“Work engagement challenges of employed master’s students and directions for improvement: The case of Georgia”

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WORK ENGAGEMENT CHALLENGES OF EMPLOYED MASTER'S STUDENTS AND DIRECTIONS FOR IMPROVEMENT: THE CASE OF GEORGIA

Abstract

In Georgia, employed master's students face a unique conflict between professional and academic roles, which can critically undermine their work engagement and performance. This study aims to identify the challenges to work engagement faced by employed master's students in Georgia and to explore practical strategies for improvement. A cross-sectional, anonymous survey of 437 employed master's students was conducted in the spring semester of 2023 across major universities in Tbilisi, Kutaisi, Batumi, and Telavi, ensuring national representativeness. Data were analyzed using SPSS Statistics via Pearson's correlation, ANOVA, and regression analysis. The results quantitatively demonstrate that work engagement is strongly correlated with workplace learning opportunities (r = .702), supervisory responsibility (r = .704), and, most significantly, with high-quality supervisor communication (r = .989) and democratic management styles (r = .809). The study confirms that engagement is significantly higher when students feel their opinions are valued and when supervisors effectively communicate organizational goals. In conclusion, the findings provide empirical evidence that modifying workplace management practices, specifically by enhancing supervisory communication, adopting democratic styles, and offering developmental opportunities, can significantly improve the work engagement of employed master's students. These insights offer clear directives for employers, universities, and policymakers seeking to better support this key demographic group.

Keywords students, higher education, motivation, challenges, work engagement, performance

JEL Classification M12, I23, J24, M54

INTRODUCTION

Employed graduate students in Georgia face a unique conflict between professional and academic roles, which can significantly hinder their work engagement and performance. This is a pressing issue because high employee engagement is a critical source of competitive advantage for organizations, leading to positive individual and business outcomes (Bedarkar & Pandita, 2014; Saks, 2006). Moreover, organizations reach their full potential only when employees are emotionally engaged. Regardless of the field, employee engagement – alongside job satisfaction, self-evaluation, and confidence in their ability – also affects organizational outcomes (Chhabra, 2018; Harter et al., 2002).

However, a significant and growing group – employed students – must balance the demanding roles of full-time employee and student, a dual

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commitment that creates tension between job and study duties. This conflict can undermine their engagement, well-being, and performance in both areas. In Georgia, as elsewhere, higher education and the labor market often operate separately, failing to take into account the reality of the student–employee life.

1. LITERATURE REVIEW AND HYPOTHESES

The concept of engagement in organizational management settings was first introduced by Kahn (1990). He considered Freud's, Goffman's (Ferguson, 2007), Merton's, Slater's, Smith and Berg's, Alderfer's, and Maslow's theories (Kular et al., 2008).

Until today, there have been differences of opinion among scientists regarding the content of the terms: engagement, employee engagement, work engagement, organizational engagement, obligation (Saks, 2006), motivation, and satisfaction (Mone & London, 2018).

Employee engagement is defined as simply "passion for work" (Truss et al., 2006). Building on this, Kahn (1990) defined engagement as self-expression in the work role physically, cognitively, and emotionally, as well as being present psychologically and physically in the role, entailing mental and emotional involvement in work for organizational interests. Others define employee engagement as having cognitive, emotional, and behavioral components (McCown, 2023), as well as employees' mental concentration and focus on work (Kwon & Kim, 2020; Shuck et al., 2016). Schaufeli and Salanova (2011) considered work engagement as employees' relationship with work. In another definition, it is a strong emotional attachment to work that motivates individuals to act and invest their energy and effort for better results. Overall, engagement is defined as an activated state of a person that makes a difference in outcomes.

Similarly, there is disagreement regarding the identification of the determinants of engagement. Kahn sought to identify the determinants of "personal disengagement" and "personal engagement" in the work role (May et al., 2004) and concluded that these factors are: meaningfulness, safety, and availability (Kahn, 1990). Holbeche and Springett (2004) associate engagement with a shared sense of destiny and purpose. Maslach et al. (2001) identified six determinants that lead to engagement: workload, control, rewards and recognition, community and social support, perceived justice, and values. According to Ismail et al. (2018), it is the developed organizational culture and justice that promote team cohesion, work engagement, and person-environment (P-E) fit.

