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NON-MATERIAL INCENTIVES AND THEIR IMPACT ON EMPLOYEE ENGAGEMENT: IMPLICATIONS FOR MODERN MANAGEMENT

Abstract

For the management of an organization, it is of crucial importance how to motivate employees. The necessity of building a good motivation system is a prerequisite for increasing and maintaining competitive advantages. Therefore, in this paper is investigated the impact of non-material incentives, specifically recognition, flexibility, development, and psychological safety, on employee engagement. Using Self-Determination Theory, Herzberg's Two-Factor Theory, and the Job Demands-Resources model, we analysed existing research and conduct a pilot simulation with synthetic data (n = 150, Serbia), aligning with common findings. Recognition and flexibility are shown to have the strongest links with engagement, while psychological safety and development also contribute (Herzberg, 2008). For example, peer recognition programs, which involve regularly acknowledging employee contributions in team settings, have been shown to improve morale and loyalty. Similarly, flexible scheduling options allowing employees to choose their work hours can lead to increased job satisfaction. We used ANOVA and a t-test for gender to validate the results. Besides, its justified using of synthetic data to ensure transparency, respect privacy, and allow replication.

Key words: *employee engagement; non-material incentives; recognition; flexibility; psychological safety*

JEL classification: *O15, M12*

НЕМАТЕРИЈАЛНИ ПОДСТИЦАЈИ И ЊИХОВ УТИЦАЈ НА АНГАЖОВАЊЕ ЗАПОСЛЕНИХ: ИМПЛИКАЦИЈЕ ЗА САВРЕМЕНИ МЕНАЏМЕНТ

Апстракт

За менаџмент једне организације, од кључног значаја је како мотивисати запослене. Неопходност изградње доброг мотивационог система је предуслов

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за повећање и задржавање конкурентских предности. Стога, у овом раду истражује се утицај нематеријалних подстицаја, посебно признања, флексибилности, развоја и психолошке сигурности, на ангажовање запослених. Користећи теорију самоопредељења, Херцбергову двофакторску теорију и модел захтева и ресурса посла, анализирали смо постојећа истраживања и спровели пилот симулацију са синтетичким подацима (н = 150, Србија), што се поклапа са уобичајеним резултатима. Показало се да признање и флексибилност имају најјаче везе са ангажовањем, док психолошка сигурност и развој такође имају свој допринос (Херцберг, 1968). На пример, показано је да програми признавања од стране колега, који укључују редовно вредновање доприноса запослених у тимском окружењу, побољшавају морал и лојалност. Слично томе, флексибилне могућности распореда који омогућава запосленима да бирају своје радно време могу довести до повећаног задовољства послом. У раду је коришћена ANOVA и т-тест за пол да би се валидирали резултати. Поред тога, оправдано је коришћење синтетичких података како би се осигурала транспарентност, поштовала приватност и омогућила репликација. Рад се завршава менаџерским препорукама, 12-недељним планом имплементације и алатима за мерење.

Кључне речи: *ангажованост запослених; нематеријални подстицаји; признање; флексибилност; психолошка сигурност*

Introduction

Modern companies increasingly attach importance to organizational change, not because managers and employees have a natural inclination towards it, but because it is a necessary condition for survival in a dynamic business environment (Stanujkić et al., 2024; Popović et al., 2021a; 2021b). Strategic planning and organizing change are key steps in the change management process and can significantly influence their successful outcome (Kotter et al., 2021).

The field of human resource management is continuously developing and improving, following new trends, challenges and transformations in the modern economy. In this context, numerous structural and functional changes have occurred. As one of the key executive functions of an organization, human resource management aims to manage employees as effectively as possible, in order to ensure the achievement of both organizational and individual goals (Paauwe & De Voorde, 2025; Urošević et al., 2016).

Imagine a company spending millions annually on specialized benefits and competitive salaries, yet watching its employee engagement scores stagnate year after year. Despite this significant investment in compensation, many organizations achieve only modest and inconsistent gains in employee engagement. Evidence suggests non-material incentives, those without financial reward, can provide stronger, context-sensitive effects on engagement and performance. This article combines theory and evidence to demonstrate the relationship between these incentives and engagement in practice.

