

Marijana Cvetanoska

Faculty of Economics Skopje,
University "Ss. Cyril and
Methodius" in Skopje,
North Macedonia

✉ marijana.cvetanoska@eccf.ukim.edu.mk

Predrag Trpeski

Faculty of Economics Skopje,
University "Ss. Cyril and
Methodius" in Skopje,
North Macedonia

✉ predrag.trpeski@eccf.ukim.edu.mk

Andrijana Ristovska

National Bank of the Republic
of North Macedonia,
Skopje,
North Macedonia

✉ RistovskaA@nbrm.mk

FACTORS INFLUENCING JOB SATISFACTION AND HUMAN CAPITAL DEVELOPMENT AMONG HIGHER EDUCATION EMPLOYEES IN NORTH MACEDONIA

ФАКТОРИ КОЈИ УТИЧУ НА ЗАДОВОЉСТВО ПОСЛОМ И РАЗВОЈ ЉУДСКОГ КАПИТАЛА МЕЃУ ЗАПОСЛЕНИМ У ВИСОКОМ ОБРАЗОВАЊУ У СЕВЕРНОЈ МАКЕДОНИЈИ

Summary: Employee job satisfaction and the continuous development of knowledge, skills, and abilities are essential for retaining talent in higher education institutions. This paper examines the factors influencing job satisfaction and those contributing to human capital development among higher education employees in North Macedonia. Based on a sample of 120 employees from diverse academic fields, roles, and levels of experience, the study identifies key determinants of job satisfaction, including institutional recognition and respect, salary, autonomy, and managerial support in fostering a healthy work environment. Regarding human capital development, the most influential factors include work-life balance, opportunities for professional growth, and financial resources provided by the institution. Additionally, the study explores employees' perspectives on artificial intelligence (AI) in academia, highlighting its perceived positive impact on teaching and research. However, findings indicate that faculties in North Macedonia allocate insufficient resources for AI training and integration. The study emphasizes the need for strategic investment in employee development and technological support to enhance academic performance and job satisfaction.

Keywords: AI, higher education, human capital development, job satisfaction, North Macedonia

JEL Classification: I23, I25, O15

Резиме: Задовољство послом запослених и континуирани развој знања, вештина и способности су неопходни за задржавање талената у високошколским установама. Овај рад истражује факторе који утичу на задовољство послом и оне који доприносе развоју људског капитала међу запосленима у високом образовању у Северној Македонији. На основу узорка од 120 запослених из различитих академских области, улога и нивоа искуства, студија идентификује кључне детерминанте задовољства послом, укључујући институционално признање и поштовање, плату, аутономију и менаџерску подршку унегавању здравог радног окружења. Што се тиче развоја људског капитала, најутицајнији фактори су равнотежа између пословног и приватног живота, могућности за професионални раст и финансијска средства која институција обезбеђује. Поред тога, студија истражује перспективе запослених о вештачкој интелигенцији (AI) у академским круговима, наглашавајући њен уочени позитиван утицај на наставу и истраживање. Међутим, налази указују да факултети у Северној Македонији издвајају недовољне ресурсе за обуку и интеграцију вештачке интелигенције. Студија наглашава потребу за стратешким улагањем у развој запослених и технолошку подршку како би се побољшао академски учинак и задовољство послом.

Кључне ријечи: вештачка интелигенција, високо образовање, развој људског капитала, задовољство послом, Северна Македонија

ЈЕЛ касификација: I23, I25, O15

Paper presented at the 14th International Scientific Conference "Jahorina Business Forum 2025:
Industry 4.0 - Challenges in Management, Digital Trends and Use of Artificial Intelligence"

INTRODUCTION

In today's dynamic and competitive global environment, the success of organizations and institutions largely depends on their ability to adapt to constant changes and challenges. One of the key determinants of an organization's success is the motivation and engagement of its workforce. Motivated employees contribute to higher productivity and better performance. Therefore, understanding the factors that drive employee motivation has become a crucial aspect of modern strategic practices.