The relationship between engagement and the fair environment of the organization is of serious interest to scientists (Rahman & Karim, 2022). In turn, this direction has deep roots – almost 20 centuries of history (Stamenkovic et al., 2018). In other sources, 3 main determinants of job engagement are communication, work-life balance, and leadership. The scientific literature also confirms the relationship between the leader's behavior and work engagement, showing that leadership style affects engagement (Gemeda & Lee, 2020) and that leaders and HR managers have the main responsibility in this regard (Bedarkar & Pandita, 2014). Minelgaitė et al. (2018) emphasize a leader's role, his/her social skills in the formation of the organizational spirit, especially in the post-Soviet space.

Researchers are also interested in the determinants of engagement, particularly generational differences. Across generations, there are differences in personality and motivational drivers (Ismail et al., 2016; Wong et al., 2008). Since the object of our study is Generation Z, it is worth noting that Generation Z's work engagement is influenced by a supportive supervisor, work environment, and employee relations (Nguyen et al., 2023).

Investing in AI technology has an impact on employee engagement and performance (Malik et al., 2022; Rao et al., 2020). Positive connections have indeed been established between them; however, the inclusion of technologies in work processes also increases employees' sense of insecurity (Prentice et al., 2023). Also, among the factors hindering engagement, the increase in specializa-

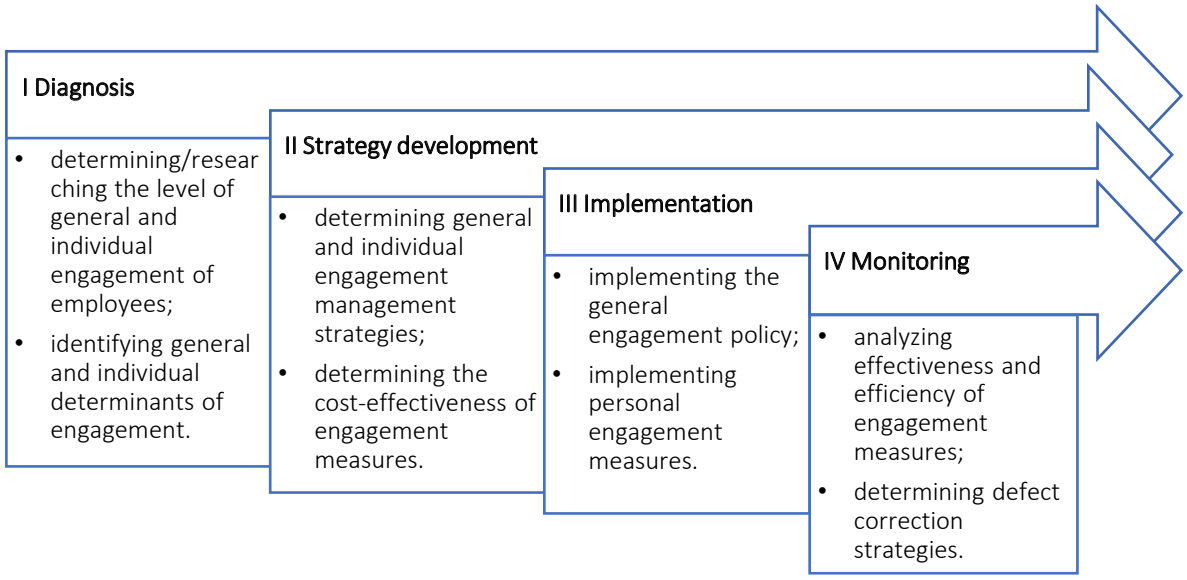

Figure 1. The engagement management process model

tion is considered, since when performing specialized processes, employees only participate in fragments of organizational processes, and especially low-level employees do not see the full picture, which lowers the level of their awareness and involvement (Udin et al., 2019).

