“Analysis of the relationship between employee commitment and workplace stress through a Hungarian example”

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ANALYSIS OF THE RELATIONSHIP BETWEEN EMPLOYEE COMMITMENT AND WORKPLACE STRESS THROUGH A HUNGARIAN EXAMPLE

Abstract

In today's dynamic labor market, employee engagement has emerged as a critical organizational priority. The aim of the study is to assess the impact of stress factors on employee commitment and to identify differences in stress perception between mental and manual workers in the Hungarian small and medium-sized enterprise sector. The survey was conducted among 223 employees of the SME sector in Hungary in 2025. Participation was voluntary, anonymous, and confidential in accordance with GDPR requirements. A heterogeneous snowball sampling method was applied. The sample was nearly evenly split between white-collar (50.7%) and blue-collar workers (49.3%). Data were analyzed using IBM SPSS Statistics 23, and nonparametric methods such as the Jonckheere–Terpstra and Mann–Whitney U tests were applied. Descriptive statistics showed medium average levels for stress (Mean number = 3.07) and commitment (Mean number = 3.60). A significant negative trend between perceived stress and organizational commitment was confirmed ($z = -3.230$; $p = 0.001$), with higher stress levels. Pairwise comparisons showed that employees experiencing extreme or high stress reported moderate or low levels of commitment ($p = 0.003$ and $p = 0.002$). A significant difference in stress perception was found between occupational categories ($U = 5129.000$; $p = 0.018$), with higher levels among white-collar employees. Among knowledge workers, the most influential stressors included complex tasks (44.4%), tight deadlines (39.0%), lack of support (35.9%), insufficient information (34.1%), and unclear expectations (30.9%). Thus, workplace stress significantly reduces organizational engagement and highlights the importance of targeted stress management strategies in SMEs.

Keywords management, behavior, commitment, stress, employee, SME

JEL Classification J24, J28, D23, L20

INTRODUCTION

In a social interaction such as employment, it is expected that both the employer and employee derive mutual benefits from each other. Management's goal is to establish security and trust (Mohamad et al., 2022). The social and emotional support provided by management deepens the commitment of employees. Stressful situations can lead to mistrust, resulting in an unbalanced relationship between organizations and their employees (Chang et al., 2022). Employees who persevere are capable of performing even when under stress.

Workplace stress is a complicated phenomenon that has a significant impact on both individuals' well-being and organizations' functioning. The combination of job requirements (amount of work, complexity, and difficulty of tasks), decision-making freedom (the individual's autonomy and the extent to which they have the opportunity to influence their work processes and decisions), and social support (provided by managers and colleagues) influences employees' stress levels. Workplace stress can be caused by a number of factors, including an unpleasant atmosphere, co-workers and managers, unclear job expectations, excessive responsibility, low pay, job insecurity, lack of professional development and career opportunities, unexpected changes, unrealistic deadlines, dangerous conditions, significant workload, long working hours, and little feedback. Workplace stress influences the behavior of individual employees and the overall performance of the organization. It is essential to identify sources of stress and to determine their impact on employee behavior. Even within the same company, employees in different occupations may perceive and respond to workplace stress in various ways.

1. LITERATURE REVIEW

The concept of organizational commitment has various interpretations; mainly, it is explained as a psychological connection between an employee and an organization. Commitment was related to attachment and loyalty to the workplace and considered crucial in enhancing organizational productivity (Becker, 1960; Kanter, 1968). Nevertheless, organizational commitment had different interpretations. Thus, daily routine develops the habit of going to the same place and communicating with the same people (Buchanan, 1974). On the other hand, they take binding actions, such as making a promise (Salancik, 1977). Mowday et al. (1979) consolidated that there are three primary states of commitment at work: acceptance of values and goals, willingness to contribute, and desire to secure the workplace.

