



ROLE OF HRM IN FOSTERING CREATIVITY: AN APPLICATION IN IT ORGANIZATION

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Abstract:

This research paper aims to delve into the significance and role of contemporary Human Resources Management (HRM) practices in not only attracting creative individuals to the organization but also in fostering environments conducive to their work, development, and self-actualization. Understanding how to cultivate creativity at both individual and organizational levels has become crucial for every organization in the Information Technology (IT) industry. These efforts ultimately lead to gaining competitive advantages. With rapid technological advancements and the ensuing competition for talent, the challenge of attracting and retaining high-quality individuals has become increasingly prominent, compelling organizations to seek solutions from HRM. The presented case study in this paper examines the importance of creativity for IT organizations and evaluates the principal components of individual and organizational creativity through a questionnaire comprising 34 questions. The research results highlight HRM practices that contribute significantly. This paper aims to provide insights into theoretical frameworks serving as hypotheses and practical applications of identified practices. Additionally, it encourages HRM practitioners to further explore using the enclosed questionnaire.

Keywords:

Individual creativity, organizational creativity, HRM practices, IT organizations.

JEL Classification:

L1, L21, M51, O15

INTRODUCTION

With the advent of the Fourth Industrial Revolution, characterized by the integration of advanced technologies such as the Internet of Things (IoT), artificial intelligence (AI), and robotics into production processes (Schwab, 2016), IT sector has emerged as an indispensable component of both the economy and society. Business prosperity is increasingly contingent upon organizational adaptability, effectively addressing evolving needs and challenges, and acquiring human capital endowed with knowledge, creative acumen, and intrinsic motivation. In the current fiercely competitive landscape, this pursuit represents one of the foremost challenges confronting organizations (Hamel, 2007).

Article info:

Received: June 03, 2024

Correction: August 28, 2024

Accepted: September 10, 2024

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In response to the urgency arising from the contemporary business milieu, organizations allocate particular emphasis to the HRM function, tasked with overseeing the recruitment, training, appraisal, and retention of human resources. These endeavours aim to align the organization's objectives with the competencies of its workforce, thereby enhancing its competitive edge (Armstrong, 2009). Consequently, the pivotal role and significance of HRM in the present-day business landscape, particularly concerning the cultivation of creativity at both individual and organizational echelons, warrant profound recognition (Amabile, 1996; Mumford 2000). HRM faces difficulties in identifying, acquiring, assessing, and hiring candidates with the high level of necessary expertise, creative skills, and intrinsic motivation required to enable organizations to keep pace with technological developments and achieve organizational goals. These challenges stem from a highly competitive labour market characterized by high demand and insufficient supply, further complicated by significant changes brought about by the entrance of a new generation into the labour market with different lifestyles and job expectations. Thus, the challenge is not only to find candidates with the necessary individual characteristics and skills but also to make organizations appealing to candidates' needs. Even when HRM succeeds in hiring the "ideal" candidate, there remains the issue of converting candidates' potential into expected job behaviour and managing to ensure continuous development of knowledge and skills while keeping them engaged and loyal to the organization.

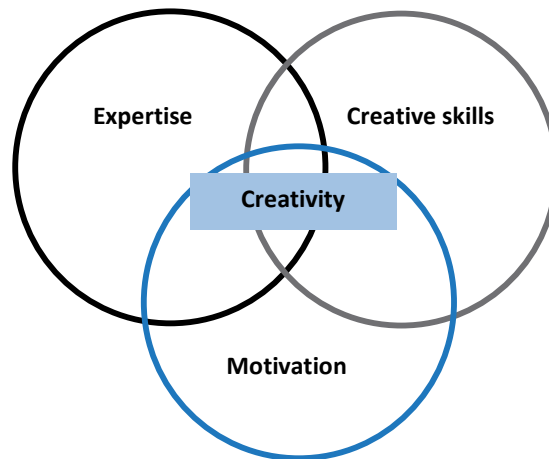
To respond to the aforementioned challenges, theoretical research is conducted to explain the concept and components of individual and organizational creativity, as well as to examine the impact of certain HRM practices in both areas through practical research using a case study. The second section explores the components of individual creativity, with the aim of understanding what is necessary for an individual to be creative. Expertise, creative skills, and task motivation represent the fundamental components of individual creativity. However, individual creativity represents creative potential, but not necessarily a creative behaviour. To transform creative potential into creative behaviour, factors in the work environment, or organizational creativity, play a significant role. The third section explains the factors influencing organizational creativity. Organizations that support creativity play a significant role in its development (George, 2008; Shalley and Gilson, 2004), with particular emphasis on challenge, freedom, resources, work group characteristics, supervisor support, and organizational backing (Amabile, 1998). The Conceptual model of organizational creativity presented in the third part outlines the fundamental categories and scales defining organizational creativity. The fourth part presents contemporary HRM practices that have been found to influence the development of creativity. In the fifth part of the paper, a case study is presented examining the role of HRM in fostering creativity in IT organizations. Results and discussion of the findings are using an online questionnaire, with employees from an IT organization in Serbia. Last section provides conclusions from the conducted theoretical and practical research and offers recommendations for further work. The final part presents the consulted literature, and an appendix with attached survey that was used in the research.



INDIVIDUAL CREATIVITY

The question arises: what characteristics, abilities, and circumstances are necessary for a person to be creative? The Componential Model of Creativity (Amabile, 1983, 1988) identifies three interconnected categories as sources of creativity: a) domain-relevant skills, b) creativity-relevant skills, and c) task motivation. Amabile (1997), enhanced the given model by redefining three significant categories – see Figure 1.

Figure 1. The Componential Model of Individual Creativity



Note: Adopted from Amabile, T. M. (1997). *Motivating creativity in organizations: On doing what you love and loving what you do*. *California Management Review*, 40.