Since there is no agreement between scientists and practitioners regarding the definition of engagement, it becomes difficult to develop a unified protocol of its determinants and research methods. Accordingly, this makes it difficult to develop a unified model of its management. Because employee engagement is not universally defined or measured, it becomes impossible to define its management methods or to determine which strategies improve it (Ferguson, 2007).

Despite the absence of a unified model, the analysis of scientific literature enables us to propose a conceptual model of the engagement management process, illustrated in Figure 1.

In the first stage, the level of engagement in the organization is diagnosed, both in general, at the organization level, and at the individual level, and the relevant determinants are defined.

In the second stage, alternative strategies for improving engagement at the general and individual levels are defined and then evaluated and selected in terms of cost-effectiveness. At this stage, existing engagement models can be considered, such as The Zinger Model of Employee Engagement, Katharine Esty and Mindy Gewirtz Employee Engagement Model, Aon Hewitt's Engagement Model, The 555 Model for Employee Engagement, House of Engagement Model, and the WIFI model of Engagement (Perumal & Umarani, 2021).

In the third stage, selected strategies are implemented to create a generally favorable environment for engagement and, at the same time, to have an appropriate impact on individual engagement.

In the fourth stage, the effectiveness and efficiency of the implemented measures are analyzed, flaws are detected, and the measures are refined and improved. After that, the cycle is repeated. The stages of engagement management are an accompanying, continuous process of the organization's functioning.

While these theoretical models provide a general framework, the specific context of employed students in Georgia presents unique practical challenges. In particular, when studying the work engagement of master's students employed in Georgia, the context in which employed students have to study and work in Georgia should be taken into account. The study of the time budget of master's students in detail reveals that most of them work full-time (9 a.m. – 6 p.m.), and there are also cases of night shift work, during which they work

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from 11 p.m. to 8 a.m. At universities, studies in the master's program take place around 5 p.m. – 11 p.m. (Gulua & Kharadze, 2017, 2022). The transportation time during peak hours should also be taken into account, which is approximately 1 hour. Here it is seen that due to time discrepancy, the student has to either leave work at a certain time or miss lectures and seminars. Also, studying master's subjects during work or breaks hurts engagement in both work and the educational process. Not to mention the degree of their fatigue and stress, food restriction, lack of free time, lack of time to study, etc. This analysis highlights the difficulties faced by Georgian higher education and its weak alignment with the needs of the labor market (Gulua, 2018).

Therefore, the aim of this study is to identify the challenges to work engagement faced by employed master's students in Georgia and to explore practical strategies for improvements. Based on this theoretical and contextual foundation, the following hypotheses are proposed:

H1: High responsibility for the work of others leads to higher engagement in the work.

H2: There is a positive connection between workplace learning opportunities and employee motivation and engagement.

H3: A democratic management style and consideration of employees' opinions are positively related to work engagement.

H4: High-quality communication with a supervisor is fundamental for employees' adoption of organizational goals and their engagement.

2. METHODS

This study employed an anonymous questionnaire to collect data. The study was conducted in accordance with ethical research standards. Participation was voluntary and anonymous, with informed consent obtained from all respondents. The research protocol ensured the confidentiality of all data. The study design and procedures strictly followed the ethical principles for research involving participants. Prior to participation, all respondents were provided with information about the study's purpose and their rights, and their explicit informed consent was confirmed.

The questionnaire was developed drawing on established scales from Saks (2006) and Schaufeli and Salanova (2011), and adapted to align with the specific objectives of this study. The final questionnaire consisted of 42 closed-ended questions, which were organized into five thematic blocks.

Block 1: This block gathered general statistics (gender, Grade Point Average (GPA), employment status (Q41 and Q42) and assessed the respondent's overall attitude toward their university and current job (Q1-Q7).

Block 2 (My Job): This block evaluated the respondent's feelings toward their role, including job satisfaction, level of engagement in work processes, and proactivity (11 questions).