Further studies systematize existing research. Firstly, a three-component model was proposed based on affective, continuance, and normative commitment types (Allen & Meyer, 1990). The components related to emotional attachment, side bets, and moral obligation (Meyer & Allen, 1991; Roy et al., 2023; Wijaya, 2023). However, Cohen (1996) noted that the model had weak explanatory power due to fuzzy factors, preventing clear clustering of measurements. Moreover, according to Brierley (1996), the three components actually measure both organizational and professional commitment. Swailes (2002) stated that measuring a vast range of factors does not provide a clear understanding of the results. The model was described as vague because the results did not explain to what extent an employee is attached to the organization or to their professional identity.

Some studies have noted that organizational commitment must be considered comprehensively. According to Mathieu and Zajac (1990), larger organizations can have a dual effect. It can be difficult to develop an emotional attachment to the organization. Yet, continuance commitment in large organizations is stronger, as employees value the security provided by social benefits, pensions, and career opportunities. Meyer et al. (2002) found that these three components have different predictors and lead to dissimilar consequences: affective commitment is closely associated with job satisfaction and high performance; continuance commitment mainly reduces turnover, but is not accompanied by an increase in productivity; normative commitment is expressed in a sense of duty and loyalty. Subsequently, Meyer and Parfyonova (2010) proposed a distinction between the normative component as a moral obligation and as a duty of retribution. This distinction explained why normative commitment is associated with positive effects in some cases (when moral motivation predominates), and with neutral or negative effects in others (when a sense of forced duty exists).

Organizational survival depends on employee commitment. Certain demographic characteristics, including educational attainment, age, and marital status, are significant determinants of employee commitment. Employee commitment largely depends on the organizational culture, including the organization's vision, mission, and goals (Tan & Antonio, 2022). Organizations with committed employees are attractive to talented individuals. The commitment to the organization is the result of a two-way process, whereby, on the organizational side, it is possible to encourage employees' productivity, increase their willingness to act, and strengthen their confidence by providing suitable working conditions.

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Nevertheless, the position in the workplace, working time, and the satisfaction of the employee's basic needs are important aspects (Hussein et al., 2022; Molnár & Csehné Papp, 2024). High satisfaction and productivity minimize turnover, while employee initiatives contribute to overcoming organizational difficulties and fostering long-term relationships within teams and the wider organization (Song et al., 2023; Kőműves et al., 2024). Developing and sustaining organizational commitment requires not only attracting but also retaining qualified employees by creating conditions that support motivation and well-being in the workplace (Czeily et al., 2024).

Building employee commitment is a key organizational task. Several studies consider organizational efforts to increase employee commitment a significant factor, especially in the private sector. Greater employee commitment leads to an increase in organizational performance and satisfaction by providing various support and benefits to their employees (Nguyen & Tran, 2021; Haryanto et al., 2023). Organizations should express interest and involvement in the personal lives of employees by considering the individual interests and development of each employee (Lazar et al., 2022). Based on the experience of small and medium-sized businesses, such involvement enables employees to identify with the organization and develop a deep commitment, which also strengthens retention (Pramudya & Schmuck, 2022). Nkansah et al. (2023) demonstrated that workplace resources, including flexibility and autonomy, tools provided, and social support, were crucial in enhancing employee engagement among SMEs in Ghana during the pandemic. Domokos and Baracskai (2021) and Hasnidar et al. (2023) stated that the atmosphere of trust is the cornerstone of commitment to the organization. Moreover, the quality of trust-building initiatives, such as open communication and ethical human resource management, is the foundation of continuous commitment (Kim et al., 2023; Radjab et al., 2024). In this way, employees know they can count on one another (Alberca et al., 2023). Employees perform tasks precisely and are motivated to maintain high standards, thereby demonstrating commitment to the organization (Garai-Fodor & Jäckel, 2024).