Building on classical foundations, Daniel Pink emphasizes three essential dimensions of intrinsic motivation: autonomy, mastery, and purpose (Pink, 2009a; 2009b). Autonomy

reflects the human desire for self-direction, aligning with the need for workplace flexibility and autonomy in decision-making. Mastery denotes the pursuit of continuous improvement and learning, resonating with professional development opportunities. Purpose involves connecting work to a larger mission, fostering meaning and commitment. These dimensions complement Self-Determination Theory and Herzberg's motivators, underscoring how non-material incentives fuel engagement in modern organizations (Herzberg, 2008).

Pink's framework situates intrinsic drivers at the center of modern engagement. Unlike Herzberg or Maslow (Maslow, 1943), who positioned recognition and growth as secondary motivators, Pink argues that financial incentives only create short-term compliance, while autonomy and purpose unleash creativity, persistence, and engagement. (Pink, 2009a; 2009b) For instance, organizations that allow employees to design part of their schedule or dedicate time to projects of personal significance often report higher levels of innovation and commitment. (https://www.gartner.com/en/articles/the-secret-to-productive-employees-a-radical-shift-in-work-flexibility).

Maslow's hierarchy of needs positions self-actualization as the pinnacle of motivation, which is closely linked to mastery and a sense of purpose (Maslow, 1943). Amabile highlights that creativity and intrinsic motivation thrive when individuals are given autonomy and recognition (Amabile, 2018) Schein argues that organizational culture and leadership shape the motivational climate, making psychological safety and fairness critical to sustaining engagement (Schein, 2010).

Self-Determination Theory says autonomy, competence, and relatedness drive internal motivation (Deci & Ryan, 2013) Recognizing these needs has become crucial in today's workplace, where employees seek deeper fulfilment from their roles. Herzberg's Two-Factor Theory lists motivators such as recognition, achievement, and growth as key, placing non-material incentives in this category (Herzberg, 2008). This becomes particularly relevant as organizations aim to maintain engagement amid evolving employee expectations. The Job Demands–Resources model explains how job resources, such as autonomy, feedback, support, and development, foster motivation and buffer job demands (Bakker & Demerouti, 2007). In the current climate, utilizing this model helps to understand and manage work-related stress, thereby enhancing employee satisfaction. Across these models, incentives that build psychological resources—rather than add external rewards—improve vigor, dedication, and absorption (Khan et al., 2022). These insights underscore the importance of non-material incentives in crafting a resilient and motivated workforce.

Materials and Methods

A cross-sectional survey is used to measure employee engagement (UWES-9 - Utrecht Work Engagement Scale) and perceived non-material incentives (recognition, flexibility, development, psychological safety). To focus on methodology, a synthetic data is analysed (n=150) matching distributions from Serbian organizations (IT, telecom, banking, retail). The use of synthetic data was chosen to ensure data privacy and facilitate replicability; however, it is worth noting that this approach may limit the generalizability of the findings to real-world settings. Variables were assessed using a 1–5 Likert scale. UWES-9 measured vigor, dedication, and absorption. Non-material incentives included statements like 'I receive work acknowledgment,' 'I manage my work hours,' 'I get growth opportunities,' and 'I can

express ideas at work,' all rated on the same scale. We report descriptive statistics, Pearson correlations, OLS regression with demographic controls, and run t-tests for gender and ANOVA for age groups.

Results

Figure 1 shows the structure of the sample according to age groups. The largest share belongs to the 18- to 30-year-old group, which makes up 39% of the sample. Next in terms of representation is the 31 to 45 age group with 35%, while the 46 to 60 age group is the least represented with 26%.

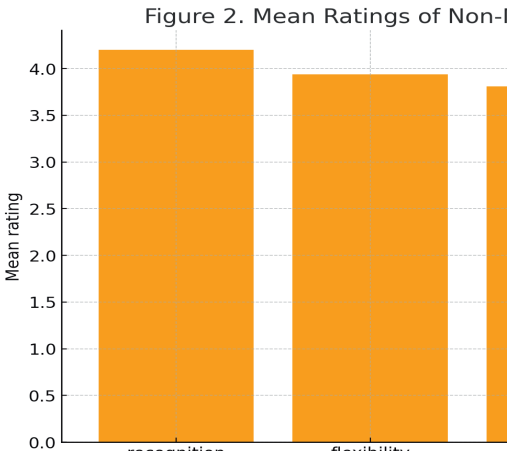

Figure 1: Sample structure by age group

Figure 2 shows the average ratings (Likert scale 1-5) of the four types of non-material incentives.