In the modern knowledge-based economy, human capital development has become a crucial element for organizations aiming to maintain competitiveness and ensure sustainable growth. Higher education institutions, in particular, rely heavily on the skills, expertise, and motivation of their academic staff. Effective human resource management (HRM) practices are essential for attracting, retaining, and developing talented professionals in this sector.

Human capital development encompasses a broad range of factors that contribute to improving employees' capabilities, performance, and commitment. Motivation, training, empowerment, teamwork, and a positive organizational culture are among the most critical aspects influencing human capital development.

While numerous studies have explored the role of job satisfaction in employee performance, empirical research on human capital development in the higher education sector, particularly in developing countries such as North Macedonia, remains limited. To effectively fulfill their responsibilities in teaching, research, and community engagement, universities require a well-qualified and highly motivated academic staff. Public higher education institutions often face challenges such as inadequate financial incentives, lack of career growth opportunities, and bureaucratic inefficiencies that may lead to employee dissatisfaction and reduced motivation (Mahazril et al. 2012).

This paper aims to address the following key research questions:

- *What are the key factors influencing job satisfaction among higher education employees in North Macedonia?*
- *What are the primary drivers of human capital development among higher education employees in North Macedonia?*
- *What strategies can be implemented to enhance job satisfaction and foster human capital development within the higher education sector?*

Job satisfaction and human capital development are critical factors influencing the success and sustainability of higher education institutions. Understanding the needs and expectations of academic staff is essential for fostering a positive work environment, improving job satisfaction, and enhancing institutional performance. By implementing effective HRM strategies - such as continuous professional development, empowerment initiatives, and incentive programs - higher education institutions can create a more motivated and committed workforce, ultimately contributing to long-term growth and success.

The paper is structured as follows: following the introduction, the second section offers a literature review on the factors influencing job satisfaction and human capital development, also in the context of higher education. The third section details the research methodology, including the sampling process and the quantitative analysis of the survey data. The fourth section presents the results and findings, focusing on job satisfaction and human capital development within higher education institutions. Finally, the conclusion synthesizes the key insights and provides actionable recommendations for enhancing employee motivation and retention in the higher education sector.

1. LITERATURE REVIEW

Human capital development and job satisfaction are essential in shaping organizational outcomes, influencing both employee behavior and organizational productivity. Numerous theoretical frameworks have been developed to explain the determinants of job satisfaction, with Frederick Herzberg's (1959) Two-Factor Theory being one of the most influential. Herzberg's theory distinguishes between hygiene factors (e.g., salary, working conditions) and motivational factors (e.g., achievement, recognition), arguing that while hygiene factors prevent dissatisfaction, motivational factors are the key drivers of job satisfaction.

The relationship between economic factors and job satisfaction has been well documented. Blanes i Vidal and Nossol (2011) found that wages, opportunities for advancement, and managerial practices are critical in fostering job satisfaction. Their research indicates that employees' sense of satisfaction and motivation is strongly linked to the recognition of their efforts and the opportunities they receive for professional growth. Markham et al. (2002) and Kosfeld et al. (2017) further emphasize the importance of formal recognition programs (e.g., employee-of-the-month awards) in motivating employees and enhancing job satisfaction. These recognition practices contribute to a

positive work environment, reinforcing Herzberg's view that meaningful work and acknowledgment are essential for maintaining job satisfaction.

In addition to financial and recognition factors, workplace conditions significantly influence employee motivation and job satisfaction. Study by Mudor and Tooksoon (2011) identifies factors such as work schedules (fixed vs. flexible), teamwork, feedback, supervision, and training as important predictors of job satisfaction. Mudor and Tooksoon (2011) emphasize that a supportive work environment fosters higher engagement, leading to increased productivity and reduced absenteeism. Conversely, a lack of motivation can result in organizational inefficiencies such as high turnover rates and disengagement, suggesting the need for comprehensive strategies to enhance workplace conditions.

Empirical research has substantiated the link between motivation and job performance. Grant et al. (2008) conducted a field study on fundraising agents, demonstrating that enhancing employees' perception of task significance could double their productivity. This finding underscores the role of meaningful work and engagement in improving organizational performance. Hee et al. (2019) extended Herzberg's theory to the higher education sector, identifying both hygiene factors (e.g., salary, supervision) and motivators (e.g., recognition, career growth) as critical influences on job satisfaction among faculty members in Malaysian universities. They concluded that addressing these factors is vital for ensuring the quality of education and promoting positive student outcomes.