Along with factors that promote commitment, work stress also has a significant impact. It is seen as a consequence of poor work organization. Nevertheless, it was stated that workplace stress results from an imbalance between job expectations and job resources (Karasek & Theorell, 1990; Alzadjali & Ahmad, 2024). In crisis conditions, human resource practices that emphasize pre-crisis commitment and institutional trust can buffer stress and sustain employee engagement (Chang et al., 2022; Obuobisa-Darko et al., 2023). Mohamad et al. (2022) noted that in high-risk industries, weak crisis communication can further exacerbate stress and erode employee engagement. The workplace stressors include poor workplace relationships, uncertainty, raising children, time pressure, and the physical and mental state, as well as the blurring of boundaries between work and private life. Aras et al. (2024) found that blue-collar and white-collars workers assess job stress differently, with those in white-collar jobs tending to feel more insecure, while those in blue-collar jobs often experience more role conflict. At the same time, physically demanding working conditions, excessive workload, and deadline pressure doubled the risk of anxiety in white-collars workers compared to blue-collar workers. Batbold and Pu (2024) found severe stress levels among manual workers, often due to physically demanding working conditions, lower income, and limited mental health support or career development opportunities. These factors can contribute to increased stress, financial uncertainty, and a lack of professional satisfaction.

Research on the consequences of work stress covers the personal well-being of employees, organizational performance, and differences between occupational groups. Work stress can have many negative consequences, including employee burnout, turnover, and decreased commitment and performance (Alzadjali & Ahmad, 2024; Pei et al., 2024). As a result, employees are pushed to avoid work (Hutama et al., 2024; Fehintola et al., 2024). Gultom et al. (2024) and Maira and Gopar (2024) confirmed that high stress, in interaction with low motivation or poor work discipline, undermines satisfaction and performance. White-collars workers are much more stressed than blue-collar workers, influenced by, among other things, demographic (age, gender, educational level), workplace

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(type of job, work experience), and lifestyle (smoking, marital status) factors (Batbold & Pu, 2024; Eftekhari et al., 2025). According to Grasshoff et al. (2024), stress differs between white- and blue-collar workers, with physical stress being higher in physically demanding jobs, while psychosocial and emotional stress are more significant in intellectually demanding jobs, and gender differences intensify these inequalities.

The conducted literature review revealed that multiple factors, including structural characteristics, individual demographics, and workplace resources, influence organizational commitment; however, its conceptual structure remains inconsistent. Previous studies have shown that stress affects white- and blue-collar employees differently; however, the evidence remains inconclusive.

The aim of the study is to assess the impact of stress factors on employee commitment and to identify differences in stress perception between mental and manual workers in the Hungarian small and medium-sized enterprise sector. Based on the literature, the following hypotheses were formulated in order to achieve the research goals:

H1: *There is a significant relationship between perceived stress at work and employee engagement.*

H2: *White-collar and blue-collar employees have different perceptions of workplace stress.*

2. METHODS

The study aimed to assess employee commitment in the Hungarian SME sector under organizational stress. The analysis followed the logic of deductive research, which begins with a hypothesis and seeks to test its validity through the collection and analysis of data. The study applied a mixed design, combining secondary and primary research. Through primary research, a quantitative research method, and a questionnaire survey, data were collected.

Data collection was conducted in a confidential manner, in compliance with GDPR regulations. Participation in the survey was voluntary, and the data are for research purposes only. The questionnaire was divided into two parts. The first part inquired about demographic data, position within the organization, and the time spent in the organization. The second half of the questionnaire included questions about employee commitment. The questionnaire included closed, semi-closed, and open-ended questions, comprising a total of 20 questions (Kenzhegulova & Karacsony, 2025).

The scale-type questions were evaluated on a 5-point Likert scale, where 1 indicated "slightly or not at all typical" and 5 indicated "completely typical." In relation to scale-type questions, Hotelling's T-squared multivariate statistical test was applied, which shows, at a significance level ($p < 0.05$), whether the means of two or more groups are significantly different from each other.