Block 3 (My Team): This block gauged respondents' perceptions of their colleagues, including team dynamics, co-workers' engagement, and their collective attitude toward work (9 questions).

Block 4 (My Supervisor): This block measured the respondent's attitude toward their direct supervisor, focusing on the quality of communication and mutual support (4 questions).

Block 5 (My Organization): The final block determined how valued the respondent feels within the organization and their intention to remain with the company long-term (9 questions).

Data were collected during the spring semester of 2023 across various regions of Georgia, including the capital, Tbilisi. This period was selected to capture a standard academic workload, and the geographic spread ensures representation from the country's primary university centers. The sample size was determined using a sample size calculator to ensure validity. The study population was defined as all 47,816 master's students enrolled in both state (22,426) and private (25,390) HEIs in Georgia (National Statistics Office of Georgia, 2023). Although the target subgroup of employed students is smaller, this conservative population figure was used to calculate a robust

sample size. For a population of 47,816, a confidence level of 95%, and a margin of error of 5%, the required sample size is 382 students (assuming a conservative population proportion of 50%). These parameters are summarized in Table 1.

Table 1. Parameters for sample size calculation

Parameter	Value
Sample size:	382
Confidence Level:	95%
Margin of Error:	5%
Population Proportion:	50%
Population Size:	816*

Note: * The total number of students with active status in the universities participating in the study (data provided by the university administrations).

Demographic characteristics and other general information of survey respondents are given in Table 2.

Table 2. Demographic, academic, and employment characteristics of survey respondents (N = 437)

Characteristic	Category	Number	Percentage (%)
Gender	Female	236	54
	Male	187	42.8
	Prefer not to say	14	3.2
Academic Performance (GPA)	3.0 or higher	109	24.9
	2.0 to 3.0	162	37.1
	2.0 or lower	100	22.9
	Not provided	66	15.1
Employment Level	High-level	78	17.8
	Medium-level	230	52.6
	Lower-level	127	29.1
	Not specified	2	0.5

The collected data were analyzed using SPSS Statistics. The analysis included a general frequency analysis and cross-tabulation. Furthermore, to assess data reliability and explore relationships between variables, we used Chi-Square tests, Cronbach's Alpha for internal consistency, Pearson Correlation tests, and linear regression analysis. The internal consistency of the questionnaire was determined to be 0.818 (Table 3), which is a good indicator.

Table 3. Reliability statistics

Cronbach's Alpha	N of Items
.818	42
Cronbach's Alpha if Item (GPI) Deleted	**N of Items**
.850	41

3. RESULTS

The study results reveal that master's students are largely employed and actively navigating the challenges of this dual role. Regarding career level, a significant majority of respondents are employed, with 78 holding high-level positions, 230 in medium-level roles, and 127 in lower-level roles; only 2 respondents did not respond (Question 1 (Q1)).

The intersection of work and study responsibilities is pronounced. A substantial number of students (253) find combining their job and studies "very tiring," while 151 find it "more or less" tiring, and only 28 consider it non-tiring (Q5). This fatigue is reflected in attendance, as 137 students reported missing lectures due to work, with a further 214 answering "more or less" (Q4). When forced to choose between academic and professional commitments, a clear majority (295 vs. 128) prioritized their job (Q3).

Despite these challenges, students demonstrate a strong commitment to their work. Most report reliable attendance, with 237 stating they are "not late" for work, compared to 148 who are "more or less" late and 50 who are late (Q7). Furthermore, 281 students stated they "do not miss" work, while 113 miss it "more or less," and only 41 miss it outright (Q6). This professional engagement is further evidenced by 146 students confirming they coordinate others' activities, though 153 were ambivalent ("more or less") and 134 said no (Q2). The responses to other questions are presented in Table 4.