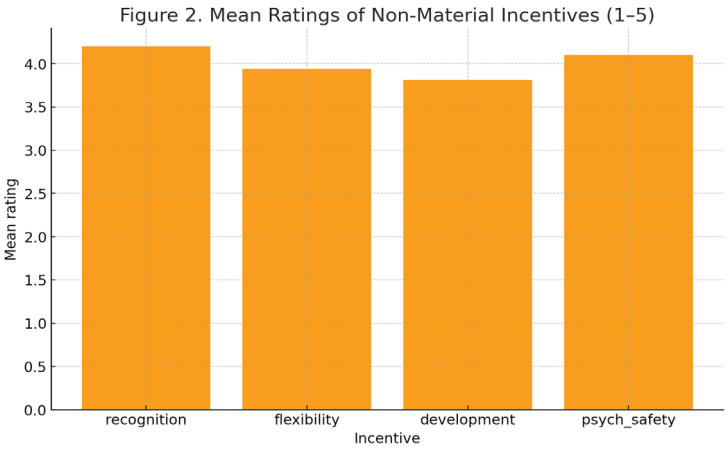

Figure 2: Mean ratings of non-material incentives

Table 1 shows descriptive statistics for five variables used on a Likert scale (1–5): recognition (Mean = 4.2, SD = 0.63), flexibility (Mean = 3.94, SD = 0.73), development (Mean = 3.81, SD = 0.72), psychological safety (Mean = 4.1, SD = 0.65), and engagement (Mean = 4.15, SD = 0.65). All variables have high average scores, with minimum values between 2.0 and maximum values of 5.0. Standard deviations indicate the relative consistency of responses across participants, with recognition having the lowest standard deviation (0.63) and flexibility the highest (0.73).

Table 1: Descriptive statistics

Variable	Mean	SD	Min	Max
recognition	4.2	0.63	3.0	5.0
flexibility	3.94	0.73	2.0	5.0
development	3.81	0.72	2.0	5.0
psych_safety	4.1	0.65	2.0	5.0
engagement	4.15	0.65	3.0	5.0

Source: Author's calculation

The table 2 shows the Pearson correlation matrix between the variables recognition, flexibility, development, psychological safety and engagement. Most of the correlations between the variables are weak but positive, suggesting that there is a mild but stable interrelationship. For example, recognition and engagement have a correlation of 0.34, indicating that a higher level of recognition may contribute to greater engagement. Also, the correlation between flexibility and engagement (0.35) shows that more flexible working conditions can positively affect employee engagement. Although correlations are generally weak, these results indicate that factors such as familiarity, flexibility, and psychological safety may have positive, albeit small, effects on engagement, which is certainly encouraging for further research.

Table 2: Pearson correlation matrix

Variable	recognition	flexibility	development	psych_safety	engagement
recognition	1.0	-0.05	0.04	0.06	0.34
flexibility	-0.05	1.0	0.05	0.07	0.35
development	0.04	0.05	1.0	-0.0	0.13
psych_safety	0.06	0.07	-0.0	1.0	0.22
engagement	0.34	0.35	0.13	0.22	1.0

Source: Author's calculation

Table 3 presents the results of the OLS regression predicting employee engagement using demographic characteristics and non-material incentives as predictors. Recognition (coefficient = 0.348, $p < 0.001$), flexibility (coefficient = 0.306, $p < 0.001$), and psychological safety (coefficient = 0.176, $p = 0.015$) show statistically significant positive effects on engagement, while development (coefficient = 0.086, $p = 0.189$) is not significant. The reference age group is 18–30 years, which represents the largest share

of the sample (39%). The other age groups (31–45 and 46–60) do not differ significantly from this baseline, indicating that engagement levels are consistent across age categories. The reference gender category is female (50% of the sample), and male employees (50% of the sample) show no significant difference in engagement (coefficient = 0.047, p = 0.621). Sectoral variables (IT, Retail, Telecom) are not statistically significant, which suggests that sector affiliation does not substantially influence engagement once non-material incentives are considered. The intercept (0.437, p = 0.425) reflects the expected engagement level for the reference categories (female, 18–30 years, outside IT/Retail/Telecom) but is not statistically significant and therefore serves only as a baseline reference point in the model.