Expertise is considered one of the most significant qualities and relates to the cognitive pathways used to solve tasks or problems. It encompasses comprehensive knowledge from various disciplines, acquired through years of learning and practical experience (Styhre and Sundgren, 2005), as well as specific talent within a particular domain of work (Amabile, 1997). Creativity-relevant skills involve personal characteristics such as self-discipline, risk-taking, tolerance for uncertainty, the ability to explore new paths and resilience to a social approval. These skills also include cognitive styles that allow individuals to perceive problems from new perspectives and apply techniques for exploring new cognitive pathways. High levels of expertise alone do not guarantee creativity; creative thinking skills are crucial and can be enhanced through learning and practice (Amabile, 1997). Task motivation, the third component, serves as the driving force behind creative activities. Intrinsic motivation, characterized by a challenge, joy, satisfaction, and interest in the work itself, is vital for creativity (George, 2007).

Creative individuals are most engaged when fundamentally motivated by these internal factors. Extrinsic motivation, such as rewards, recognition, or deadlines, can also play a role but must be balanced carefully. While extrinsic motivators can support creativity by providing general goals and resources, they can undermine intrinsic motivation if they control behaviour too rigidly (Amabile, 1997). The interplay between these components determines creative performance. Expertise and creative thinking skills influence what a person is capable of doing, while task motivation influences what they will actually do and to what extent they will engage their skills. High intrinsic motivation can compensate for a lack of expertise or creative thinking skills by driving individuals to draw from other domains or exert significant effort to master required skills (Amabile, 1997; Dewett 2007).



ORGANISATIONAL CREATIVITY

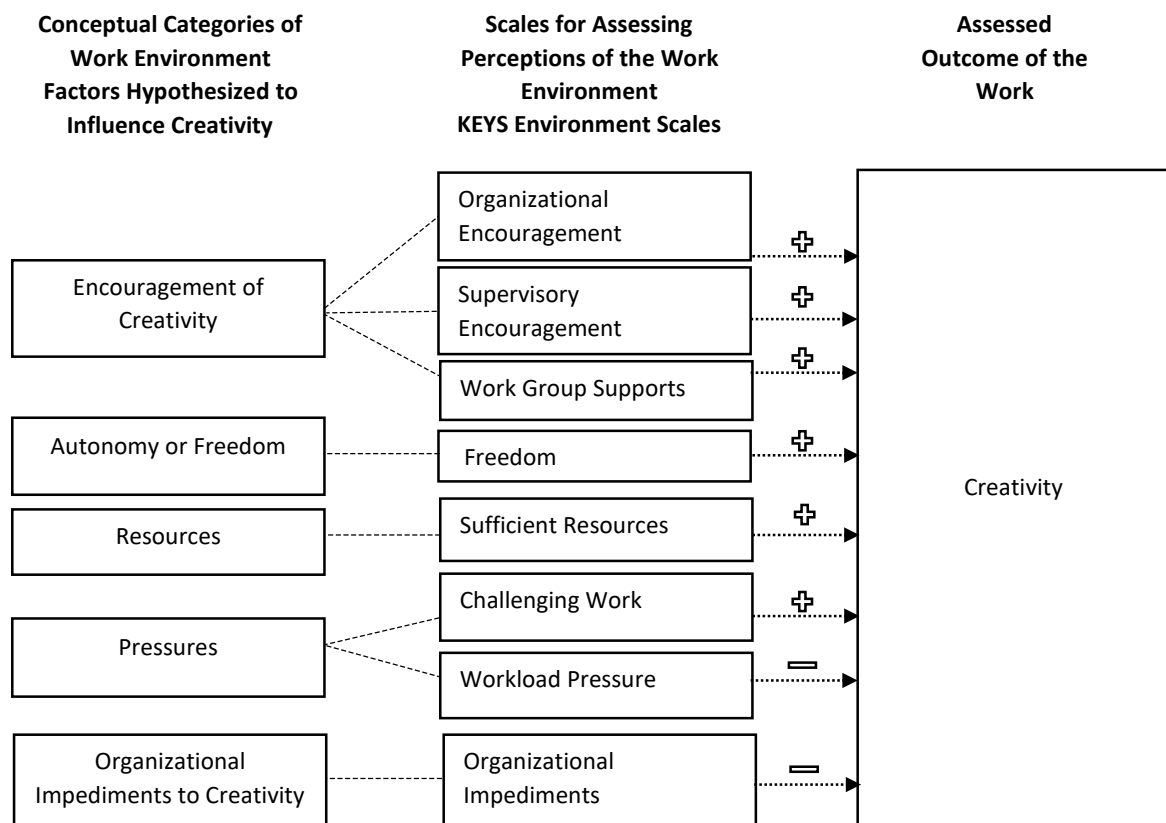
Organizational creativity is crucial for fostering innovation in business. Creativity in this context requires novelty and usefulness of ideas (Amabile, 1996). These attributes must be validated externally, as an idea deemed novel and useful by an individual may not resonate within the broader context. According to Amabile (1998), organizations that empower creative professionals play a pivotal role in nurturing creativity. These organizations cultivate creativity by providing a secure environment for experimentation, granting autonomy, offering support from supervisors and workgroups, and fostering a culture of shared vision and collaboration. Furthermore, they serve as reservoirs of valuable data and knowledge, facilitating intrinsic motivation. Creativity can be stimulated through management practices such as challenge, freedom, resources, work group characteristics, supervisor support, and organizational backing. Adequate resources and appropriate pressure are crucial; perceived sufficiency of resources and pressure from intellectual curiosity or urgency can positively influence creativity (Amabile, 1988). However, employees may possess creative potential but not exhibit creative behaviour (Runco, 2017). The psychological significance of environmental events greatly influences creative behaviour (Amabile, 1988; Woodman *et al.*, 1993).

Figure 2 illustrates a conceptual model for assessing perceptions of the work environment for creativity, identifying five key factors: encouragement of creativity, autonomy or freedom, resources, pressures, and organizational impediments. These factors are categorized into "stimulating scales" that positively affect creativity and "obstructing scales" that negatively affect creativity.

Encouragement of Creativity

Encouragement of creativity is the most frequently mentioned category (Amabile *et al.*, 1996). It occurs on three levels: organizational, supervisory, and work group.