Research also explores job satisfaction in specific professions. Szromek and Wolniak (2020) investigated the satisfaction of researchers in Poland, revealing that their job satisfaction was influenced by employment conditions, the societal relevance of their research, and academic opportunities. Notably, satisfaction levels were higher when researchers focused on academic and didactic tasks, while administrative duties were seen as a detractor. This highlights the importance of aligning job roles with employees' intrinsic motivations and passions to enhance satisfaction.

Leadership also plays a crucial role in employee motivation. Hitka et al. (2019) explored the relationship between career aspirations and motivation factors, highlighting the role of innovative leadership in motivating highly educated employees. Their findings reveal a significant correlation between motivation and career expectations, suggesting that career aspirations are shaped by the leadership practices and the opportunities employees perceive in their roles.

Rezaei et al. (2021) examined the impact of knowledge management on organizational performance, finding that organizational structure, culture, leadership, and trust were the most significant predictors of effective knowledge management, which in turn boosted performance. Their study underscores the importance of optimizing human capital and organizational resources to maintain competitiveness.

Selesho and Naile (2014) focused on the retention of academic staff in South African universities, revealing that job satisfaction, career development, and academic opportunities were the primary drivers of retention. Poor working conditions, inadequate mentoring, and unclear promotion guidelines were identified as significant barriers. This highlights the need for universities to foster environments that promote career growth and employee satisfaction.

Further exploration into the role of Human Capital Management (HCM) in educational institutions is provided by Bucăța and Tileaga (2023). Their study stresses the importance of strategic HCM in universities to attract and retain skilled staff. A positive work environment, professional development opportunities, and competitive remuneration were identified as key factors in improving academic staff retention and enhancing university performance. Aligning institutional goals with employees' needs can create a mutually beneficial dynamic, improving satisfaction and overall institutional effectiveness.

Lentjushenkova (2021) explores the factors influencing human capital development in higher education institutions (HEIs), emphasizing its critical role in institutional performance. Findings highlight that pedagogical and scientific competence of academic staff, industry professionals' involvement, and motivation are central to human capital development. Additionally, four primary influencing factors emerge: staff competence and motivation, legislation and strategic development, resource availability, and cooperation. These insights underscore the need for strategic investments in human capital to enhance competitiveness and institutional effectiveness in higher education.

About attitudes towards artificial intelligence, Vasiljeva, et. al (2021) emphasize that top management's attitude, competition, and regulations are primary drivers of AI adoption within organizations. They also note that attitudes toward AI vary significantly across industries, with a distinct divide between organizations that have implemented AI and those that have not.

Organizational commitment, competitive pressures, and regulatory factors are crucial in shaping AI integration. Complementing this, Dabbous, et al. (2022) focus on individual employees' intentions to use AI, identifying organizational culture, habit, job insecurity, perceived self-image, and perceived usefulness as key factors. Their findings reveal that positive organizational culture and habit enhance employees' intention to use AI, while job insecurity negatively impacts it. Moreover, perceived self-image and perceived usefulness mediate the relationships between job insecurity, habit, and AI adoption. Together, these studies underscore the importance of both organizational-level factors and individual perceptions in driving successful AI integration.

2. METHODOLOGY AND DATA

The aim of this paper is to evaluate the impact of several factors — such as recognition and respect, salary, autonomy, support from faculty management, work-life balance and support for professional development financial resources for professional development — on job satisfaction and human capital development among employees in higher education institutions in North Macedonia. Furthermore, the paper seeks to explore employees' attitudes toward the integration of artificial intelligence (AI) in academic work, including its perceived positive effects on teaching processes, as well as the availability of training and resources for AI implementation within these institutions.

