employees according to their level of education

Source: authors' research and calculations

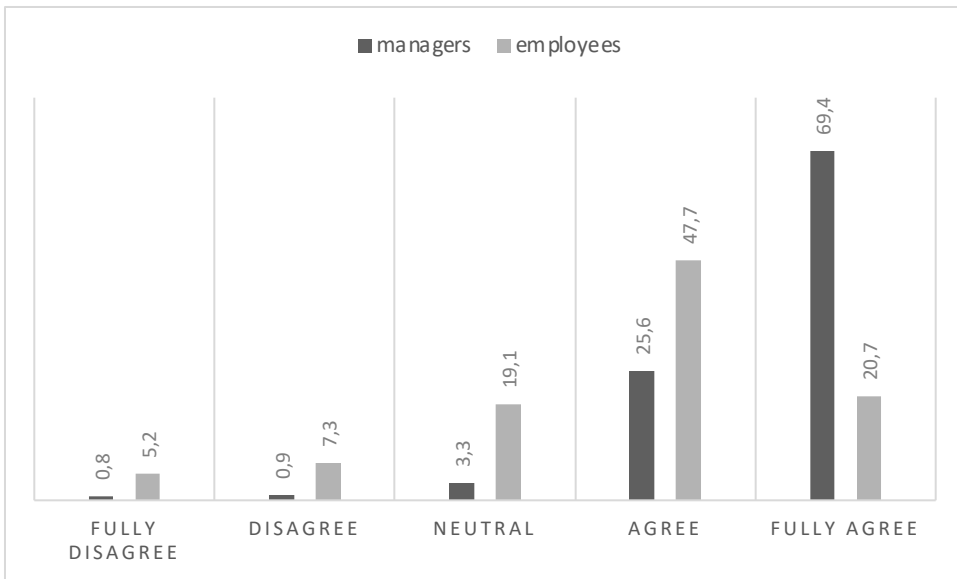


Figure 4. Influence of manager's leadership behaviour on job satisfaction of respondents - managers and employees from the IT sector

Source: authors' research and calculations

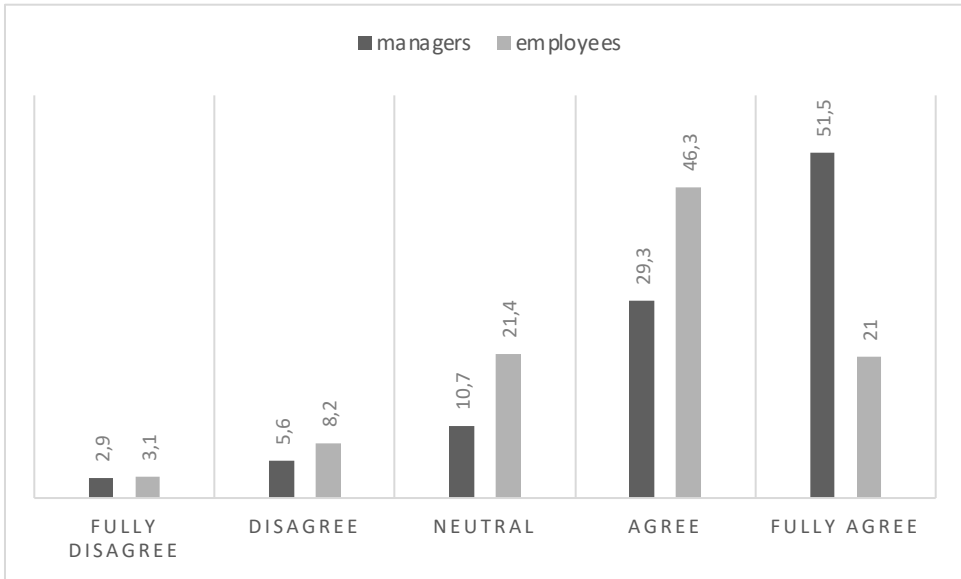


Figure 5. The impact of managers' leadership behaviour on the performance of companies in the IT sector