- Organizational Encouragement fosters creativity by promoting risk-taking and the generation of new ideas (Cummings, 1965; Kanter, 1983; Dewett, 2007). Creative individuals are open to experiences and willing to experiment, which is essential for creativity and learning (Beghetto, 2018). A fair and supportive appraisal process, coupled with reward and recognition, positively influences intrinsic motivation (Amabile *et al.*, 1986; Zhou and Su, 2010). Participative management and decision-making enhance creativity by involving employees in idea sharing and discussions (Kanter, 1983; Monge *et al.*, 1992).
- Supervisory Encouragement plays a crucial role by providing clear goals, fostering open interactions, and supporting teamwork (Bailyn, 1985; Madjar *et al.*, 2002; Tierney, 2008). They help define problems and set clear goals, which are essential for creative behaviour (Carmeli and Schaubroeck, 2007; Getzels and Csikszentmihalyi, 1979; Tierney and Farmer, 2004). Open interaction reduces the fear of negative criticism, maintaining the intrinsic motivation necessary for creativity (Amabile, 1979; 1983; Zhang and Bartol, 2010a; Zhou, 2003).
- Work Group Support: A diverse team with mutual openness and constructive challenge enhances creativity (Albrecht and Hall, 1991; Madjar, Greenberg, and Chen, 2011; Monge *et al.*, 1992). Diversity introduces unconventional ideas, and constructive challenging refines these ideas (Curren *et al.*, 2001). Shared dedication to the project strengthens the team's intrinsic motivation and fosters a collaborative spirit, crucial for creative efforts (Amabile *et al.*, 1994; Thamhain, 2003).

**Figure 2.** Conceptual Model Underlying Assessment of Perceptions of the Work Environment for Creativity

Note: Adopted from Amabile et al., (1996). *Assessing the work environment for creativity*. *Academy of Management Journal*, 39(5), 1154–1184.

Autonomy or Freedom

Granting autonomy in daily work enhances creativity (Bailyn, 1985; Mathisen and Einarsen, 2004). When employees feel control over their tasks and freedom to make decisions, they are more motivated to engage deeply and take creative risks (Amabile & Mueller, 2007). Autonomy allows individuals to adapt their working style to their strengths, promoting creative capabilities (Amabile and Gitomer, 1984).

Resources

Allocating adequate resources, such as time, funding, and tools, is directly related to the level of creativity in projects (Cohen and Levinthal, 1990; Kanter, 1983; Madjar, Greenberg, and Chen, 2011). Sufficient resources enable the full exploration of creative ideas. Perceived resource adequacy influences employees' beliefs about the value of their projects, driving them to take creative risks and persist through challenges.



Pressures

Pressures can have varying effects on creativity. Excessive workload pressure negatively impacts creativity (Baer and Oldham, 2006), especially when perceived as a form of control (Amabile, 1993). However, a certain level of pressure from urgency or intellectual challenge can positively influence creativity by increasing intrinsic motivation (Amabile, 1988; Ohly and Fritz, 2010). Challenging work can lead to heightened creativity (Shalley *et al.*, 2009) and innovative solutions, whereas excessive pressure can lead to stress and burnout, stifling creativity.

Organizational Impediments to Creativity

Internal conflicts, conservatism, and rigid management structures are significant obstacles to creativity (Kimberly and Evanisko, 1981). These factors create a less conducive environment for innovative thinking. Internal conflicts divert focus from creative tasks, and conservatism discourages risk-taking and new ideas. Rigid structures impose strict rules that limit flexibility and experimentation, diminishing intrinsic motivation (Amabile, 1988; Carmeli and Schaubroeck, 2007; Tierney and Farmer, 2004).

HRM PRACTICES FOR FOSTERING CREATIVITY

Indicators of organizational creativity encompass the assessment of both the quality and quantity of novel ideas, the level of innovativeness exhibited, the establishment of systems conducive to fostering creativity, collaborative communication practices, and the extent of leadership support (Woodman *et al.*, 1993). Through the implementation of contemporary HRM practices, it becomes feasible to exert influence over the cultivation of both individual and organizational creativity (Amabile, 1996; Hamel, 2007). HRM practices denote the array of organizational endeavours aimed at effectively managing the human capital to align with organizational objectives. A fundamental inquiry within HRM scholars pertains to the existence of a singular set of policies or practices constituting a "universally superior approach to managing people" (Chandler and McEvoy, 2000). The internal milieu of organizations profoundly shapes their HRM practices, with pivotal internal determinants including top management, business strategy, organizational culture, structure, and size, knowledge management, and HR policies. However, among these factors, top management stands out as the crucial factor. When top-level executives exhibit transformational leadership qualities, characterized by inspirational motivation, intellectual stimulation, individualized consideration, and idealized influence, they can markedly enhance the creativity of personnel within the organization (Zhang and Bartol, 2010).

Business leaders bear the responsibility of formulating a business strategy that prioritizes innovation to ensure the organization remains competitive in the marketplace. If they engage HRM in the strategic development process, HRM practices should be tailored to align with organizational goals and priorities (Gumusluoglu and Ilsev, 2009). By fostering a conducive organizational culture, business leaders can exert influence over the level of creativity within the organization. This entails supporting endeavours such as experimentation, collaboration, and risk-taking (Amabile, 1988; 1996; Dewett, 2007), while promoting innovative thinking and embracing diversity to encourage the exploration of diverse perspectives (De Jong and Den Hartog, 2007).



Through the cultivation of a creative organizational culture, HRM practices play a significant role in the development of creative skills and provide a secure environment conducive to nurturing employee creativity (Florida, 2002; Amabile and Kramer, 2011). Organizational design represents one such practice through which the establishment of an organizational structure can facilitate collaboration across different teams and mitigate bureaucratic barriers that impede creativity (Perry-Smith and Mannucci, 2017). Organizations that foster teamwork and cooperation among employees enhance their capacity to generate and refine creative ideas (Amabile, 1998; Sawyer, 2007).