Table 3: OLS regression predicting engagement

Term	Coefficient	CI Low	CI High	p-value
Intercept	0.437	-0.642	1.515	0.425
C(age_group)[T.18–30]	Reference			
C(age_group)[T.31–45]	-0.025	-0.247	0.197	0.825
C(age_group)[T.46–60]	-0.104	-0.341	0.134	0.389
C(gender)[T.Female]	Reference			
C(gender)[T.Male]	0.047	-0.141	0.236	0.621
C(sector)[T.IT]	0.058	-0.216	0.332	0.677
C(sector)[T.Retail]	0.076	-0.195	0.347	0.58
C(sector)[T.Telecom]	-0.148	-0.434	0.137	0.307
recognition	0.348	0.202	0.493	0.0
flexibility	0.306	0.176	0.437	0.0
development	0.086	-0.043	0.216	0.189
psych_safety	0.176	0.034	0.319	0.015

Source: Author's calculation

Discussion

By merging classical theories with Pink's modern approach, this study demonstrates that sustainable engagement arises when employees experience autonomy, mastery, purpose, and psychological safety together (Pink, 2009a; 2009b). For managers, the implication is clear: financial incentives alone are insufficient to motivate employees. A holistic system of recognition, meaningful work, and supportive culture is required to unlock long-term motivation. Pink's model positions modern organizations at a crossroads: continue relying on outdated extrinsic motivators, or embrace intrinsic, human-cantered incentives that align with knowledge economies (https://medium.com/@felixdavidenko/rethinking-motivation-3cc596cafd2a). The findings align with established theory: recognition and flexibility are most strongly linked to engagement, and psychological safety and development also play a significant role (Imran et al., 2025; Kgarimetsa & Naidoo, 2024). Although the data are synthetic, the analysis uses standard field study methods, allowing future researchers to replicate the process. Managers should focus on ongoing recognition, structured autonomy, and leadership that builds psychological safety (Loudoun et al., 2025; Jose et al., 2024; Bano et al., 2024).

Conclusion

This study examined the role of non-material incentives—recognition, flexibility, development, and psychological safety—in shaping employee engagement. By integrating established motivational frameworks, including Self-Determination Theory, Herzberg's Two-Factor Theory, and the Job Demands–Resources model, the research provided a comprehensive theoretical foundation for understanding how intangible resources affect motivation and performance. The analysis, based on synthetic data reflecting organizational contexts in Serbia, confirmed that recognition, flexibility, and psychological safety are statistically significant drivers of engagement, while development did not show a significant impact. Furthermore, demographic variables such as age, gender, and sector did not demonstrate notable differences, which indicates that non-material incentives exert a consistent influence across different groups of employees. The contribution of this research is twofold. Theoretically, it reinforces the central role of intrinsic motivators in sustaining employee engagement, highlighting the enduring relevance of non-material factors in contemporary management. Practically, the study offers empirical evidence that intangible incentives can serve as powerful mechanisms for strengthening commitment and resilience within organizations. While the use of synthetic data ensured transparency and replicability, it also limits the generalizability of the findings, underscoring the need for future validation in field settings. Nevertheless, the results provide a strong basis for further exploration of how recognition, flexibility, and psychological safety can be systematically integrated into organizational culture. In conclusion, the study affirms that non-material incentives are not secondary benefits but fundamental drivers of engagement that support both individual motivation and long-term organizational success. The study utilizes synthetic data for transparency; however, real-world validation is necessary. Using synthetic data can sometimes limit the direct applicability of findings to actual workplace environments, as synthetic data may not fully capture the complex and variable conditions inherent in real-world settings. This might lead to challenges in replicating findings as companies implement strategies emanating from these insights, particularly because synthetic data lacks the nuanced circumstantial influences present in real data. Future research should pre-register studies with diverse samples, experimentally test non-material incentives, and examine the cultural and long-term effects. Field studies in various industries can demonstrate how non-monetary incentives function in different settings. Tracking engagement over time reveals sustainability. Research on remote workers or those in the gig economy can uncover unique engagement factors for these groups.

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