Source: authors' research and calculations

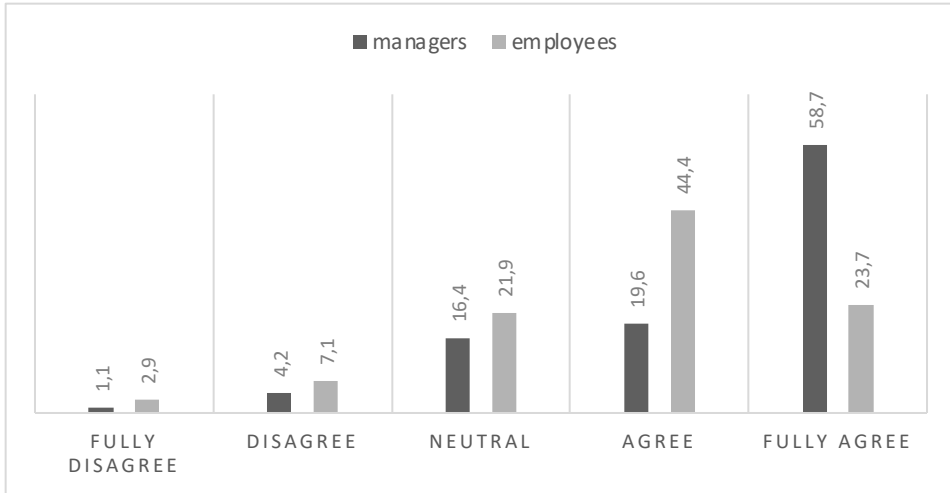


Figure 6. Influence of managers' leadership behaviour on the success of companies in the IT sector

Source: authors' research and calculations

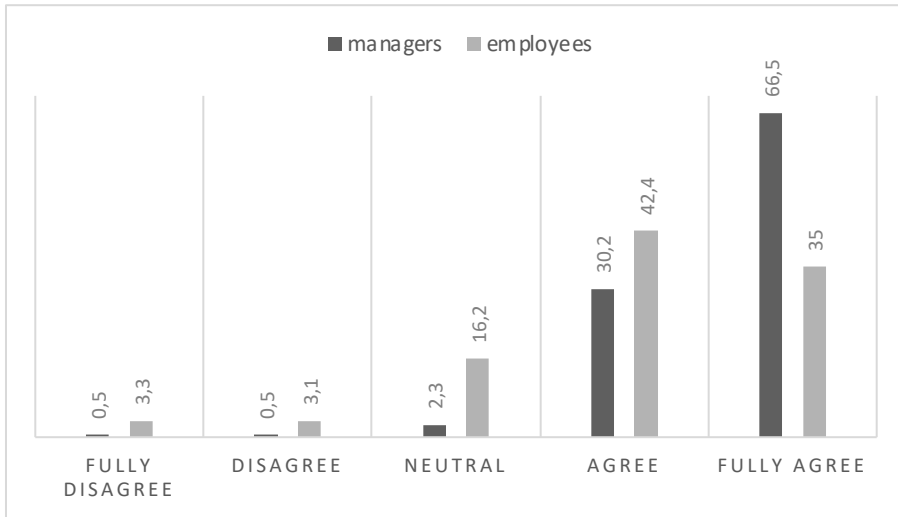


Figure 7. Influence of manager's leadership behaviour on the achievement of personal goals of employees in the IT sector

Source: authors' research and calculations

companies' success and the achievement of personal goals of IT-sector employees (see Figures 4; 5; 6; 7).

It can be seen that the overwhelming majority of responses regarding the impact of the manager's leadership behaviour on job satisfaction for both groups were in the "agree" and "fully agree" range. It is found that for managers the proportion giving these responses is significantly higher than that of employees. (see Figure 5)

Employees overwhelmingly expressed "agreement," "neutrality," and "full agreement" about the impact of the manager's leadership behaviour on company performance. Managers' responses of "fully agree" and "agree" were of the highest share, significantly higher as compared to employees' responses. (see Figure 6)

In terms of the impact of the manager's leadership behaviour on the success of the

companies, in the group of managers the answers "fully agree" prevail, and in the group of employees the answers "agree" prevail, and in both groups these answers in total have the largest share. The same is valid for the responses concerning the impact of the manager's leadership behavior on the achievement of the personal goals of IT-sector employees. (see Figure 7)

The reliability of the various statements regarding the manager's leadership behaviour was tested by applying Cronbach's Alpha test. This indicator reflects the internal consistency among the statements/questions. The closer it is to 1, the higher the consistency (i.e. internal reliability). For this purpose, each leadership's behaviour of managers was coded and the reliability of each was analyzed. (see Table 1 and Table 2).