A heterogeneous snowball sampling method was used. A specific sample size was not determined. The goal was to obtain the largest possible number of valid samples. The target group for the research was employees in the Hungarian SME sector. A total of 223 responses were received, which is approximately 75% of the questionnaires sent out.

The validity of the hypotheses was examined in IBM SPSS Statistics 23. Prior to analysis, the dataset was standardized using IBM SPSS Statistics 23, which ensured the comparability of all variables. After running the Kolmogorov-Smirnov normality test, it was determined that the data did not come from a normal distribution ($p = 0.000 < 0.05$); therefore, nonparametric statistical tests were used to verify the validity of the hypotheses.

To verify the first hypothesis, the Jonckheere-Terpstra (J-T) rank-based nonparametric test was applied, as both variables were measured on an ordinal scale and the assumption of group independence was met. In connection with the statistical test, it is crucial to verify that the main assumptions are met. All assumptions of the J-T test (ordinal measurement, group independence, and predefined hypothesis direction) were verified and fulfilled. The test confirmed a statistically detectable trend ($p < 0.05$).

To verify the second hypothesis, the Mann-Whitney U test was used, suitable for comparing two independent groups when the data are not normally distributed. In connection with the statistical test, it is crucial to verify that the main assumptions are met. All assumptions of the Mann–Whitney U test (ordinal dependent variable, two independent categorical groups, group independence, and non-normal distribution) were verified and fulfilled. The test revealed a significant difference between the groups ($p < 0.05$).

The demographic data for the sample are summarized in Table 1.

Table 1. Socio-demographic characteristics of the sample

Variable	Category	Percentage
Gender	Male	56.5
	Female	43.5
Age	18–30	38.6
	31–45	49.3
	46 and above	12.1
Residence	Small city	33.6
	City	52.0
	Capital (Budapest)	14.3
Marital status	Married	47.1
	Single	14.8
	In relationship	35.0
	Other	3.1
Position	White-collar	50.7
	Blue-collar	49.3

The survey was conducted between March and May 2025 in Hungary. In terms of gender distribution, male employees accounted for 56.5% and female employees for 43.5%, indicating no significant over- or under-representation of either group. Using cluster analysis, the employees were divided into four age groups: 49.3% of the 31–45 age group, 38.6% of the 18–30 age group, and 12.1% of the 46 and older age group. In terms of distribution by place of residence, 52.0% of the employees live in larger cities, 33.6% in medium and smaller cities, and 14.3% in the capital (Budapest). Regarding the distribution by marital status, 47.1% of employees are married, 35.0% are in a relationship, 14.8% are single, and 3.1% indicated other marital status. Some of the employees indicated that they are divorced or widowed. Regarding the job role at work, 50.7% of employees are in white-collar and 49.3% are in manual employment.

3. RESULTS

To test the hypotheses put forward, methods of nonparametric statistics and multivariate analysis were used. The use of nonparametric criteria is due to the sample structure and the need to identify stable trends in the distribution of organizational commitment and perceived stress indicators. The analysis of empirical data aims to identify patterns that correspond to the theoretical model, as well as to check for differences between the study groups. The analysis assesses the average levels of stress and commitment, tests the direction of these relationships, and compares employees' perceptions of stress across various professional categories. A separate segment of the analysis is devoted to identifying specific stressors and their impact on the behavioral attitudes of employees primarily engaged in intellectual work. Further analysis results were obtained using specifications based on the SPSS program, where "Adj. Sig." represents the adjusted p-value, i.e., the corrected significance level applied to evaluate these differences.

As presented in Table 2, the differences between the mean values of the variables were statistically significant according to Hotelling's T^2 criterion.

Table 2. Hotelling's T^2 test

Hotelling's T^2	F	df1	df2	Sig.
24.264	12.077	2	221	.000

At the significance level of Sig. = .000 (equivalent to $p < 0.001$), the result of Hotelling's T^2 test (T^2 = 24.264; F = 12.077) confirms statistically significant differences between the mean values of responses on the scale-type variables. The obtained F-value exceeds the critical threshold, indicating consistent differences in the distribution of responses.