According to McPherson (2008), many small organizations do not formalize HRM practices, while in larger organizations, there may be a distinct HR unit for each functional area (Jackson *et al.*, 1989). Formal HRM practices are instrumental in ensuring consistency across all HRM functions. For instance, practices focusing on knowledge management facilitate the exchange of ideas and knowledge among employees (Bock and Kim, 2002), organizing online forums and brainstorming workshops to stimulate the generation of new ideas (De Jong and Den Hartog, 2007).

CASE STUDY: ROLE OF HRM IN FOSTERING CREATIVITY IN IT ORGANIZATION

The focus of this study is a mid-sized IT organization, employing between 51 to 100 individuals, characterized by its high-technological orientation and a blend of domestic and foreign capital. While its primary operations are concentrated within the Serbian market, the organization also maintains a significant global presence. The escalating pace of digitalization in both the economy and society has heightened the demand for innovative solutions from the company. Specifically, there is a need to facilitate the integration of existing systems into new digital frameworks, necessitating the availability of knowledgeable personnel proficient in current and emerging operating systems. The company faces mounting pressure, particularly from global market dynamics where advancements in technologies such as Artificial Intelligence (AI) drive the need for continuous adaptation to evolving market demands.

HRM function is intricately involved in all facets of organizational culture and people processes within this context. A primary challenge for HRM lies in the identification and recruitment of suitable talent, given the intense competitiveness prevalent in the Serbian labour market. Positioned as strategic partner alongside company owners, HRM function operate under sustained scrutiny from various stakeholders, including business leaders, employees, the labour market, and business clients. In response to these challenges and with an aim to delineate future strategic priorities, the organization has embarked on a research endeavour focused on understanding the role of HRM in fostering creativity development. The anonymity of the organization was deemed essential for the dissemination of this research, owing to the fiercely competitive nature of the business landscape.



METHODOLOGY

To conduct this research, a mixed-method research design was employed, combining both quantitative and qualitative methods. This approach allows for the observation of characteristics and relationships between variables while minimizing research bias and providing strong evidence for causal relationships (Creswell and Creswell, 2017). The quantitative method offers measurable data, whereas the qualitative method provides a rich understanding of the perceptions, attitudes, and meanings attributed to behaviours, events, and phenomena, while exploring the connections and potential contradictions between them (Hakim, 2009). A qualitative study is particularly suited to this research as it enables in-depth exploration and generates data that offer a deeper understanding of the role HRM plays in fostering creativity, as well as the factors that can nurture or constrain creativity within the organization. This aligns well with the exploratory nature of the study.

Given the study's foundation in literature review, an inductive approach was adopted that allow for exploration with a certain level of creativity and flexibility, while permitting alternative explanations of the studied subject (Saunders *at al.*, 2009). To study this complex phenomenon involving participants from different departments, a case study analysis was utilized. This method offers a flexible research design with various data collection methods and is appropriate for obtaining a holistic understanding (Hakim, 2009) with rich descriptions of the phenomenon from the participants' perspectives (Stark and Torrance, 2005). Thirteen out of fifteen invited employees from different departments were participating. Participants were randomly selected for this research by the company HR Manager.

The questionnaire used as the instrument for data collection was designed to gather data for both quantitative (using closed questions) and qualitative research (using open-ended questions). This design ensures a comprehensive collection of data to support the study's objectives. The questionnaire consists of 34 questions, including 27 open-ended and seven closed questions. The closed questions require answers on a five-level Likert scale, where "1" represents the lowest rating and "5" the highest. This scale allows for the differentiation of opinions. The questionnaire is divided into two parts. The first part focuses on collecting basic information about the participants that are used to understand their individual perspectives. This information is related with the responses from the second part of the questionnaire to identify any mutual relationship and/or trends. Hence, the aim of this research is to comprehend the importance of creativity in the IT organization, and the role of HRM practices in fostering creativity from the employees' perspective. The data collected using a questionnaire is automatically input into an Excel spreadsheet and arranged into a format that creates a dataset easy to analyse. Answers to open-ended questions from different groups are synthesized and compared with the hypotheses presented in theoretical models in the sections 2, 3 and 4 of this research paper. Answers to closed questions from different groups are statistically processed to understand the differences between them.

Methodology used for data analysis was directed by the nature of survey and sample size. Statical Software used was SPSS version 29.0 (IBM, 2024). Option for the analysis of small sample and qualitative data in nature was Part of the Descriptive Statistics, option Cross tab that is using Xi square analysis to check the strength of relationship between variables. As a final result of analysis researcher is presented with the *p-value* (significance value) for the decision if there are differences between variables, *i.e.*, the significance of relationships established based on the statistical evidence.

The *p-value* estimates the probability of obtaining the observed results under the assumption that the null hypothesis is true (and there is no statistical difference found). In accordance with the nature of a business case study carried out, a *p-value* of less than 0.1 (10%) is considered statistically significant.



The statement being tested for statistical significance represent the null hypothesis. The test of significance is designed to assess the strength of the evidence against the null hypothesis, or a statement of “no effect” or “no difference”. It is often symbolized as H_0 (Moore and McCabe, 2003).

Interpretation of the *p-value* based on level of significance of 10% (Cleggett, 2023):

- If $p \geq 0.1$, there will be no assumption for the null hypothesis (retaining null: no significance);
- If $p < 0.1$, there will be a low assumption for the null hypothesis (rejecting null: yes significance).

While the mixed-method approach offers a number of advantages, there are potential limitations and biases inherent in this approach, namely complexity and the need for adequate skill to compile the research design (Creswell and Creswell, 2017). This limitation was fully addressed by adopting an existing form of questionnaire. Another limitation concerns data integration and interpretation challenges, which were addressed using the explanatory sequential method, where quantitative data and results are explained by qualitative data and results.