Table 1. Coded statements regarding the manager's leadership behaviour

Statements	Code
The manager continuously collaborates with employees in the work process	L1
The leader has a clear vision and objectives for the development of the organization	L2
The manager effectively motivates employees	L3
The manager has the ability to persuade employees to achieve organizational goals	L4
The manager is constantly self-training and self-improving	L5
The manager has a positive impact on employees in the organization	L6
The manager takes into consideration time and corporate culture when interacting with followers	L7
The manager changes his managerial style depending on the situation	L8

Source: authors' research and calculations

Table 2. Coded statements regarding the manager's leadership behaviour

Statements	Cronbach's Alpha Value if item is deleted	Total Cronbach's Alpha value
L1	0.82	0.86
L2	0.85	
L3	0.79	
L4	0.81	
L5	0.84	
L6	0.83	
L7	0.81	
L8	0.85	

Source: authors' research and calculations

From the obtained results presented in Table 2, the overall Cronbach's Alpha value is 0.86. This value is higher than the required value of 0.7, hence the statements are reliable with regard to the study of the relationship between the parameters related to the manager's leadership behaviour. The value of each of the variables is less than or equal to the overall value of Cronbach's Alpha, therefore eliminating each of the statements would decrease the reliability of the model and the results of the analysis. The next aspect

of the study is to comparatively analyse the views of managers and employees in the IT sector on the impact of managerial leadership behaviour on the success of HRM strategies and policies of organisations in the IT sector. For this purpose, the following hypotheses were defined:

H0: there is no statistically significant difference in the estimations of managers and employees in the IT sector on the impact of managerial leadership behaviour on the success

Table 3. Descriptive analysis of the manager's leadership behaviour

Group Statistics					
A group of respondents		Number	Mean	Std. Deviation	Std. Error Mean
L1	employees	150	2.74	1.07	0.09
	managers	150	3.41	1.22	0.07
L2	employees	150	3.61	0.86	0.07
	managers	150	4.09	0.94	0.06
L3	employees	150	2.79	0.95	0.07
	managers	150	3.70	0.92	0.07
L4	employees	150	3.26	0.90	0.07
	managers	150	3.98	0.92	0.06
L5	employees	150	3.19	1.34	0.08
	managers	150	4.01	1.11	0.09
L6	employees	150	3.80	0.74	0.06
	managers	150	4.14	0.80	0.05
L7	employees	150	4.61	0.60	0.05
	managers	150	4.55	0.77	0.04
L8	employees	335	3.71	1.33	0.06
	managers	105	4.31	0.86	0.10

Source: authors' research and calculations

of organisations' HRM strategies and policies.

H1: there is a statistically significant difference in the estimations of managers and employees in the IT sector on the impact of managerial leadership behaviour on the success of organisations' HRM strategies and policies.

The results of the analysis of the manager's leadership behaviour are presented in Table 3. (see Table 3).

From the data in Table 3, it is evident that the calculated mean values of all the variables related to leadership behaviour of the manager except L7 are higher for the group of managers, i.e. these factors have greater effect or importance for the managers in the IT sector. The standard deviation values

indicate that the responses regarding the impact of managers' leadership behaviour on the success of organizations' HRM strategies and policies range between disagreement and agreement for managers and neutral to full agreement for employees. The value of the standard error for each variable is close to 0, i.e. the estimation is reliable and accurate and there is little bias in the results.