The results of Hotelling's T^2 test revealed that respondents perceived work stress and organizational commitment differently. The F-statistic values confirm the validity and consistency of the responses, indicating that participants were not responding randomly but were reflecting their own attitudes and experiences.

An assessment of the overall distribution structure of values for stress and commitment indicators is presented in Table 3.

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Table 3. Descriptive statistics of stress and commitment

Variable	N	Mean Mn.	Std. Deviation	Percentiles		
				25th	50th (Median)	75th
Stress level	223	3.07	0.946	2.00	3.00	4.00
Commitment	223	3.60	1.695	2.00	4.00	5.00

The perceived stress level, according to the results, averaged 3.07, corresponding to a neutral or moderate level. The standard deviation (0.946) indicates relatively homogeneous responses among participants. The median value was 3.00, with 25% of respondents rating no higher than 2.00 and another 25% rating no lower than 4.00, suggesting a symmetric distribution with limited skewness toward extreme values.

The level of organizational commitment was rated above average, with a mean value of 3.60. A considerable spread in responses is observed, as reflected by the high standard deviation (1.695). The median was 4.00, with the lower quartile at 2.00 and the upper quartile at 5.00, indicating a wide range of perceptions, including both low and maximum levels of commitment.

Table 4 reflects the results of testing hypothesis H1 using a nonparametric test for the presence of an ordered trend between variables.

At a significance level of $p = 0.001$, the standardized test statistic ($z = -3.230$) exceeds the critical threshold, confirming a statistically significant ordered association between perceived stress and organizational commitment. The observed J-T statistic (8679.000) in a sample of 223 responses reflects a structured trend across ordinal categories, supporting the presence of a non-random pattern in the distribution of responses. Therefore, stressors experienced at work appear to systematically reduce employees' loyalty, suggesting that prolonged exposure to workplace stress may weaken organizational commitment.

To clarify the differences between groups in stress and commitment levels, paired comparisons were conducted (Table 5).

Several pairwise comparisons confirmed significant differences in stress levels depending on employees' organizational commitment. All z-statistics in the comparisons exceeded the critical value for $p = 0.05$ after adjustment, confirming statistically significant contrasts between low and high commitment groups.

Respondents with the highest reported stress level (SL = 5) showed significantly lower organizational commitment compared to those with moderate (L = 3; adjusted $p = 0.030$) and low (L = 2; adjusted $p = 0.030$) levels of commitment. Similar patterns were observed for participants with SL = 4, whose commitment levels also significantly differed from those in groups L = 3 (adjusted $p = 0.016$) and L = 2 (adjusted $p = 0.018$).

A consistent inverse relationship was identified: increased stress levels corresponded to decreased organizational commitment. All comparisons yield-

Table 4. Jonckheere–Terpstra test for stress and commitment

N	Observed J–T Statistic	Mean J–T Statistic	Std. Deviation of J–T Statistic	Std. J–T Statistic	Asymp. Sig. (2-tailed)	Grouping Variable
223	8679.000	10356.500	520.848	–3.230	0.001	Commitment

Table 5. Pairwise comparisons (Jonckheere-Terpstra test)

Sample 1, Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.
SL=5; L=3	309.000	98.084	–2.748	0.003	0.030
SL=5; L=2	173.000	59.964	–2.752	0.003	0.030
SL=4; L=3	1923.500	253.947	–2.940	0.002	0.016
SL=4; L=2	1070.000	168.398	–2.910	0.002	0.018

SL: Stress level
L: Commitment
The significance level is p = 0.05

Table 6. Ranks of stress perception by occupational category

Variable	Position	N	Mean Rank	Sum of Ranks
Stress level	White-collar	113	121.61	13742.00
	Blue-collar	110	102.13	11234.00

Table 7. Mann–Whitney U test for stress perception differences

Total N	Mann–Whitney U	Wilcoxon W	Test Statistic	Standard Error	Asymp. Sig. (2-tailed)
223	5129.000	11234.000	5129.000	457.994	0.018

ed negative standardized test statistics, indicating that as stress increased, commitment significantly decreased across the compared groups. The findings demonstrate that organizational commitment is highly sensitive to stress levels, with high and very high stress associated with the lowest commitment scores. This sharp decline suggests that increased stress may rapidly translate into employee disengagement and potential turnover.