To investigate the factors influencing job satisfaction and human capital development among higher education employees in North Macedonia, this study formulates and tests several hypotheses. These hypotheses explore the relationships between the independent variables (recognition and respect, salary, autonomy, support from faculty management, work-life balance and support for professional development financial resources for professional development) and the dependent variables (job satisfaction and human capital development). Additionally, the study examines the extent to which institutions invest in artificial intelligence (AI) training and integration. The hypotheses are structured into three main categories: job satisfaction, human capital development, and AI integration in academia.

2.1. Hypotheses on Job Satisfaction

The following hypotheses examine how different workplace factors influence employees' overall job satisfaction:

- *H₀₁: There is no significant relationship between recognition and respect for employees' work by the institution and their job satisfaction in higher education institutions in North Macedonia.*
- *H₁₁: There is a significant positive relationship between recognition and respect for employees' work by the institution and their job satisfaction in higher education institutions in North Macedonia.*
-
- *H₀₂: There is no significant relationship between salary and job satisfaction in higher education institutions in North Macedonia.*
- *H₁₂: There is a significant positive relationship between salary and job satisfaction in higher education institutions in North Macedonia.*
-
- *H₀₃: There is no significant relationship between the level of autonomy employees have in their work and their job satisfaction in higher education institutions in North Macedonia.*
- *H₁₃: There is a significant positive relationship between the level of autonomy employees have in their work and their job satisfaction in higher education institutions in North Macedonia.*
-
- *H₀₄: There is no significant relationship between the support from faculty management in fostering a healthy working environment and job satisfaction in higher education institutions in North Macedonia.*
- *H₁₄: There is a significant positive relationship between the support from faculty management in fostering a healthy working environment and job satisfaction in higher education institutions in North Macedonia.*

2.2. Hypotheses on Human Capital Development

The next set of hypotheses investigate factors that influence the development of employees' knowledge, skills, and abilities:

- *H₀₅: There is no significant relationship between the work-life balance and human capital development in higher education institutions in North Macedonia.*
- *H₁₅: There is a significant positive relationship between work-life balance and human capital development in higher education institutions in North Macedonia.*
- *H₀₆: There is no significant relationship between the support for professional development and human capital development in higher education institutions in North Macedonia.*
- *H₁₆: There is a significant positive relationship between the support for professional development and human capital development in higher education institutions in North Macedonia.*
- *H₀₇: There is no significant relationship between the financial resources provided by the institution for professional development and human capital development in higher education institutions in North Macedonia.*
- *H₁₇: There is a significant positive relationship between the financial resources provided by the institution for professional development and human capital development in higher education institutions in North Macedonia.*

2.3. Hypotheses on AI Integration in Academia

The final hypothesis assesses the extent to which higher education institutions in North Macedonia allocate resources for AI training and implementation:

- *H₀₈: Faculties in higher education institutions in North Macedonia do not allocate sufficient resources for the training and integration of artificial intelligence into academic work and teaching.*
- *H₁₈: Faculties in higher education institutions in North Macedonia allocate sufficient resources for the training and integration of artificial intelligence into academic work and teaching.*

For the purposes of this paper, a questionnaire was administered to gather respondents' opinions and answers. Besides questions on factors influencing job satisfaction and human capital development, the questionnaire included demographic questions and questions about respondents' roles, level of experience in higher education institutions, and academic fields. Respondents rated the importance of the analyzed factors. Additionally, the questionnaire addressed employees' attitudes toward the application of artificial intelligence (AI) in academic work, its perceived positive impact on teaching processes, and the availability of training and resources for AI implementation in these institutions.

The target group consisted of professors, assistant professors, research fellows, and other employees in higher education institutions in North Macedonia, with a sample size of 120 respondents from various academic fields and with different lengths of service. This sample size and variety offer a comprehensive reflection of the phenomenon being studied.

The paper used simple linear regression and correlation analyses to examine the relationships between these factors and their impact on job satisfaction and human capital development. A descriptive analysis was also conducted to assess whether faculties in higher education institutions in North Macedonia allocate sufficient resources for training and integrating artificial intelligence (AI) into academic work and teaching. Data collection and analysis were conducted through an electronic survey service, Kwik Surveys.

