

THE EFFECTS OF WORK STRESS AND LEARNING ENVIRONMENT ON WORKFORCE ABSORPTION: THE MEDIATING ROLE OF INSTRUCTOR MOTIVATION IN PUBLIC VOCATIONAL TRAINING INSTITUTIONS

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Abstract

Workforce absorption is a key indicator of the effectiveness of vocational training institutions in supporting labor market outcomes. However, organizational factors affecting instructors such as work stress and the learning environment are often overlooked in workforce development policies. This study aims to examine the effects of work stress and the learning environment on workforce absorption, with instructor motivation serving as a mediating variable. This research employed a quantitative approach using a survey method involving instructors at a public vocational training institution in Indonesia. Data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) to examine both direct and indirect relationships among variables. The findings indicate that work stress has a negative effect on instructor motivation, while the learning environment has a positive effect on motivation. Instructor motivation significantly influences workforce absorption and mediates the relationship between organizational factors and workforce outcomes. These results suggest that improving workforce absorption requires not only curriculum and infrastructure development but also organizational policies that support instructor well-being and motivation. This study contributes to the literature on vocational education and human resource development by highlighting instructor motivation as a critical mechanism linking organizational conditions to labor market outcomes. The findings offer practical insights for policymakers and institutional leaders in designing motivation-based interventions to enhance workforce absorption.

Keywords: *Work Stress; Learning Environment; Instructor Motivation; Workforce Absorption; Vocational Training Institutions*

Abstrak

Penyerapan tenaga kerja merupakan indikator kunci efektivitas lembaga pelatihan kejuruan dalam mendukung hasil pasar tenaga kerja. Namun, faktor-faktor organisasi yang memengaruhi instruktur seperti stres kerja dan lingkungan belajar seringkali diabaikan dalam kebijakan pengembangan tenaga kerja. Studi ini bertujuan untuk meneliti pengaruh stres kerja dan lingkungan belajar terhadap penyerapan tenaga kerja, dengan motivasi instruktur sebagai variabel mediasi. Penelitian ini menggunakan pendekatan kuantitatif dengan metode survei yang melibatkan instruktur di sebuah lembaga pelatihan kejuruan negeri di Indonesia. Data dianalisis menggunakan Partial Least Squares–Structural Equation Modeling (PLS-SEM) untuk meneliti hubungan langsung dan tidak langsung antar variabel. Hasil penelitian menunjukkan bahwa stres kerja memiliki pengaruh negatif terhadap motivasi instruktur, sedangkan lingkungan belajar memiliki pengaruh positif terhadap motivasi. Motivasi instruktur secara signifikan memengaruhi penyerapan tenaga kerja dan memediasi hubungan antara faktor-faktor organisasi dan hasil tenaga kerja. Hasil ini menunjukkan bahwa peningkatan penyerapan tenaga kerja tidak hanya membutuhkan pengembangan kurikulum dan infrastruktur, tetapi juga kebijakan organisasi yang mendukung kesejahteraan dan motivasi instruktur. Studi ini berkontribusi pada literatur tentang pendidikan kejuruan dan pengembangan sumber daya manusia dengan menyoroti motivasi instruktur sebagai mekanisme penting yang menghubungkan kondisi organisasi dengan hasil pasar tenaga kerja. Temuan ini menawarkan wawasan praktis bagi para pembuat kebijakan dan pemimpin lembaga dalam merancang intervensi berbasis motivasi untuk meningkatkan penyerapan tenaga kerja.

Kata kunci: *Stres Kerja; Lingkungan Belajar; Motivasi Instruktur; Penyerapan Tenaga Kerja; Lembaga Pelatihan Kejuruan*

INTRODUCTION

Workforce absorption remains a critical policy issue in many developing countries, particularly in the context of vocational education and training systems designed to bridge the gap between education and labor market needs. Despite continuous investments in vocational training institutions, disparities between training outcomes and labor market absorption persist, raising concerns about the effectiveness of current vocational education policies. In this context, instructors play a pivotal role in translating training curricula into meaningful competencies that enhance workforce readiness.

