

# Influence of competency and work environment on motivation and career development of lecturers of the faculty of agriculture UMSU

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## ABSTRACT

This study aims to analyze the influence of competence and work environment on the motivation and career development of lecturers at the Faculty of Agriculture, Universitas Muhammadiyah Sumatera Utara (UMSU). The study used a quantitative approach with a causal associative method. The study population was all 52 active lecturers of the Faculty of Agriculture, UMSU, who were used as research samples. Data were collected through a questionnaire with a Likert scale and analyzed using multiple linear regression through the SPSS program. The results showed that competence had a positive and significant effect on lecturer motivation ( $\beta = 0.858$ ;  $p < 0.05$ ), likewise the work environment had a positive and significant effect on lecturer motivation ( $\beta = 0.144$ ;  $p < 0.05$ ). The model was able to explain 91.2% of the variation in lecturer motivation. However, competence, work environment, and motivation did not have a significant effect on lecturer career development with significance values of 0.761; 0.072; and 0.660, respectively. These variables were only able to explain 18.8% of the variation in career development. These findings indicate that competence is the most dominant factor in increasing lecturer motivation, while lecturer career development is more influenced by institutional factors such as promotion policies, credit points, support for scientific publications, and the university's human resource development system. This research implies that improving competence and creating a conducive work environment are important for increasing lecturer motivation, while career development requires stronger policy support and institutional systems.

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## 1. INTRODUCTION

Higher education institutions play a strategic role in producing quality human resources through education, research, and community service. In this context, lecturers are the primary actors determining the institution's success, particularly in improving the quality of higher education. This requires high levels of motivation from lecturers, which is crucial for career development. Therefore, an in-depth study of the factors influencing motivation and career development is crucial.

Work motivation is a psychological factor that drives individuals to achieve specific goals. High motivation will increase lecturers' productivity, creativity, and commitment to the institution (Ilma et al., 2024). One of the main factors influencing lecturer motivation is competence (Ilma et al., 2024). Competence reflects the abilities, knowledge, skills, and professional attitudes possessed by lecturers in carrying out the Tri Dharma of Higher Education. Recent research shows that competence has a significant influence on individual motivation and performance in organizations, including in the higher education sector (Syaharuddin & Fachrunaufal, 2023). Furthermore, lecturer competence has also been shown to play a role in improving the quality of learning and student academic outcomes. (Fitriana & Wahyudi, 2025).

In addition to competence, the work environment is also an important factor influencing lecturers' work motivation. The work environment is the overall aspect that will influence workers regarding achieved productivity and job satisfaction, including work psychology, work physics, and work regulations, as stated by Mangkunegara (Lestari, 2018). A conducive work environment, both physical and non-physical, can increase work enthusiasm and lecturer involvement in academic activities. Research shows that the work environment has a positive influence on employee motivation by increasing work enthusiasm (Wardoyo, et al., 2024). A conducive work environment can increase motivation, productivity, and learning opportunities that support job promotions (Sari, et al., 2023).

Lecturer career development is a crucial issue in the era of global competition in higher education. Career development is not only related to academic promotion but also to increasing professional capacity, research, and scientific contributions. Lecturer competency is crucial to career development, as it serves as the foundation for enhancing lecturers' professional capacity, which ultimately supports their academic career advancement. Without adequate competency support and a conducive work environment, lecturers' career development will be hampered (Fauziah et al., 2025).

The Faculty of Agriculture at the Universitas Muhammadiyah Sumatera Utara (UMSU) plays a crucial role in developing human resources in the agricultural sector. Offering several study programs, the faculty continues to develop to support education, research, and community service. Established in 1977, the Faculty of Agriculture has undergone numerous program developments and accreditations to improve its educational quality.

However, in efforts to improve organizational quality, several issues remain related to competency, the work environment, motivation, and career development. The competency of lecturers and educational staff needs to be continuously improved to adapt to developments in agricultural science and technology, as well as the demands of the workplace. Furthermore, a less-than-conducive work environment, whether in terms of facilities, internal communication, or organizational culture, can impact employee comfort and productivity.

Based on this description, research is needed to empirically examine the influence of competency and the work environment on lecturer motivation and career development at the Faculty of Agriculture, Universitas Muhammadiyah Sumatera Utara (UMSU).

## 2. METHOD

This research was conducted at the Faculty of Agriculture, Universitas Muhammadiyah Sumatera Utara (UMSU), Medan City, North Sumatra Province. The study period was planned for two months, spanning the preparation stage, instrument development, data collection, data processing, and report preparation.

This research was quantitative with a causal associative approach, aiming to determine the influence of independent variables on dependent variables. According to Sugiyono (2022), associative research aims to determine the relationship or influence between two or more variables.

The population in this study was lecturers actively teaching at the Faculty of Agriculture, UMSU. According to Arikunto (2019), if the number of research subjects is less than 100, it is better to take all of them. This study used SPSS for data analysis.

Research Hypothesis

H1: Competence influences lecturer motivation.

H2: The work environment significantly influences lecturer motivation.

H3: Competence significantly influences lecturer career development.

H4: The work environment significantly influences lecturer career development.

H5: Motivation significantly influences lecturer career development.