In addition, to test the statistical significance of these results, Levene's Test and T-Test were applied (see Table 4). The Levene's Test is used to test the hypothesis, "The variances of the distributions of the test variable in the different groups are equal." The plausibility of this hypothesis is determined according to the magnitude of Significance. If the value does not exceed 0.05, it means that the probability

of falsely rejecting the null hypothesis is less than 5% (i.e. it is below the acceptable level at a 95% confidence interval). In this case the null hypothesis can be rejected, i.e. it is false. The t-test tests the correctness of the hypothesis: "The mean values of the two

groups are equal". The correctness of this hypothesis is tested depending on the values of the Significance (2-tailed) indicator. If this value is less than 0.05 it is assumed that the null hypothesis can be rejected.

Table 4. Results of Levene's test and t-test

		Levene's test		t-test						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
L1	Equal variances assumed	8.01	0.00	-6.10	398.00	0.00	-0.70	0.11	-0.93	-0.47
	Equal variances not assumed			-6.10	388.06	0.00	-0.70	0.11	-0.93	-0.47
L2	Equal variances assumed	0.14	0.71	-5.22	398.00	0.00	-0.47	0.09	-0.65	-0.29
	Equal variances not assumed			-5.22	390.94	0.00	-0.47	0.09	-0.65	-0.29
L3	Equal variances assumed	0.64	0.42	-8.83	398.00	0.00	-0.83	0.09	-1.01	-0.64
	Equal variances not assumed			-8.83	397.74	0.00	-0.83	0.09	-1.01	-0.64
L4	Equal variances assumed	0.03	0.87	-7.38	398.00	0.00	-0.67	0.09	-0.85	-0.49
	Equal variances not assumed			-7.38	397.15	0.00	-0.67	0.09	-0.85	-0.49
L5	Equal variances assumed	220.67	0.00	-6.28	398.00	0.00	-0.77	0.12	-1.00	-0.53
	Equal variances not assumed			-6.28	384.65	0.00	-0.77	0.12	-1.00	-0.53
L6	Equal variances assumed	3.67	0.06	-3.31	398.00	0.00	-0.26	0.08	-0.41	-0.11
	Equal variances not assumed			-3.31	395.59	0.00	-0.26	0.08	-0.41	-0.11
L7	Equal variances assumed	2.66	0.10	0.51	398.00	0.61	0.04	0.07	-0.10	0.17
	Equal variances not assumed			0.51	378.16	0.61	0.04	0.07	-0.10	0.17

		Levene's test		t-test						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
L8	Equal variances assumed	32.88	0.00	-4.96	398.00	0.00	-0.56	0.11	-0.78	-0.34
	Equal variances not assumed			-4.96	335.56	0.00	-0.56	0.11	-0.78	-0.34

Source: authors' research and calculations

From the Levene's test data in Table 4, it can be seen that the significance is greater than 0.05 for L2, L3, L4, L6 and L7. Therefore, with respect to these statements, the null hypothesis is accepted and the assumption of equality in variances across the two groups of respondents is confirmed. Thus, it is found that there are no statistically significant differences in the opinions of managers on the one hand, and IT employees, on the other hand, for these statements. For L1, L5 and L8, the significance is less than 0.05, indicating that the null hypothesis can be rejected, i.e. according to the results of Levene's test, there are statistically significant differences in the opinions of the two groups of respondents regarding statements L1, L5 and L8.

In the t-test, for all statements except L7, the value of Significance (2-tailed) is less than 0.05, therefore the null hypothesis can be rejected, i.e. the mean values are not equal. It can be concluded that the difference between the mean level of the opinions of the two groups of respondents regarding the influence of the manager's leadership behaviour is statistically significant. For L7, the value of Significance (2-tailed) is greater than 0.05, at which the null hypothesis cannot be rejected. Therefore, it can be assumed that the mean values are equal, so the difference between the mean level of the opinions of the two

groups of respondents on L7 is statistically insignificant.