To test the hypotheses, a correlation analysis was conducted between the measured variables. For H1, the analysis revealed a statistically significant, very strong negative relationship between an individual's role in coordinating others' activities within the work (Q2) and their tendency to miss work (Q6) ($r = -.704$, $p < .001$). An equally strong negative correlation was found between coordinating activities (Q2) and being late for work (Q7) ($r = -.705$, $p < .001$). Conversely, a very strong positive correlation was confirmed between missing work (Q6) and being late (Q7) ($r = .904$, $p < .001$). Therefore, the findings confirm Hypothesis 1. The ANOVA test for the linear regression also indicated that the overall model was statistically significant (Table 5).

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Table 4. Descriptive statistics of survey responses by thematic blocks (%)

No.	Questions	Agree	Agree more or less	Do not agree	Do not know	No answer
	My Job					
8	I have all the opportunities and resources to do my job well	52.6	37.8	7.8	1.6	0.2
9	Every day I see the positive results of my work	33.9	47.8	16.0	1.1	1.1
10	My work is appreciated by the organization	38.4	43.2	15.8	1.1	1.4
11	My organization trained me to be able to do the job well	53.5	32.5	12.6	1.1	0.2
12	I am motivated to achieve work goals	73.2	22.0	3.4	0.7	0.7
13	I am fully involved in work processes	74.1	19.7	4.8	0.9	0.5
14	I am excited about my work	24.7	49.9	23.1	1.6	0.7
15	My working day goes by very quickly because I am completely immersed in my work	50.1	35.2	12.4	1.8	0.5
16	I dedicate myself to my work every working day	36.6	42.8	14.0	6.2	0.5
17	When I am at work, I am fully focused on my work	69.3	26.5	3.2	0.7	0.2
18	I help my employees quickly deal with difficult situations	68.2	28.4	1.8	1.1	0.5
	My Team					
19	My employees take responsibility for the results	45.5	44.2	7.8	1.6	0.9
20	My employees respect me	80.5	16.5	1.8	0.7	0.5
21	Employees openly talk about what needs to be done to be more effective	61.8	27.9	8.9	0.5	0.9
22	My employees work hard during difficulties	46.2	41.9	9.6	1.6	0.7
23	Members of the organization determine opportunities and challenges	51.7	38.0	8.5	1.1	0.7
24	Employees take the initiative to help other members when needed	37.5	39.1	19.0	3.0	1.4
25	Members of the organization are ready to take on new tasks	44.9	38.9	13.5	2.5	0.2
26	Members of the organization are ready for changes	37.5	39.1	19.0	3.0	1.4
27	Employees try to spend their free time together	38.2	43.2	16.2	1.8	0.5
	My Supervisor					
28	The supervisor helps me realize how important my work is to the organization	56.5	34.3	8.0	0.7	0.5
29	It is easy to communicate with my supervisor	58.6	35.0	4.8	1.4	0.2
30	The supervisor creates all the conditions for motivation and energetic involvement in the work	44.2	43.5	11.0	1.1	0.2
31	My supervisor has high hopes for our team	51.9	34.1	5.7	6.9	1.4
	My Organization					
32	The vision and goals of my organization are very important to me personally	60.6	34.8	3.4	0.9	0.2
33	My organization provides good development opportunities	44.4	41.0	11.7	1.4	1.6
34	I see opportunities for advancement in my organization	45.1	39.4	12.8	2.1	0.7
35	They are interested in my opinions that affect my results and work	44.9	39.6	12.1	2.7	0.7
36	My organization cares about employees	41.2	42.3	14.0	1.8	0.7
37	I feel that my opinions are important to my organization	40.5	40.0	12.6	5.7	1.1
38	The employer takes into account that I am a student and offers me a flexible schedule	35.9	41.4	19.7	1.6	1.4
39	I recommend my organization as the best place to work	33.2	45.3	17.6	3.2	0.7
40	University (lecturers) take into account the situation of employed students	35.9	43.5	16.2	3.0	1.4

Table 5. ANOVA results for the regression model on supervisory responsibility

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18706.732	5	3741.346	85.383	.000
	Residual	18885.753	431	43.818		
	Total	37592.485	436			

Note: Dependent Variable: Q2. Predictors: (Constant), Q7, Q3, Q5, Q4, Q6.