3. RESULTS AND FINDINGS

The findings indicate strong positive relationships between job satisfaction and key organizational factors (Table 1). Recognition and respect for employees ($r = 0.65$, $\beta = 0.52$, $p < 0.001$) significantly enhance job satisfaction, while salary ($r = 0.58$, $\beta = 0.45$, $p < 0.01$) and autonomy ($r = 0.62$, $\beta = 0.50$, $p < 0.001$) also contribute substantially. Faculty management support ($r = 0.67$, $\beta = 0.55$, $p < 0.001$) is the strongest predictor of job satisfaction, emphasizing the importance of leadership.

Table 1. Pearson Correlation Results for Job Satisfaction

Independent Variable	Dependent Variable	Pearson r	p-value
Recognition and Respect	Job Satisfaction	0.65	0.0
Salary	Job Satisfaction	0.58	0.001
Autonomy	Job Satisfaction	0.62	0.0
Support from Faculty Management	Job Satisfaction	0.67	0.0

Source: Authors' calculation based on SPSS Analysis, 2025

Regarding human capital development (Table 2), work-life balance ($r = 0.55$, $\beta = 0.40$, $p < 0.01$) positively influences employees' ability to develop skills. Institutional support for professional growth ($r = 0.60$, $\beta = 0.47$, $p < 0.01$) and financial resources for training ($r = 0.53$, $\beta = 0.39$, $p < 0.01$) also play crucial roles.

Table 2. Pearson Correlation Results for Human Capital Development

Independent Variable	Dependent Variable	Pearson r	p-value
Work-Life Balance	Human Capital Development	0.55	0.002
Support for Professional Development	Human Capital Development	0.6	0.001
Financial Resources for Professional Development	Human Capital Development	0.53	0.003

Source: Authors' calculation based on SPSS Analysis, 2025

The linear regression analysis (Table 3) shows that all analyzed factors have a statistically significant and positive impact on job satisfaction, with *support from faculty management* ($\beta = 0.55$, $R^2 = 0.45$) having the strongest influence, explaining 45% of the variance. *Recognition and Respect* ($\beta = 0.52$, $R^2 = 0.42$) also contributes significantly, accounting for 42% of the variance. *Autonomy* ($\beta = 0.50$, $R^2 = 0.38$) has a slightly lower but still significant impact, while *salary* ($\beta = 0.45$, $R^2 = 0.36$) has the weakest effect, explaining 36% of the variance in job satisfaction. Although all factors are important, the results indicate that support from faculty management and recognition and respect are the key predictors of satisfaction, whereas salary has the least impact, suggesting that financial compensation is not the most decisive factor for academic staff.

Table 3. Simple Linear Regression Results for Job Satisfaction

Independent Variable	Dependent Variable	Beta Coefficient (β)	p-value	R^2
Recognition and Respect	Job Satisfaction	0.52	0.0	0.42
Salary	Job Satisfaction	0.45	0.002	0.36
Autonomy	Job Satisfaction	0.5	0.0	0.38
Support from Faculty Management	Job Satisfaction	0.55	0.0	0.45

Source: Authors' calculation baes on SPSS Analysis, 2025

Table 4 indicates that all factors examined have a statistically significant and positive impact on human capital development. *Support for professional development* ($\beta = 0.47$, $R^2 = 0.34$) has the strongest influence, explaining 34% of the variance. *Work-Life balance* ($\beta = 0.40$, $R^2 = 0.30$) also plays an important role, accounting for 30% of the variance. *Financial resources for professional development* ($\beta = 0.39$, $R^2 = 0.28$) has the weakest but still significant effect, explaining 28% of the variance in human capital development. These findings suggest that professional development support is the most crucial factor, while financial resources, though relevant, have a comparatively lower impact.