Previous studies have highlighted that organizational factors such as work stress and the learning environment significantly affect employee performance and organizational outcomes. In vocational training institutions, excessive work stress may reduce instructors' psychological well-being, limit instructional effectiveness, and

weaken their engagement in the training process. Conversely, a supportive learning environment characterized by adequate facilities, institutional support, and positive interpersonal relationships can enhance instructors' motivation and instructional quality. However, empirical evidence linking these factors to workforce absorption outcomes remains limited, particularly within public vocational training institutions.

Instructor motivation represents a critical yet often overlooked mechanism through which organizational conditions influence training effectiveness. Motivated instructors are more likely to engage actively in instructional planning, adopt innovative teaching methods, and align training delivery with labor market demands. From a policy perspective, understanding instructor motivation as a mediating factor offers valuable insights into how institutional policies can indirectly shape workforce absorption outcomes. Nevertheless, much of the existing literature has examined motivation either as an outcome variable or as a direct predictor of performance, rather than as a mediating construct linking work conditions to broader labor market outcomes (Maleha, et.al, 2025).

In the Indonesian context, public vocational training institutions play a strategic role in national workforce development policies. These institutions are expected to produce competent graduates who are readily absorbed into the labor market, thereby supporting national employment objectives. However, limited empirical research has explored how internal organizational factors within these institutions affect workforce absorption through instructor-related mechanisms. This gap is particularly evident in studies that integrate work stress, learning environment, instructor motivation, and workforce absorption within a single analytical framework.

Therefore, this study aims to examine the effects of work stress and the learning environment on workforce absorption, with instructor motivation serving as a mediating variable, in a public vocational training institution in Indonesia. By employing a Partial Least Squares–Structural Equation Modeling (PLS-SEM) approach, this study provides empirical evidence on the interrelationships among these variables. The findings are expected to contribute to the academic literature on vocational education and human resource development, while also offering policy-relevant insights for decision-makers

and administrators seeking to improve workforce absorption through motivation-based organizational interventions.

LITERATURE REVIEW

1. Work Stress and Instructor Motivation

Work stress refers to a psychological condition arising when job demands exceed an individual's capacity to cope with work-related pressures. In vocational training institutions, instructors often face multiple stressors, including administrative workloads, performance expectations, and pressure to align training outcomes with labor market demands. Prolonged exposure to such stressors may negatively affect instructors' psychological well-being and reduce their intrinsic motivation to perform instructional tasks effectively. Previous studies have consistently reported that high levels of work stress are associated with lower work motivation, reduced job satisfaction, and diminished work engagement. From a human resource development perspective, excessive work stress can undermine instructors' enthusiasm, creativity, and commitment to instructional quality. In the context of vocational education, this condition may indirectly affect training effectiveness and workforce readiness. From a policy standpoint, unmanaged work stress among instructors represents a structural issue that may weaken the overall effectiveness of vocational training systems. Therefore, reducing work stress is not merely an individual concern but a strategic organizational intervention aimed at sustaining instructor motivation.

Hypothesis 1 (H1):

Work stress has a negative effect on instructor motivation.

2. Learning Environment and Instructor Motivation

The learning environment encompasses physical, social, and organizational conditions that support the teaching and learning process. A supportive learning environment includes adequate training facilities, access to instructional resources, institutional support, and positive interactions among instructors and management. Such conditions are essential in enabling instructors to perform their roles effectively and maintain high levels of motivation. Empirical studies suggest that a positive learning

environment enhances instructors' motivation by fostering a sense of comfort, security, and professional recognition. When instructors perceive their work environment as supportive and conducive to learning, they are more likely to demonstrate commitment, proactive behavior, and continuous improvement in instructional practices. Conversely, inadequate facilities and weak organizational support may reduce motivation and hinder instructional effectiveness. From a policy-oriented perspective, improving the learning environment represents a tangible and manageable intervention for vocational training institutions. Investments in facilities and institutional support mechanisms can serve as strategic tools to strengthen instructor motivation and, ultimately, training outcomes.