Further biases that arose during the research include selection, confirmation, and analysis. Selection bias was partially mitigated by engaging participants from different departments, although there is always a possibility that some participants could have provided favourable information about the company and the job itself. Confirmation bias was addressed by involving an independent statistician, who maintained professional objectivity and ethics. The risk of overlooking or underestimating data when using a mixed-method can potentially lead to analysis bias. This was mitigated through continuous collaboration between the researchers, involving challenging conversations and sequential exploration.

RESULTS AND DISCUSSION

Results from closed questions (Q) are analysed, and three out of seven are selected as questions of interest, namely Q15, Q19, and Q26. These questions closely resemble the conceptual framework of employees' perception – it gleaned from the conditions for expressing creativity within the working team (Q15), as a prerequisite for company efforts and individual involvement to improve creativity (Q19), ending with assessment of knowledge sharing within the company (Q26). Hence, Q15 and Q19 serve as indicators of participants' perceptions regarding the conditions necessary for expressing creativity within their teams, while Q26 represent an indicator of the overall quantum of knowledge shared on the organizational level.

These questions are compared among five teams: HR, maintenance, project management, research, and development, and are presented in Table 1 that serves as an original contribution to this research paper, based on the case study. In Table 1, comparisons of response results from four teams (maintenance, project management, research, and development) are presented against the HR team, which serves as the focal point for project creativity development. Assessment results from the HR team consistently receive a rating of "5" for all relevant questions, establishing an arbitrary benchmark of excellence for comparative purposes. The analysis reveals variations in perception between the HR team and the other four participating teams for each question of interest, as evidenced by evaluations on the Likert scale.

The response outcomes of the project management team notably diverge from those of the HR team, primarily owing to a perception surrounding inadequate planning during the project's initial phases that is reflected via the following statement: “If sufficient resources are secured early in the planning phase, we will know at the beginning of the project what to expect when we complete the project within the expected timeframe and quality”. This perception is further compounded by insufficient resources,



encompassing both the quantity and competency levels of project team members, claiming: “... sufficient resources of all kinds, especially time and people, and when companies recognize knowledge and abilities, you work on projects with competent colleagues ...”, along with inadequate time allocated for knowledge dissemination, constructive deliberations, and addressing challenges. Moreover, the limited time afforded for the implementation of gleaned insights exacerbates the situation: “Due to the lack of time, we often make quick decisions that need to be corrected later in the process, leading to frustration among team members. This is because we rarely work on just one project, and we knew, for example, that we could have corrected those mistakes earlier if we had enough time to discuss, exchange opinions, and apply previously acquired knowledge”.

The absence of a conducive work environment, stemming from a high turnover rate among employees, manifests in the dearth of both quantity and quality among project members: “HR can contribute by improving the quality of hiring and speeding up the entire process”. Additionally, the lack of acknowledgment, rewards, and financial resources allocated towards stimulating innovative solutions further accentuates the disparity: “... of course, financial compensation is also important for the successful implementation of new tools and the launch of large projects that bring in significant amounts of money. It is important that our work is recognized and rewarded”.

Table 1. Analysis of comparison of responses per four organizational teams compared to HR team

Teams	Q15		Q19		Q26	
	<i>p-value</i>	Significance	<i>p-value</i>	Significance	<i>p-value</i>	Significance
Maintenance	0.29	No	0.11	No	0.11	No
Project Management	0.068	Yes	0.067	Yes	0.07	Yes
Research	0.29	No	0.29	No	0.29	No
Development	0.24	Yes	0.13	No	0.13	No

To comprehend the role of the HRM function in fostering the development of creativity, we examine the research findings in conjunction with pertinent HRM practices and delve into their contributions. Subtitles stated below (*i.e.* “main categories”) are based on the most prevalent comments from participants, including proposed HRM practices (*i.e.* “subcategories”), which are presented in Table 2.

When expressing views on the significance of creativity within the organization, participants underscored their full awareness of creativity as a direct contributor to the organization's competitive advantage. “Without creativity, there are no new solutions and no progress. On the project I am currently working on, new solutions are expected from me that improve productivity and collaboration, thereby providing the company with an advantage through time savings, cost reductions, quicker problem resolution, more efficient problem-solving, and greater satisfaction among the people involved in the project. All of this contributes to the better quality of the products we are working on”. Participants claimed that creativity serves as a catalyst for initiating change and prerequisite for innovation that empowers the company to respond effectively to market needs. “It ensures that the company remains innovative and distinct, thereby attracting clients. This way, it survives in the market”.

Consequently, the role of HRM in fostering creativity was deemed pivotal. HRM activities can attract and recruit creative employees, establish an environment conducive to creativity development at both the individual and group levels, and influence employee retention that reinforce the competitive



advantage. Indeed, it was claimed that creativity indicators within the organization encompass various aspects: the quality and quantity of new ideas, the degree of innovativeness, the development of systems supporting creativity, collaborative and communicative practices, and leadership support (Woodman, *et al.*, 1993).

Strategic orientation

Adopting a strategic orientation in HRM is crucial for aligning with contemporary trends and competitive dynamics (Gumusluoglu & Ilsev, 2009). This strategic orientation helps HRM respond to rapidly changing business environments and the increasing demands for innovation by shaping the organizational culture and influencing the climate for creativity (Florida, 2002; Amabile & Kramer, 2011). Implementing policies that promote openness, collaboration, and risk-taking is essential for fostering creative thinking and innovation. A culture that values and rewards creativity can motivate employees to engage in creative activities and contribute innovative ideas.

HRM impacts creativity development significantly at both individual and organizational levels. On an individual level, HRM practices enhance employees' creative potential by providing learning opportunities, challenging assignments, and recognizing creative efforts. This approach aligns with Amabile's (1997) componential model of creativity, emphasizing intrinsic motivation, domain-relevant skills, and creative thinking skills. Organizationally, HRM influences structural and procedural aspects supporting creativity, such as flexible work arrangements, cross-functional teams, and open communication channels. By fostering these components, HRM enhances employees' capacity for creative thinking and problem-solving. For example, training programs help employees acquire necessary skills, while a supportive environment boosts their intrinsic motivation for creative activities.