To assess the differences in stress perception between white-collar and blue-collar workers within the framework of hypothesis H2, the Mann–Whitney test was used (Table 6).

The mean rank of the white-collar group (121.61) exceeds that of the blue-collar group (102.13); therefore, the level of perceived stress is higher among white-collar employees. The difference in the sum of ranks (white-collar: 13,742.00; blue-collar: 11,234.00) represents a systematic divergence in the distribution of scores across occupational categories. White-collar employees demonstrate higher stress perception ranks compared to blue-collar workers, reflecting a stable difference in response distributions between the groups.

Physical labor (blue-collar) is often perceived as less stressful, and workers in this category tend to rate their stress levels lower. Office work (white-collar), which involves paperwork, constant presence at one workstation, reporting, and administrative duties, is perceived as more stressful. In other words, according to the data, office workers experience stress more often and to a greater degree than manual laborers.

The final parameters of the Mann–Whitney criterion, reflecting the difference in the level of perceived stress between the two groups, are presented in Table 7.

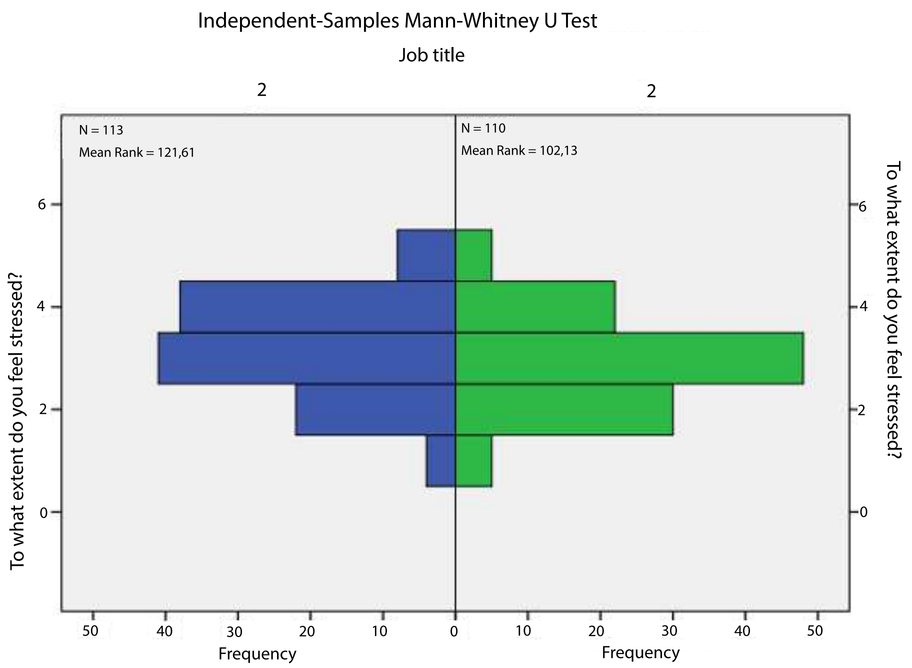

Figure 1. Pairwise comparisons (Mann-Withney U Test)

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The value of 5129.000 was obtained, with a standardized test statistic of –2.371 and an asymptotic p-value of 0.018. At the conventional threshold ($p < 0.05$), the result meets the criterion for statistical significance. The distribution of perceived stress levels differs between white-collar and blue-collar employees, supporting the presence of a group-level distinction in stress perception. The result confirms the validity of hypothesis H2. Workers performing intellectual work are more stressed than workers performing manual work.