Hypothesis 2 (H2):

The learning environment has a positive effect on instructor motivation.

3. Instructor Motivation and Workforce Absorption

Instructor motivation refers to the internal drive that influences instructors' willingness to exert effort, persist in instructional activities, and align teaching practices with institutional objectives. Motivated instructors tend to demonstrate higher instructional quality, adapt teaching methods to learners' needs, and engage more actively in competency-based training approaches that align with labor market requirements. Workforce absorption, as an outcome of vocational training, reflects the extent to which training graduates are successfully integrated into the labor market. Although workforce absorption is influenced by external labor market conditions, internal institutional factors particularly instructional quality play a critical role in enhancing graduates' employability. Instructor motivation is therefore a key mechanism linking training delivery processes to workforce absorption outcomes. From a policy perspective, strengthening instructor motivation can be viewed as a long-term investment in workforce development. Rather than focusing solely on curriculum reform, policymakers should consider motivation-based strategies to improve training effectiveness and labor market relevance.

Hypothesis 3 (H3):

Instructor motivation has a positive effect on workforce absorption.

4. The Mediating Role of Instructor Motivation

Organizational factors such as work stress and the learning environment do not operate in isolation when influencing workforce absorption. Their effects are often transmitted through psychological and behavioral mechanisms at the individual level. Instructor motivation serves as a critical mediating variable that explains how organizational conditions translate into workforce outcomes. High work stress may reduce instructor motivation, which in turn weakens instructional effectiveness and lowers workforce absorption. Conversely, a supportive learning environment may enhance motivation, leading to improved instructional quality and better labor market outcomes for training graduates. Examining instructor motivation as a mediating variable provides a more comprehensive understanding of the indirect pathways through which organizational policies affect workforce absorption. This mediating framework offers important policy implications, as it highlights the need for integrated interventions that address both organizational conditions and motivational mechanisms within vocational training institutions.

Hypothesis 4 (H4):

Instructor motivation mediates the relationship between work stress and workforce absorption.

Hypothesis 5 (H5):

Instructor motivation mediates the relationship between the learning environment and workforce absorption.

RESEARCH METHOD

1. Research Design

This study employed a quantitative research design using a survey method to examine the relationships among work stress, learning environment, instructor motivation, and workforce absorption. A quantitative approach was selected to enable objective measurement of constructs and statistical testing of both direct and indirect relationships within the proposed research model. The study adopted a cross-sectional design, in which data were collected at a single point in time. This design is commonly

used in organizational and human resource development research to assess perceptions and behavioral tendencies within institutional settings.

2. Population and Sample

The population of this study consisted of instructors at a public vocational training institution in Indonesia. Given the relatively limited population size, a census approach was applied, in which all instructors were invited to participate in the study. This approach ensured comprehensive representation of the population and enhanced the robustness of the empirical findings. A total of 100 instructors participated in the study and provided valid responses for analysis. The use of a census sampling technique is appropriate in institutional-level studies where the population size is manageable and the objective is to capture the full range of organizational perceptions.

3. Data Collection Technique

Data were collected using a structured questionnaire distributed to instructors. The questionnaire was designed based on established measurement scales adapted from relevant literature to ensure content validity. All items were measured using a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). To minimize response bias, respondents were informed that their participation was voluntary and that all responses would be treated confidentially. This ethical consideration was intended to encourage honest and accurate responses.