Table 4. Simple Linear Regression Results for Human Capital Development

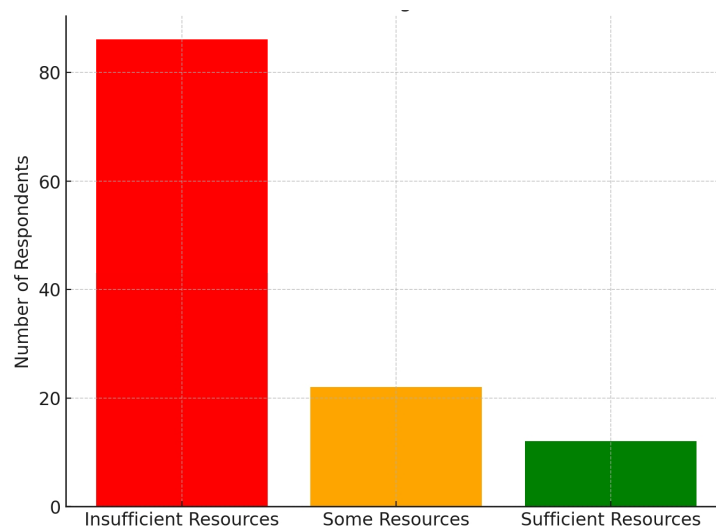
Independent Variable	Dependent Variable	Beta Coefficient (β)	p-value	R ²
Work-Life Balance	Human Capital Development	0.4	0.003	0.3
Support for Professional Development	Human Capital Development	0.47	0.002	0.34
Financial Resources for Professional Development	Human Capital Development	0.39	0.005	0.28

Source: Authors' calculation baes on SPSS Analysis, 2025

The descriptive analysis of AI resource allocation and the results from 120 participants indicate that:

- 72% (86 respondents) reported that their institutions do not allocate sufficient resources for AI training and integration.
- 18% (22 respondents) stated that their institutions provide some resources but not at a sufficient level.
- 10% (12 respondents) indicated that their institutions allocate sufficient resources for AI training and integration.

Figure 1. AI Resource Allocation in HEIs in North Macedonia



Source: Authors' calculations

Given that the majority of respondents believe their institutions do not provide adequate resources for AI training and integration, the null hypothesis (H_0) is accepted, and the alternative hypothesis (H_1) is rejected. This suggests that faculties in higher education institutions in North Macedonia currently are not investing enough in AI-related academic initiatives.

CONCLUSION

The results of the study highlight the key factors influencing job satisfaction and human capital development in higher education institutions (HEIs) in North Macedonia. Recognition and respect, autonomy, salary, and support from faculty management were found to have a significant positive impact on job satisfaction, with support from faculty management having the strongest influence. This suggests that creating a supportive academic environment is essential for improving faculty satisfaction. Similarly, work-life balance, support for professional development, and financial resources for professional development were identified as critical determinants of human capital development, with support for professional development playing the most significant role. These findings indicate that while financial investment is important, structured career growth opportunities and a balanced work environment are more effective in fostering the development of human capital. Additionally, the study reveals a gap between AI's perceived potential and actual institutional investment, with most respondents reporting insufficient support for AI training and integration. Institutions must prioritize recognition, financial incentives, autonomy, and AI investment to improve academic staff engagement and institutional performance.

Our study aligns with existing literature, confirming that job satisfaction and human capital development in higher education depend on economic, managerial, and workplace factors. Herzberg's Two-Factor Theory (1959) and studies by Blanes i Vidal and Nossol (2011) and Markham et al. (2002) highlight salary, recognition, and autonomy as key drivers of job satisfaction, which our findings support. Similarly, workplace conditions, leadership, and career growth opportunities, emphasized by Mudor and Tooksoon (2011) and Hee et al. (2019), are crucial for human capital development. Regarding AI adoption, our results align with Vasiljeva et al. (2021) and Dabbous et al. (2022), confirming that leadership, organizational culture, and institutional investment are essential for AI integration. However, most respondents report insufficient AI resources, indicating that North Macedonian universities lag in AI implementation.

Therefore, HEIs in North Macedonia should prioritize professional development programs, enhance institutional support, and create an engaging academic culture to retain and motivate academic staff, ultimately improving both job satisfaction and institutional performance. To enhance job satisfaction and human capital development in North Macedonian higher education institutions, strategic policies should focus on improving institutional support, career development opportunities as well as financial incentives. Universities must implement transparent promotion structures, competitive salaries, and performance-based recognition programs to motivate employees and retain talent. Additionally, leadership should foster a supportive work culture by encouraging faculty participation in decision-making and providing mentorship programs for career growth. Investment in professional development through international collaborations, research grants, and continuous training is crucial for academic excellence. Furthermore, given the growing importance of AI in academia, institutions must allocate sufficient resources for AI training and integration, ensuring faculty members are equipped with the necessary digital skills. A holistic approach that combines financial, managerial, and technological advancements will enhance job satisfaction, improve employee retention, and strengthen the overall performance of higher education institutions in North Macedonia.