Next, a comparison of the response categories on the stress scale for the white- and blue-collar groups is shown in Figure 1.

The distribution of responses on the perceived stress scale is presented by occupational groups: the left side (white-collar workers, N = 113, mean rank = 121.61) and the right side (blue-collar workers, N = 110, mean rank = 102.13). A higher frequency of responses in the upper categories of the scale is observed among the former group, visually confirming the differences in perceived stress levels between employment categories previously identified through statistical analysis.

Office workers systematically perceive their stress levels as being higher than those of blue-collar workers. White-collar workers exhibit a greater susceptibility to psychological stress factors. This pattern may be related to the nature of office work: constant presence at one workstation, high-intensity information flows, strict deadlines, regular reporting procedures, and management oversight increase tension and subjective feelings of overload. In contrast, blue-collar workers tend to demonstrate a lower degree of stress because physical work involves a more clearly structured task, the ability to shift attention during work, and less dependence on administrative constraints.

Thus, the obtained data confirm that the differences between employment categories are stable and systematic: office workers perceive stress at a higher level, while manual workers experience less pronounced stress.

To detail the factors causing stress in knowledge workers, a comparative analysis was conducted to examine the frequency and intensity of stressors' impact on organizational commitment levels (see Table 8).

Based on a comparative analysis of modal values and the share of respondents reporting high stressor intensity, all sources of workplace stress were grouped into two categories: (1) stressors with a high level of perceived stress and a strong impact on organizational commitment, and (2) stressors with relatively low perceived stress or limited influence on commitment levels.

The first category includes overly complex tasks (44.4%), tight deadlines (39.0%), lack of support (35.9%), insufficient information (34.1%), inadequate feedback (32.7%), unclear expectations (30.9%), and inappropriate relationships with management (29.6%). These factors are characterized by high modal stress levels (Md = 4), reflecting a consistent and intense perception of pressure among white-collar workers. Each of these conditions correlates with a notable decrease in organizational commitment.

Table 8. Stressors affecting white-collar workers

Workplace stressor	Stress level Modus (Md.)	Impact on commitment	Percentage
Too easy a task	Weak (Md.=1)	Low	43.5
Too difficult a task	Significant (Md.=4)	High	44.4
Unfavorable physical environment	Weak (Md.=1)	Low	26.9
Inappropriate manager-employee relationship	Significant (Md.=4)	High	29.6
Conflict with colleagues	Below average (Md.=2)	Low	26.9
Lack of support	Significant (Md.=4)	High	35.9
Unclear expectations	Significant (Md.=4)	High	30.9
Limited career opportunities	Significant (Md.=4)	High	23.8
Lack of pay and benefits	Significant (Md.=4)	High	28.3
Lack of information	Significant (Md.=4)	High	34.1
Tight deadlines	Significant (Md.=4)	High	39.0
Lack of feedback	Medium (Md.=3)	average	32.7

The second category comprises unfavorable physical environments (26.9%), conflicts with colleagues (26.9%), inadequate pay and benefits (28.3%), and limited career advancement opportunities (23.8%). Compared to the first group, these factors indicate lower perceived stress levels, although some instances of elevated tension are observed. Tasks considered too easy (43.5%) appear frequently, but the associated stress remains low (Md = 1), with no observable impact on commitment.

The most significant reductions in organizational commitment are associated with stressors linked to managerial deficiencies, lack of communication support, and ambiguity in task expectations. The results indicate that for white-collar employees, the organizational and management environment, rather than material working conditions, is the primary source of stress. It is the lack of support, information, feedback, and clarity of expectations that has the most detrimental effect on commitment.