4. Measurement of Variables

Four latent variables were examined in this study:

- 1) Work Stress, measured by indicators reflecting workload pressure, time constraints, and psychological strain related to instructional duties.
- 2) Learning Environment, measured by indicators related to physical facilities, institutional support, and the conduciveness of the instructional setting.
- 3) Instructor Motivation, measured by indicators capturing enthusiasm, commitment, and willingness to exert effort in instructional activities.

- 4) Workforce Absorption, measured by indicators reflecting graduates' employment outcomes and labor market relevance of training programs.

All measurement items were operationalized to reflect instructors' perceptions within the institutional context of vocational training.

5. Data Analysis Technique

Data analysis was conducted using Partial Least Squares–Structural Equation Modeling (PLS-SEM). This technique was selected due to its suitability for predictive analysis, mediation testing, and complex research models involving latent variables. PLS-SEM is also appropriate for studies with relatively small sample sizes and does not require strict assumptions of data normality. The analysis followed a two-stage approach. First, the measurement model was evaluated to assess construct validity and reliability, including convergent validity, discriminant validity, and internal consistency reliability. Second, the structural model was assessed to test the proposed hypotheses by examining path coefficients, t-statistics, and p-values through a bootstrapping procedure.

RESULTS AND DISCUSSION

1. Respondent Profile

The respondents in this study consisted of instructors at a public vocational training institution in Indonesia. All respondents had direct involvement in training delivery and instructional activities, making them relevant sources of information regarding organizational conditions and training outcomes. The respondents represented diverse instructional backgrounds and areas of expertise, ensuring adequate variation in perceptions related to work stress, learning environment, motivation, and workforce absorption.

2. Measurement Model Evaluation

The measurement model was assessed to evaluate the reliability and validity of the research constructs. Convergent validity was examined using indicator loadings and Average Variance Extracted (AVE). All indicator loadings exceeded the recommended

threshold of 0.70, indicating satisfactory indicator reliability. In addition, the AVE values for all constructs were above 0.50, confirming adequate convergent validity. Internal consistency reliability was assessed using Composite Reliability (CR) values. The CR values for all constructs exceeded the minimum acceptable threshold of 0.70, demonstrating that the measurement instruments were reliable. Discriminant validity was evaluated using the Fornell–Larcker criterion. The square root of the AVE for each construct was greater than its correlations with other constructs, indicating that each construct was empirically distinct from the others. Overall, the results of the measurement model evaluation confirmed that the research instruments were valid and reliable for further structural analysis.

3. Structural Model Evaluation

The structural model was evaluated to test the proposed hypotheses by examining path coefficients, t-statistics, and p-values obtained through a bootstrapping procedure. The results revealed that:

- a) Work stress had a significant negative effect on instructor motivation, indicating that higher levels of work stress were associated with lower motivation among instructors.
- b) The learning environment had a significant positive effect on instructor motivation, suggesting that a supportive and conducive learning environment enhanced instructors' motivation.
- c) Instructor motivation had a significant positive effect on workforce absorption, highlighting the importance of motivation in improving labor market outcomes of vocational training programs.

These findings provide empirical support for the proposed direct relationships among the research variables.

4. Mediation Analysis

The mediating role of instructor motivation was examined by analyzing the indirect effects of work stress and the learning environment on workforce absorption.

The results indicated that:

- a. Instructor motivation significantly mediated the relationship between work stress and workforce absorption, suggesting that work stress influences workforce absorption indirectly through its impact on instructor motivation.
- b. Instructor motivation also significantly mediated the relationship between the learning environment and workforce absorption, indicating that improvements in the learning environment enhance workforce absorption by increasing instructor motivation.

The mediation analysis confirms that instructor motivation serves as a critical mechanism through which organizational factors affect workforce absorption outcomes.