REFERENCES

- Blanes i Vidal, Jordi, and Mareike Nossol. 2011. "Tournaments without prizes: Evidence from personnel records." *Management science* 57(10): 1721-1736.
- Bucața, George, and Cosmin Tileagă. 2023. "The role of human capital in the universities' management efficiency process." *Land Forces Academy Review* 28 (2): 136-147.
- Dabbous, Amal, Karine Aoun Barakat, and May Merhej Sayegh. 2022. "Enabling organizational use of artificial intelligence: an employee perspective." *Journal of Asia Business Studies* 16 (2): 245-266.
- Grant, Adam M., Jane E. Dutton, and Brent D. Rosso. 2008. "Giving commitment: Employee support programs and the prosocial sensemaking process." *Academy of management journal* 51 (5): 898-918.
- Hee, Ong Choon, Shahariah Haris Ong, Lim Lee Ping, Tan Owee Kowang, and Goh Chin Fei. 2019. "Factors influencing job satisfaction in the higher learning institutions in Malaysia." *International Journal of Academic Research in Business and Social Sciences* 9 (2): 10-20.
- Hertzberg, Frederick, Bernard Mausner, and Barbara Snyderman. 1959. "The motivation to work." *New York*.
- Hitka, Miloš, Alžbeta Kucharčíková, Peter Štarchoň, Žaneta Balážová, Michal Lukáč, and Zdenko Stacho. 2019. "Knowledge and human capital as sustainable competitive advantage in human resource management." *Sustainability* 11 (18). doi:10.3390/su11184985
- Kosfeld, Michael, Susanne Neckermann, and Xiaolan Yang. 2017. "The effects of financial and recognition incentives across work contexts: The role of meaning." *Economic Inquiry* 55 (1): 237-247.
- Lentjushenkova, Oksana. 2021. "Human capital development at higher education institutions." *Economics and Culture* 18 (2): 5-14.
- Mahazril Aini, Yaakob, Hafizah Abdul Kadir, and Zuraini Yusof. 2012. "Factors Affecting Cooperatives' Performance in Relation to Strategic Planning and Members' Participation." *Procedia – Social and Behavioral Sciences* 65: 100–105.
- Markham, Charles E., Clinton R. Krehbiel, David R. Gill, David L. Lalman, Larry J. McBeth, and Robert L. Ball. 2002. "Effects of Fiber Source on Feedlot Performance and Carcass Characteristics of Yearling Steers." *Animal Science Research Reports*. Oklahoma Agricultural Experiment Station, Oklahoma State University.
- Mudor, Hamdia, and Tooksoon, Phadett. 2011. "Conceptual framework on the relationship between human resource management practices". *Journal of Economics and Behavioral Studies*, 2(2): 41-49
- Rezaei, Forouzan, Mohammad Khalilzadeh, and Paria Soleimani. 2021. "Factors affecting knowledge management and its effect on organizational performance: Mediating the role of human capital." *Advances in Human Computer Interaction* 2021(1). doi.org/10.1155/2021/8857572
- Selesho, Jacob M., and Idah Naile. 2014. "Academic staff retention as a human resource factor: University perspective." *International Business and Economics Research Journal* 13 (2): 295-304.
- Szromek, Adam R., and Radosław Wolniak. 2020. "Job satisfaction and problems among academic staff in higher education." *Sustainability* 12 (12). doi.org/10.3390/su12124865.
- Vasiljeva, Tatjana, Ilmars Kreituss, and Ilze Lulle. 2021. "Artificial intelligence: the attitude of the public and representatives of various industries." *Journal of Risk and Financial Management* 14 (8). doi.org/10.3390/jrfm14080339.