5. Conclusion

The research carried out in this paper provides grounds to formulate the following summary conclusions:

1. The socio-economic development in the late 20th century and the early decades of the 21st century is characterized by major and accelerated scientific discoveries, technological innovations and social transformations. These processes are to a very large extent based on the increasing opportunities provided by the rapid advances and outstanding achievements of information technology. The information economy is developing in parallel with the information industry sector, as well as with the processes of globalisation and integration. The ever-increasing need to create, disseminate, provide the access to and use of information is also leading to an increasingly dynamic IT sector.
2. The availability of information resources, modern information technologies and means of communication, as well as the availability of information infrastructure to provide opportunities for more efficient solution of social, economic and scientific-technical tasks is becoming a major factor

of human development. IT underpins Europe's digital revolution, innovation and the competitiveness of the knowledge economy. They contribute to the emergence and functioning of the information society, leading to an improvement in the quality of people's lives and their inclusion in society. The share of the IT sector in the European economy has almost quadrupled over the last decade.

3. In the last decade, the IT sector of the Bulgarian economy has been developing at a rapid pace. There has been a significant and steady increase in revenues from the activity, with a very large part of them coming from exports. There is a steady trend of increasing share of the IT sector in the country's GDP. IT companies are forecast to double their revenues by 2025 and their share of GDP, accompanied by a substantial increase in the number of employees. The industry is characterised by generation of a high added value and the level of labour productivity is 4 times higher than the average for the Bulgarian economy.
4. The processes of accelerated development of the IT sector also lead to significant changes in the quantity as well as in the structural and qualitative characteristics of the required human resources. At the same time, the labour market is not able to provide sufficient staff both in terms of quantity and quality. This is a real current problem, the solution of which is not expected in the medium or even long term. The shortage of sufficient and appropriate human resources largely limits the development prospects of the sector in the country.
5. In this situation, it becomes imperative for companies and employers to seek and implement new approaches and relevant strategies and policies for human resource management in the IT sector. A key role in the success of human resource management strategies and policies in the IT sector is played by the manager with his leadership behaviour, which is formed by the leadership qualities possessed and the leadership style applied in the process of working with employees.
6. The majority of IT workers are young people aged under 45. No significant differences in the age and age structure of managers and employees were found. Bulgaria ranks among the top in Europe in terms of the relative share of women employed in IT companies, with both groups of respondents accounting for approximately one third. The data on the educational structure of the two groups of respondents according to the level of education allow us to establish that a very large proportion of those working in the sector are with a higher education and higher degrees, with 97% of managers and 84.6% of employees.
7. The results of the descriptive analysis on the impact of managerial leadership behaviour on job satisfaction, company performance, company success, and the achievement of personal goals of employees in IT sector show that the opinions of both groups of respondents in each of these areas are predominantly in the "agree" and "fully agree" range. At the same time, the relative proportion of the group of managers giving answers in this range is higher than that of the group of employees.
8. An examination of the reliability of the statements formulated regarding each leadership behaviour of the manager

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indicates that: the statements are reliable with respect to examining the relationship between the parameters associated with these factors; eliminating any of the statements would reduce the reliability of the model and the results of the analysis.

9. The leadership behaviour of the manager has a greater effect and significance in terms of the successful implementation of the organisations' HRM strategies and policies for the respondents in the manager group, and the assessment is reliable and accurate, with little variance in the results.
10. The researched characteristics of the managerial leadership behavior in HRM in the IT sector are evaluated as important. Their development and implementation in practice by managers will lead to improvement of the HRM process and the performance of the IT companies.
11. For statements L2, L3, L4, L6 and L7 there were no statistically significant differences in the opinions of the two groups of respondents, while for statements L1, L5 and L8 these differences were significant. For each of the statements on leadership behaviour of the manager, except for L7, there was a statistically significant difference between the mean level of opinions of the two groups of respondents.
12. The implementation of the leadership approach of managers is essential in human resource management in the IT sector. Continuous training, support and provision of tools to managers contribute decisively to increasing their effectiveness. In a constantly changing world, a manager who has leadership skills and applies a leadership approach becomes a person who can inspire, unite and lead the team to a better future.

It is important to point out that the present study is limited in terms of: time, as it was realized once in a specific period of time; the volume and scope of the sample, which does not claim to be representative. The potential directions for future research are related to: research on the main approaches to motivating employees that leaders use and their impact on human resource management in the IT sector; carrying out the research in successive periods of time in order to establish and track the dynamics in the opinions and attitudes of the respondents.

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