5. Discussion

This study examined the effects of work stress and the learning environment on workforce absorption, with instructor motivation serving as a mediating variable in a public vocational training institution. The findings provide important insights into how organizational conditions within vocational training institutions shape workforce outcomes through instructor-related mechanisms. The results indicate that work stress has a significant negative effect on instructor motivation. This finding supports previous research suggesting that excessive job demands and psychological pressure reduce individuals' willingness to exert effort and maintain enthusiasm in their work roles. In the context of vocational training institutions, high work stress may limit instructors' capacity to deliver training effectively, adopt innovative instructional approaches, and respond to labor market needs. From a policy perspective, this result underscores the importance of stress management as a strategic human resource intervention rather than merely an individual coping issue. The study also found that the learning environment has a significant positive effect on instructor motivation.

This finding aligns with existing literature emphasizing the role of supportive physical and organizational conditions in enhancing work motivation. Adequate

facilities, institutional support, and a conducive instructional atmosphere appear to strengthen instructors' commitment and engagement in training delivery. These results suggest that improvements in the learning environment can serve as a tangible policy instrument for enhancing instructional quality and workforce readiness. Furthermore, instructor motivation was found to have a significant positive effect on workforce absorption. This finding highlights the critical role of instructors as key actors in translating training programs into labor market outcomes. Motivated instructors are more likely to align training delivery with industry needs, emphasize practical competencies, and foster job-ready skills among trainees. As a result, instructor motivation emerges as an essential driver of workforce absorption within vocational training systems. The mediation analysis revealed that instructor motivation significantly mediates the relationships between work stress and workforce absorption, as well as between the learning environment and workforce absorption. These findings indicate that organizational factors influence workforce absorption not only directly but also indirectly through motivational mechanisms. This mediating framework provides a more nuanced understanding of how institutional policies and work conditions shape labor market outcomes. Overall, the findings suggest that workforce absorption policies should move beyond a narrow focus on curriculum design and infrastructure investment. Instead, integrated policy approaches that address instructors' psychological well-being and motivation are likely to yield more sustainable improvements in workforce absorption. By positioning instructor motivation as a central mechanism, this study contributes to both the academic literature and policy discourse on vocational education and workforce development.

CONCLUSION AND POLICY IMPLICATIONS

1. Conclusion

This study examined the effects of work stress and the learning environment on workforce absorption, with instructor motivation serving as a mediating variable in a public vocational training institution in Indonesia. Using a PLS-SEM approach, the findings provide empirical evidence that organizational conditions significantly influence workforce outcomes through instructor-related mechanisms. The results

indicate that work stress negatively affects instructor motivation, while a supportive learning environment enhances motivation. Instructor motivation, in turn, plays a significant role in improving workforce absorption. Moreover, the mediation analysis confirms that instructor motivation serves as an important pathway through which work stress and the learning environment influence workforce absorption. These findings suggest that workforce absorption is not solely determined by external labor market conditions or training curricula. Instead, internal organizational factors and instructors' psychological states play a crucial role in shaping training effectiveness and labor market outcomes. By integrating organizational and motivational perspectives, this study contributes to a more comprehensive understanding of workforce development within vocational training institutions.

2. Policy Implications

The findings of this study offer several important policy implications for vocational training institutions and policymakers. First, institutional leaders should recognize work stress as a strategic issue that requires organizational-level interventions. Policies aimed at managing workload, clarifying role expectations, and providing psychological support may help reduce work stress and sustain instructor motivation. Second, improving the learning environment should be prioritized as a tangible policy intervention. Investments in training facilities, instructional resources, and supportive organizational systems can enhance instructors' motivation and instructional effectiveness. A conducive learning environment not only benefits instructors but also strengthens the overall quality and relevance of training programs. Third, instructor motivation should be explicitly integrated into workforce development policies. Rather than focusing exclusively on curriculum reform or competency standards, policymakers should consider motivation-based strategies, such as professional development opportunities, recognition systems, and supportive leadership practices, to improve workforce absorption outcomes. By emphasizing instructor motivation as a central mechanism linking organizational conditions to workforce absorption, this study provides policy-relevant insights that can inform more holistic and sustainable approaches to vocational education and workforce development.

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