Fostering individual and group creativity

Expertise and motivation, two key components of individual creativity (Amabile, 1997), were emphasized by participants. Expertise involves the knowledge an individual brings to a creative endeavour, while intrinsic motivation sustains creative efforts. Participants highlighted HRM's role in recruiting knowledgeable and highly motivated candidates, ensuring new hires have both the necessary skills and the drive to apply them creatively. Hiring candidates with diverse backgrounds and skills enhances knowledge sharing and collaboration within teams, leading to richer, more innovative solutions.

HRM should involve supervisors and subject matter experts in defining competency levels, periodically revisiting requirements based on business needs, and conducting regular reviews for ongoing alignment with organizational goals. This approach fosters a creative environment by encouraging flexibility, openness, and adaptability, leading to novel solutions. Additionally, team members should be adequately prepared for meetings to ensure effective knowledge sharing and collaboration.

Fostering group creativity emerges as a pivotal approach in IT organizations characterized by cohort strategies, including teamwork, collaboration, a lean structure, and a culture of diversity and inclusion. Consequently, brainstorming workshops such as "Six Thinking Hats" (De Bono, 1999), "Walt Disney: Strategies of Genius" (Dilts, 1996), "SCAMPER: Games for Imagination Development" (Eberle, 2008) and "How-Now-Wow Matrix" (Gray, 2011) are integral to this concept. Although the recent framework of "Design Thinking" (Stanford, 2024) has proven successful in fostering innovation (Dell'Era *et al.*, 2020), our study specifically targets the foundational aspects of creativity and the nurturing role of HRM, rather than the subsequent innovation processes where design thinking plays a crucial role.



Facilitating supervisor support for knowledge sharing within the organization

Participants emphasized the importance of knowledge sharing with colleagues, mentors, and supervisors. This practice is crucial for participating in discussions on emerging knowledge and trends. Well-informed and knowledgeable leaders can provide valuable insights, foster innovation, and ensure competitiveness. Supportive supervision is critical for fostering a creative climate (Amabile *et al.*, 1995). Supervisors who clarify goals, encourage teamwork, and maintain open interactions can significantly enhance their team's creative performance by motivating employees to think creatively and reducing the fear of failure.

HRM supports workgroups by establishing conditions for collaboration and knowledge exchange, creating a culture that values open communication and teamwork (Bock & Kim, 2002).

Facilitating supervisor support for knowledge sharing outside the organization

Participants highlighted the value of engaging with learning and support groups outside the organization. This practice balances safeguarding proprietary information with sharing pertinent knowledge responsibly. HRM's role in facilitating external knowledge sharing involves fostering a culture of creativity through strategies such as:

- Formal knowledge sharing: Participating in external conferences, forums, seminars, lectures, and workshops (De Jong & Den Hartog, 2007; Amabile & Khaire, 2008);
- Transparent communication: Clarifying what information can be shared externally;
- Training and ethical workshops: Raising awareness about ethical behaviour and responsible knowledge sharing (Chang *et al.*, 2011);
- Administrative measures: Developing guidelines and protocols for knowledge sharing;
- Supportive culture: Recognizing and rewarding employees who engage in knowledge sharing;
- Leveraging technology: Utilizing platforms like intranets and online forums for easy information sharing.

The significance of training and development

Participants pointed out the importance of creative skills such as problem-solving, adaptability, and critical thinking. HRM plays a pivotal role in recruiting candidates with these skills and creating an environment that nurtures them (Amabile & Khaire, 2008; Gumusluoglu & Ilsev, 2009). It's essential to allocate time for employees to acquire and apply these skills and engage in ideation. HRM should foster an atmosphere of trust, promote collaboration, improve communication skills, offer coaching and mentoring, and facilitate team-building activities to enhance creativity

**Table 2.** Categories of HRM practices for fostering creativity in IT organization

Main categories	Sub-categories
Strategic Orientation	<ul style="list-style-type: none"> • Understand business specifics and needs • Build and promote creative organizational culture • Monitor the labour market • Align HR processes with contemporary trends and competitive dynamics
Fostering Individual and Group Creativity	<ul style="list-style-type: none"> • Hire for diverse knowledge, creative skills, and intrinsic motivation • Design jobs together with subject matter experts • Conduct regular job description reviews • Organize individual and group workshops
Facilitating Supervisor Support for Knowledge Sharing within the Organization	<ul style="list-style-type: none"> • Introduce coaching and mentoring • Introduce knowledge sharing
Facilitating Supervisor Support for Knowledge Sharing Outside the Organization	<ul style="list-style-type: none"> • Foster formal knowledge and experience sharing through participation in conferences, forums, seminars, lectures, and workshops outside the organization
The significance of Training and Development	<ul style="list-style-type: none"> • Organize training for fostering creative skills • Allocate time for acquiring and applying required skills • Organize leadership training • Introducing Career Development
Setting Clear Expectations and System of Compensation and Rewards	<ul style="list-style-type: none"> • Introducing Performance Appraisal System • Organize goal settings and applying appropriate methodologies workshops • Introduce the Compensation and Benefits System
The Significance of Stimulating Creativity and Overcoming Barriers	<ul style="list-style-type: none"> • Introduce individual and group approach for overcoming barriers by monitoring, identifying, and organizing supporting activities • Stimulating creativity through promotion, monitoring, and implementation of activities on individual and group level

Note: From Kosović, J., & Dražeta, L. (2023). The Importance of HRM Practices for Fostering Creativity Development in IT Organizations. Book of Proceedings - FINIZ 2023, 74-80.

Setting clear expectations and system of compensation and rewards

Setting clear expectations and establishing a system of salaries, rewards, and recognition to incentivize creativity emerged as significant. HRM should adopt a strategic role in articulating clear expectations and establishing systems for:

- Goal setting: At both organizational and individual levels;
- Performance management: Acknowledging and rewarding creative contributions (Armstrong, 2009; Oldham & Cummings, 1996);
- Evaluating creative work: Understanding how to measure creativity at various levels (Rhodes, 1961);
- Compensation and rewards: Linking awards to successful creative ideas (Amabile, 1996) and establishing both financial and non-financial incentives.