4. DISCUSSION

A higher level of stress was revealed among white-collar employees. The primary source of pressure is from internal organizational conditions, including managerial inconsistency, lack of feedback, limited support, and unclear role expectations.

Firstly, the results revealed that apart from emotional state, stress impacts the behavior of workers, including the decision to stay in the organization. However, the findings of Alzadjali and Ahmad (2024), Hutama et al. (2024), and Grasshoff et al. (2024) were primarily based on the emotional impact, suggesting that stress increases emotional tension and leads to burnout. Ultimately, a negative emotional state reduces engagement and commitment. However, we revealed that stress is a functional predictor of behavioral disengagement, expressed in the reduced willingness to maintain employment relations.

Secondly, existing studies mostly focused on identifying whether a worker was experiencing stress. Therefore, current results supported the findings of Eftekhari et al. (2025), Aras et al. (2024), and Corrente et al. (2024) that the level of perceived stress between white-collar and manual labor employees (blue-collar) differs. In most works, stress was examined in an aggregated manner, without detailing its sources and their behavioral significance. However, we provided a deeper analysis to reveal the sources of stress. The primary source of pressure is from internal organizational conditions, including managerial inconsistency, lack of feedback, limited support, and unclear role expectations. The dominant determinants of workplace stress in knowledge-intensive occupations originate from internal misalignments within organizational structures. Key drivers of declining employee commitment include managerial shortcomings and the absence of structured internal communication. Weak interaction with supervisors, unclear task distribution, and a lack of feedback consistently provoke negative responses among white-collar employees. In contrast, material working conditions and the physical environment hold a secondary position and exert less influence on employee behavior.

Thirdly, for employees in knowledge-intensive occupations (i.e., white-collar), a hierarchy of stressors was identified, including cognitive workload, disruptions in information flow, and managerial uncertainty. Previous research has considered stress factors without structuring them based on their level of impact and has not related them to negative organizational commitment (Karasek & Theorell, 1990). Some considered communication as the main factor. Thus, Mohamad et al. (2022) discussed crisis communication, while Domokos and Baracskai (2021), Hasnidar et al. (2023), and Kim et al. (2023) discussed internal communication. Among the stress-inducing triggers for white-collar employees, the dominant group includes excessive complexity tasks, rigid time constraints, insufficient managerial support, limited access to operational information, unclear performance expectations, and a deficit of evaluative feedback. The listed factors combine high frequency with notable behavioral impact, manifesting in decreased indicators of organizational involvement.

Unlike approaches that prioritize personal and demographic variables (Hussein et al., 2022; Haryanto et al., 2023), the current model is based on differences in the type of labor function. The application of a functional criterion in sample stratification excluded the influence of individual variability, focusing instead on the institutional characteristics of the environment in which employees' behavioral decisions are formed.

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CONCLUSION

The aim of the study is to assess the impact of stress factors on employee commitment and to identify differences in stress perception between mental and manual workers in the Hungarian small and medium-sized enterprise sector. The analysis confirmed a stable negative association between work-related stress and employee commitment. For knowledge-intensive roles, the hierarchy of stressors was formed by cognitive load, disruption of information flows, and managerial uncertainty. The identified structure of stress factors demonstrated that the content of work, managerial architecture, and availability of feedback mediate their impact on commitment. The study found that the institutional and functional characteristics of the work environment have a stronger impact on commitment than individual demographic attributes. Objective measurement methods should be developed to account for functional and institutional determinants of commitment, avoiding sole reliance on self-reported emotional states.

Preventing and mitigating stress requires structural and process-level measures, including improving workplace culture, allocating equitable workloads, enhancing internal communication, and establishing clear feedback mechanisms. Improved information flows and managerial accessibility for white-collar employees, along with better resource provision and precise task definition for blue-collar employees, reduce stress-related declines in commitment and strengthen organizational stability.

Future research should extend the analysis to include longitudinal data and cross-country comparisons, capturing dynamic patterns of stress and commitment across different labor markets.

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