It should be noted that using crosstabulation statistical analysis, the Pearson Chi-Square Test confirmed that the relationship between the above variables is reliable (0.000, less than 0.005).

For H2, a statistically significant, strong positive correlation was found between Q11 ("My organization trained me to do my job well") and Q13 ("I am fully involved in work processes") ($r = .702$, $p < .001$). A statistically significant, moderate positive correlation was also found between Q11 and Q12 ("I am motivated to achieve work goals") ($r = .571$, $p < .001$). These results confirm Hypothesis 2.

Furthermore, a linear regression analysis was conducted. The reliability (significance) of the regression model was confirmed by ANOVA (Table 6).

The significant relationships were further validated using crosstabulation and Pearson chi-square tests, which were also significant (0.000, less than 0.005).

For H3, the analysis revealed a very strong, positive correlation between employees' feeling that their opinions are valued (Q35) and their perception of colleagues' readiness to take on new tasks (Q25) ($r = .809$, $p < .001$). An even stronger correlation was found between employees' perception that leaders create motivating conditions (Q30) and their personal commitment to the organization's vision and goals (Q32) ($r = .989$, $p < .001$). These results provide strong support for Hypothesis 3.

The high *R*-squared value of 0.978 (Table 7) indicates that the independent variables (Q25, Q32, Q35) explain 97.8% of the variance in the dependent variable. This suggests the model's estimates are highly aligned with the observed data.

The model's significance was confirmed by ANOVA, which indicated that the linear regression model is a reliable predictor of the dependent variable (Q30) (Table 8).

It should be noted that using a crosstabulation and Pearson Chi-Square Test confirmed that the relationship between the above variables is reliable (0.000, less than 0.005).

For H4, statistically significant, very strong correlations were identified between ease of communication with one's supervisor (Q29) and the supervisor's ability to foster motivation and engagement (Q30) ($r = .992$, $p < .001$). Similarly, very strong correlations were observed between Q29 and alignment with organizational vision (Q32) ($r = .989$, $p < .001$), and between Q30 and Q32 ($r = .989$, $p < .001$). Furthermore, a strong positive correlation was found between colleagues working

Table 6. ANOVA results for the regression model on training effectiveness

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5714.842	2	2857.421	310.706	.000
	Residual	3991.295	434	9.197		
	Total	9706.137	436			

Note: Dependent Variable: Q11. Predictors: (Constant), Q13, Q12.

Table 7. Regression model summary for motivating conditions (Q30)

Model	R	R-Squared	Adjusted R-Squared	Std. Error of the Estimate
1	.989[a]	0.978	0.978	0.703

Note: Predictors: (Constant), Q35, Q32, Q25.

Table 8. ANOVA results for the regression model on motivating conditions

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9452.655	3	3150.885	6374.169	.000
	Residual	214.041	433	.494		
	Total	9666.696	436			

Note: Dependent Variable: Q30. Predictors: (Constant), Q35, Q32, Q25.

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hard during difficulties (Q22) and Q29 (r = .705, p < .001), as well as between Q22 and Q30 (r = .705, p < .001). These results confirm Hypothesis 4.

The high R-squared value of 0.987 (Table 9) indicates that the independent variables (Q32, Q22, Q30) explain 98.7% of the variance in the dependent variable. This suggests the model's estimates are highly aligned with the observed data.

The overall significance of the linear regression model was evaluated with ANOVA (Table 10).

It should be noted that using a crosstabulation and Pearson Chi-Square Test confirmed that the relationship between the above variables is reliable (0.000, less than 0.005).

In addition to the analysis of hypotheses, other important relationships between variables were identified. A statistically significant, strong correlation was confirmed between Q20 (My employees respect me) and Q32 (My organization's vision and goals are very important to me personally) (r = .706**; p = .000). Through Crosstabs statistical analysis, Pearson Chi-Square Test confirmed that the relationship between the above variables is reliable (0.000, less than 0.005) (Table 11).