The significance of stimulating creativity and overcoming barriers

HRM's role in stimulating creativity involves recognizing stimuli, promoting necessary corrections through regular feedback, and facilitating the exchange of ideas. Techniques such as regular team meetings, anonymous group support systems, and creative problem-solving methods (Osborn, 1953) are essential for encouraging innovative thinking. HRM must also address barriers to creativity, such as ingrained habits, conservative rules, and emotional barriers (Davis, 1999). By creating an open communication culture, regularly assessing creative processes, and providing continuous feedback, HRM ensures that any barriers to creativity are promptly addressed and corrected.

Practical implications for HRM practitioners and organizations

In light of the evolving demands of modern workplaces, HRM practitioners and organizations must adopt a multifaceted approach integrating strategic orientation, creativity fostering, and continuous development. Based on research outcomes, the following recommendations are essential.

HRM should be involved in business strategy planning, engaging in regular consultations with supervisors of various departments to understand business specifics and needs. This approach helps tailor HR practices to align with the unique requirements of the business, supporting strategic objectives.

HRM should collaborate with business leaders to cultivate an environment that encourages innovation and creative thinking at all levels. This can be achieved by implementing programs that celebrate creativity, such as innovation awards and idea-sharing platforms.

HRM should monitor labour market trends to attract and retain top talent, ensuring a competitive advantage. By performing regular market analyses HRM helps identifying emerging skills and adjust recruitment strategies accordingly. Align HR processes with contemporary trends and competitive dynamics to allow organizations to adopt new technologies for talent management and implement flexible work arrangements, attracting a diverse workforce. Collaborate with experts to create roles to maximize creativity and efficiency. Hiring should focus on diverse knowledge, creative skills, and intrinsic motivation, enriching the organizational talent pool.

Once hired, creative employees should receive support from HR and supervisors through workshops stimulating creative thinking and problem-solving, fostering collaboration and innovation.

HRM should be responsible for monitoring and facilitating the performance management system, ensuring that supervisors set clear expectations due to its impact on performance, motivation, autonomy, risk-taking, engagement, and creativity. HRM should facilitate goal alignment activities within the organization to positively influence engagement and collaboration, leverage resources, and mitigate risks that negatively affect creativity. Organizational effectiveness and efficiency, which are measurable, lead to better resource management and a positive organizational reputation.

Based on set goals, HRM should work with supervisors and employees to define training needs, organize training accordingly, and ensure employees have the necessary time and resources to develop and apply new skills. HRM should take an active role in organizing supervisor leadership training and development. Additionally, developing strong leadership skills among all employees through structured training programs is essential, particularly in IT organizations with lean structures. Implementing coaching and mentoring programs is another crucial role HR practitioners should take on to foster a culture of continuous learning and knowledge sharing.



HRM should facilitate supervisor support for knowledge sharing within and outside the organization, promote open communication and collaboration among team members, and support participation in external conferences, forums, seminars, lectures, and workshops to bring fresh insights and best practices into the organization.

Establishing career development initiatives supports employees' professional growth and long-term engagement, directly impacting talent retention and continuous motivation. Therefore, HRM should implement and monitor career path planning, skill development programs, and opportunities for advancement within the organization.

Setting clear expectations and establishing a system of compensation and rewards is an HR and organizational priority. Clear communication of vision, strategic priorities, and expectations allows everyone to understand their contributions, facilitating performance evaluation, achievement recognition, and the identification of areas for improvement. HR and supervisors should develop a comprehensive compensation and benefits system to motivate and retain top talent, ensuring fairness, competitiveness, and overall employee well-being.

By integrating these practices, organizations can enhance their HRM strategies, foster a culture of creativity, and ensure continuous development and engagement of their workforce. This comprehensive approach not only supports the immediate needs of the organization but also builds a foundation for sustained success and innovation. Managers play a crucial role as people managers directly involved in these processes, making their impact intrinsically linked to the HRM practices highlighted in this study.

CONCLUSION

Examining the role of HRM in fostering creativity at the individual and organizational levels are essential conditions for securing a competitive advantage in the IT industry. This is of paramount importance for practical application to understand what influences both types of creativity in organizations and how contemporary HRM practices can influence creativity development. It is primarily accomplished by mind-set shift among HR practitioners into “model that is more flexible and responsive, and built around four interrelated trends: more connection, unprecedented automation, lower transaction costs, and demographic shifts” (Mygatt *et al.*, 2020). Emerging models are creative, adaptable, and antifragile, where workers become talents, hierarchical structures become networks of teams, competitors become ecosystem collaborators and organizations become more human: inspiring and collaborative, with rich employee experience that is both meaningful and enjoyable. HRM plays a vital role in making sure the organization is living its purpose and values, articulating and role-modelling desired individual mindsets and behaviours linked to purpose by identifying “moments that matter” in the company’s culture and translating it into a set of leadership and employee norms and behaviours (Komm *et al.*, 2021).

In addition to attracting and hiring individual creatives, it is essential to foster a culture of creativity within the organization and provide them with conducive work environments and opportunities for ongoing creative development. This strategic approach is aimed at gaining a competitive edge in the highly competitive global market. Basic components of individual creativity, including the quantum and exchange of knowledge, creative skills, and intrinsic motivation for tasks, have been identified both theoretically and through empirical case studies. Participants in these studies emphasized the importance of equipping employees with the necessary knowledge and skills to effectively share and expand knowledge within the organization. Furthermore, participants underscored the significance of possessing creative skills and highlighted the pivotal role of HRM in fostering the development of



such skills, while facilitating knowledge sharing initiatives. They confirm the importance of organizational orientation towards creativity and innovation through communication of organizational goals, provision of supervisory and team support, adequate resources, and recognition of creative solutions through rewards and recognition. The perception of the HR team's role is dual in nature: it functions both as an organizational entity and as a team member tasked with creating conducive conditions for fostering creativity at both individual and organizational levels through HRM practices.