Based on linear regression, the model's reliability was confirmed using ANOVA (Table 12).

A notable correlation was determined between Q23 (Members of the organization determine opportunities and challenges) and Q37 (I feel that my opinions are important to my organization) (r = .775**; p = .000). Through a Crosstabs statistical analysis, Pearson Chi-Square Test confirmed that the relationship between the above variables is reliable (0.000, less than 0.005) (Table 13).

Table 9. Regression model summary for supervisor communication ease (Q29)

Model	R	R-Squared	Adjusted R-Squared	Std. Error of the Estimate
1	.994	.987	.987	.529

Note: Predictors: (Constant), Q32, Q22, Q30.

Table 10. ANOVA results for the regression model on supervisor communication ease

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9552.721	3	3184.240	11399.603	.000
	Residual	120.949	433	.279		
	Total	9673.670	436			

Note: Dependent Variable: Q29. Predictors: (Constant), Q32, Q22, Q30.

Table 11. Chi-square test results for the association between team respect (Q20) and goal alignment (Q32)

Statistical test	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	324.577	16	.000
Likelihood Ratio	60.892	16	.000
Linear-by-Linear Association	217.014	1	.000
N of Valid Cases	437		

Note: 20 cells (80.0%) have an expected count of less than 5. The minimum expected count is .00.

Table 12. ANOVA results for the regression of team respect on goal alignment

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9527.985	1	9527.985	431.083	.000
	Residual	9614.565	435	22.102		
	Total	19142.549	436			

Note: Dependent Variable: Q20. Predictors: (Constant), Q32.

Table 13. Chi-square test results for the association between opportunity identification (Q23) and feeling valued (Q37)

Statistical test	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	421.960	16	.000
Likelihood Ratio	181.758	16	.000
Linear-by-Linear Association	262.059	1	.000
N of Valid Cases	437		

Note: 14 cells (56.0%) have an expected count of less than 5. The minimum expected count is .03.

Table 14. ANOVA results for the regression of opportunity identification on feeling valued

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	17100.455	1	17100.455	655.367	.000
	Residual	11350.433	435	26.093		
	Total	28450.888	436			

Note: Dependent Variable: Q23. Predictors: (Constant), Q37.

Based on linear regression, the model's reliability was confirmed using ANOVA (Table 14).

A significant correlation was found between Q26 (Members of the organization are ready for changes) and Q34 (I see opportunities for my advancement in my organization) (r = .702**; p = .000). Through a Crosstabs statistical analysis, Pearson Chi-Square Test confirmed that the relationship between the above variables is reliable (0.000, less than 0.005) (Table 15).

Based on linear regression, the reliability of the model was confirmed using ANOVA (Table 16).

A notable correlation was found between Q28 (The supervisor helps me realize how important my work is to the organization) and Q29 (It is easy

Table 15. Chi-square test results for the association between readiness for change (Q26) and advancement opportunities (Q34)

Statistical test	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	323.187	16	.000
Likelihood Ratio	135.233	16	.000
Linear-by-Linear Association	214.909	1	.000
N of Valid Cases	437		

Note: 14 cells (56.0%) have an expected count of less than 5. The minimum expected count is .04.

Table 16. ANOVA results for the regression of readiness for change on advancement opportunities

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	27660.955	1	27660.955	422.839	.000
	Residual	28456.510	435	65.417		
	Total	56117.465	436			

Note: Dependent Variable: Q26. Predictors: (Constant), Q34.

Table 17. Chi-square test results for the association between supervisor support (Q28) and communication ease (Q29)

Statistical test	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	677.848	16	.000
Likelihood Ratio	219.582	16	.000
Linear-by-Linear Association	214.476	1	.000
N of Valid Cases	437		

Note: 17 cells (68.0%) have an expected count of less than 5. The minimum expected count is .00.