The research presented delves into a group with considerable uniformity in terms of educational background, age demographics, and job roles. Despite this homogeneity, variations were noted among participants regarding their individual needs and expectations. It is widely recognized that contemporary organizations stand to benefit from fostering environments that embrace diversity and inclusion as catalysts for nurturing creativity and, by extension, driving innovation. Consequently, it becomes evident that no singular solution can universally address the diverse needs of all employees, nor can all situations be remedied through identical HRM interventions. However, within this diversity lies an opportunity to tailor HRM practices to suit specific organizational contexts and individual requirements. The success of such implementations hinges not only on the appropriateness of the proposed solutions but also on the innovative strategies devised by HRM professionals, bolstered by robust support from management.

The findings obtained from the case study not only validate established theoretical hypotheses but also shed light on particular HRM practices that effectively foster creativity. These practices, while contextually specific to the IT industry, hold promise for application within similar organizational settings. Notably, participants underscored the significance of knowledge sharing beyond organizational boundaries, emphasizing its pivotal role within the IT community. The practical solutions outlined in this research paper thus represent a valuable contribution that can aid other IT organizations in enhancing their creative endeavours.

Furthermore, this paper underscores the intrinsic components of individual creativity, offering insights for individuals seeking to distinguish themselves in today's fiercely competitive global labour market. Beyond merely enhancing personal employability, understanding, and fostering these components can facilitate self-actualization, a fundamental aspiration for every individual.

Looking ahead, there exists a compelling opportunity to extend the research by applying the questionnaire utilized in this study to a diverse array of IT organizations, varying in size and structural composition. Such an endeavour would enable a comprehensive assessment of the efficacy of the aforementioned HRM practices in nurturing both individual and organizational creativity across different organizational contexts.

ACKNOWLEDGEMENT

We would like to express our sincere gratitude to Prof. Dr Endre Pap, Singidunum University, Belgrade, Serbia for his scientific contribution to this paper.



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APPENDIX 1 - Questionnaire for Research Participants

Part I

General information

1. What is your age?
2. What is your level of education?
3. In which sector are you employed?
4. How long have you been working in your current position?
5. What is the focus of your team's work?

Part II

Creativity

6. Rate the level of creativity in your organization (1 being the lowest score, 5 being the highest score).
7. How often do you participate in development projects in your workplace? Rate from 1 to 5.
8. What is your role in the mentioned projects?
9. What does creativity mean to you?
10. In what way is creativity expected from you in the projects you participate in?
11. What creative skills are expected from you during your involvement in the mentioned projects?
12. Why is creativity necessary for organizations?
13. When do you feel motivated to be creative?
14. What conditions need to be met in the organization for you to be creative in your workplace?
15. How would you rate the conditions necessary for expressing creativity in your team? Rate from 1 to 5.
16. What encourages and what constitutes barriers to expressing creativity in the organization/your team?
17. How can your company influence the development of creativity in the organization?
18. What efforts does your company/HRM make to improve creativity? Have you been involved in these activities? How?
19. How did you perceive the mentioned efforts? Rate from 1 to 5.
20. How did the mentioned efforts affect the level and conditions for the development of creativity in the organization/your team?
21. Rate from 1 to 5 the level of positive impact the mentioned efforts had on your motivation.
22. Rate from 1 to 5 the level of negative impact the mentioned efforts had on your motivation.
23. What can HR do to contribute to the development of creativity in the organization/your team?
24. What can the company do to contribute to the development of creativity in the organization/your team?
25. What can you do to contribute to the development of creativity in the organization/your team?

Part III

Knowledge Sharing

26. Rate the level of knowledge sharing within the company. Rate from 1 to 5.
 27. With whom do you have the most opportunities for sharing knowledge and experiences in your organization?
 28. In what situations do you share your knowledge and with whom?
 29. How do you share knowledge?
 30. Why is knowledge sharing (giving and receiving knowledge) important to you?
 31. What conditions need to be met for you to share knowledge?
 32. When you have an idea for a new/improved way to perform a task or to develop a product/service, what do you do/what do you think you should do?
 33. How do you prefer to learn? From whom?
 34. In your opinion, what needs to be done to improve the conditions for collaborative learning and knowledge sharing in the organization?
-

Note. Adopted from Karlsson, J. (2013).



ULOGA UPRAVLJANJA LJUDSKIM RESURSIMA U PODSTICANJU KREATIVNOSTI: PRIMENJENO NA IT ORGANIZACIJI U REPUBLICI SRBIJI

Rezime:

Ovaj istraživački rad ima za cilj da analizira značaj i ulogu savremene prakse upravljanja ljudskim resursima (HRM) u privlačenju kreativnih pojedinaca u organizaciju, i u negovanju okruženja koje je pogodno za njihov rad, razvoj i samoaktualizaciju. Razumevanje načina negovanja kreativnosti na individualnom i na organizacionom nivou postalo je ključno za svaku organizaciju u industriji informacionih tehnologija (IT). Ovi napori na kraju dovode do sticanja konkurentskih prednosti. Sa brzim tehnološkim napretkom i konkurencijom za talente koja je usledila, izazov privlačenja i zadržavanja visokokvalitetnih pojedinaca postaje sve istaknutiji, primoravajući organizacije da traže rešenja od HRM-a. Prikazana studija slučaja u ovom radu ispituje značaj kreativnosti za IT organizacije i vrednuje glavne komponente kreativnosti pojedinca i organizacije kroz upitnik koji se sastoji od 34 pitanja. Rezultati istraživanja ističu prakse upravljanja ljudskim resursima koje značajno doprinose razvoju. Ovaj rad ima za cilj da pruži uvid u teorijske okvire koji služe kao hipoteze i praktične primene identifikovanih praksi. Pored toga, podstiče zaposlene u HRM-u da dalje istražuju koristeći priloženi upitnik.

Ključne reči:

Individualna kreativnost,
organizaciona kreativnost,
HRM prakse,
IT organizacije.

JEL klasifikacija:

L1, L21, M51, O15