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Table 18. ANOVA results for the regression of supervisor support on communication ease

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9401.354	1	9401.354	421.159	.000
	Residual	9710.317	435	22.323		
	Total	19111.670	436			

Note: Dependent Variable: Q28. Predictors: (Constant), Q29.

to communicate with my supervisor) (r = .701**; p = .000). Through a Crosstabs statistical analysis, Pearson Chi-Square Test confirmed that the relationship between the above variables is reliable (0.000, less than 0.005) (Table 17).

Based on linear regression, the reliability of the model was confirmed using ANOVA (Table 18).

4. DISCUSSION

The results provide robust empirical support for all four proposed hypotheses, quantitatively illuminating the key workplace factors that influence the work engagement of employed master's students in Georgia. The confirmation of H1 showed that high responsibility is closely related to low absenteeism and tardiness. This is consistent with the classical theory of engagement, which suggests that employees' trust in the work they do inspires a greater sense of responsibility, making them psychologically stronger and more reliable (Kahn, 1990). They are responsible not only for the task, but also for people, which seems to increase their commitment. This finding empirically supports Kahn's (1990) foundational premise that psychological conditions like meaningfulness and safety promote engagement by demonstrating that the concrete assignment of responsibility for others operationalizes these conditions.

Furthermore, the confirmation of a strong positive correlation between on-the-job training and motivation and engagement in work processes among employed students (H2) indicates that on-the-job learning opportunities are a strong motivational driver for employees. This suggests that when an organization invests in developing its human resources, employees (in this case, master's students) respond with greater energy and focus, directly linking their personal growth to professional contributions. This reinforces the determinant of 'meaningfulness' highlighted by Kahn (1990) and connects to the 'rewards and recognition' dimension identified by Maslach et al. (2001), showing that investment in employee development is perceived as a valuable reward that fosters engagement.

Perhaps the most compelling results concern leadership and organizational culture. The confirmation of H3 and H4 highlights the great importance of a democratic management style and effective communication between managers and their teams. Here, very strong correlations indicate that when employees feel their opinions are valued (democratic style) and can easily connect with their manager and communicate with them, they are much more likely to perceive the organization's goals as their own. These results provide strong empirical confirmation for the theoretical emphasis placed on leadership by Bedarkar and Pandita (2014) and Gemeda and Lee (2020). The extraordinary strength of the correlation with supervisor communication (r = .989) particularly extends the study of Minelgaitė et al. (2018) in the post-Soviet context, quantifying the critical role of the supervisor as a conduit for organizational goals. The supervisor acts as an important bridge connecting the employee to the broader purpose of the organization. Also, colleagues working hard during difficult times are strongly linked to positive supervisor communication, highlighting the trickle-down effect of good leadership on the entire team's engagement.

The strong correlation between team respect and appreciation and the acquisition of the organization's vision and goals (taking ownership of the vision and goals) suggests that a positive peer environment enhances organizational commitment. Similarly, the positive correlation between perceived opportunities for advancement and willingness to change suggests that a clear career path encourages employees to be more flexible and progressive in their thinking. This mirrors the 'values' and 'community' determinants of Maslach et al. (2001) and underscores the importance of 'person-environment fit' noted by Ismail et al. (2018), where perceived fairness and future opportunity within the organization enhance collective commitment.

CONCLUSION

The objective of this study was to identify the challenges to work engagement faced by employed master's students in Georgia and to explore actionable directions for improvement. The research results demonstrate that work engagement within this group is strongly correlated with high levels of supervisory responsibility, the availability of workplace learning opportunities, high-quality supervisor communication, and a democratic management style, where employee opinions are valued. Consequently, it is concluded that improving engagement among employed students requires targeted modifications in workplace management practices. Employers should prioritize fostering open communication with supervisors, adopting participatory leadership styles, and clearly linking students' work to developmental pathways. Simultaneously, universities and policymakers are advised to develop more flexible academic structures to better accommodate the dual roles of working students.

AUTHOR CONTRIBUTIONS

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