**Table 1.** Operational Definition of Variables

Variables	Indicator	Scale
Competence (X1)	Job knowledge, job skills, ability to complete tasks, professional attitude, mastery of the field	Likert
Work environment (X2)	Work comfort, work facilities, work relations, work security, work space conditions	Likert
Motivation (Y1)	Work spirit, responsibility, discipline, desire to achieve, work enthusiasm	Likert
Career Development (Y2)	Promotion opportunities, career training, job advancement, career path clarity, competency development	Likert

### 3. RESULTS AND DISCUSSION

#### 3.1 Descriptive Statistics of Research Variables

Descriptive statistics are used to provide a general overview of respondents' perceptions of the research variables.

**Table 2.** Descriptive Statistics of Research Variables

Variables	N	Mean	Std. Deviation	Category
Competence (X1)	52	4,477	0,523	Very high
Work environment (X2)	52	4,348	0,524	High
Motivation (Y1)	52	4,508	0,531	Very high
Career Development (Y2)	52	4,207	0,586	High

Table 1 shows that all variables have average values above 4.00. This indicates that lecturers at the UMSU Faculty of Agriculture have high levels of competence, work environment, motivation, and perceptions of career development.

#### 3.2 The Influence of Competence and Work Environment on Motivation

**Table 3.** Regression Results of Competence and Work Environment on Motivation

Variables	Beta Coefficient	t-count	Sig.
Competence (X1)	0,858	15,432	0,000
Work Environment (X2)	0,144	2,256	0,029

#### Model Summary

R	R <sup>2</sup>	Adjusted R <sup>2</sup>
0,955	0,912	0,908

The regression equation obtained is:

$$Y_1 = 0,041 + 0,858X_1 + 0,144X_2$$

The R<sup>2</sup> value of 0.912 shows that 91.2% of the variation in lecturer motivation can be explained by competence and work environment.

#### 3.3 The Influence of Competence, Work Environment, and Motivation on Career Development

**Table 4.** Regression Results of Competence, Work Environment and Motivation on Career Development

Variables	Beta Coefficient	t-count	Sig.
Competence (X1)	-0,143	-0,305	0,761
Work environment (X2)	0,419	1,832	0,072
Motivation (Y1)	0,214	0,442	0,660

#### Model Summary

R	R <sup>2</sup>	Adjusted R <sup>2</sup>
0,434	0,188	0,137

The regression equation obtained is:

$$Y_2 = 2,060 - 0,143X_1 + 0,419X_2 + 0,214Y_1$$

The  $R^2$  value of 0.188 indicates that only 18.8% of the variation in career development can be explained by competence, work environment, and motivation.

### 3.4 Hypothesis Testing Summary

**Table 5.** Summary of Hypothesis Testing Results

Hypothesis	Statement	Results
H1	Competence influences motivation	Accepted
H2	The work environment influences motivation	Accepted
H3	Competence influences career development	Rejected
H4	The work environment influences career development	Rejected
H5	Motivation influences career development	Rejected

## 3.5 Discussion

### 3.5.1 The Influence of Competence on Lecturer Motivation

The results of the study showed that competence had a positive and significant effect on lecturer motivation ( $\beta = 0.858$ ;  $p = 0.000$ ). This finding indicates that increasing job knowledge, skills, task completion abilities, professional attitudes, and field mastery will increase lecturers' motivation in carrying out the Tri Dharma of Higher Education. The results of this study are in line with Self-Determination Theory (SDT), which explains that the need for competence is one of the main factors shaping a person's intrinsic motivation. Individuals who feel competent tend to have higher motivation in completing their work. This finding also supports the research of Zulfikar et al. (2021) which found that competence has a positive influence on the motivation and performance of university lecturers.

In the context of the UMSU Faculty of Agriculture, high lecturer competence reflects the ability to manage learning, research, and community service, thereby encouraging the emergence of higher work motivation.

### 3.5.2 The Influence of Work Environment on Lecturer Motivation

The results of the study showed that the work environment significantly influenced lecturer motivation ( $\beta = 0.144$ ;  $p = 0.029$ ). This finding suggests that a comfortable, safe work environment with adequate facilities and good interpersonal relationships can increase lecturer motivation. According to Liu et al. (2021), job characteristics and a supportive work environment will enhance individual psychological needs, thereby increasing work motivation. Research by Hakim et al. (2024) at Indonesian universities also found that the work environment has a strong relationship with lecturers' motivation and quality of work life.

The results of this study reinforce the view that the success of higher education organizations depends not only on individual competencies, but also on the quality of the work environment provided.

### 3.5.3 The Influence of Competence on Lecturer Career Development

The results of the study indicate that competence does not significantly influence lecturers' career development ( $p = 0.761$ ). This finding differs from the research of Wahyuningsih et al., which found that competence significantly influences lecturers' career development at private universities in Indonesia. This insignificance indicates that lecturers' career development is not only determined by individual competence but is also influenced by various external factors such as: Institutional policies, Functional position requirements, Credit points, Scientific publications, and Academic promotion opportunities. Santoso's (2025) research shows that lecturers' career development is more influenced by institutional support, publication incentives, and professional development programs than by individual competence alone.

### 3.5.4 The Influence of the Work Environment on Lecturers' Career Development

The results showed that the work environment did not significantly influence lecturers' career development ( $p = 0.072$ ). Even if lecturers feel comfortable working, this does not necessarily result in academic promotion. The lecturer career system in Indonesia is largely determined by meeting administrative and academic requirements set by the government and universities.

*These findings support recent research which states that lecturer career development is a complex process and is influenced by organizational systems and academic policies.*

### 3.5.5 The Influence of Motivation on Lecturer Career Development

The results showed that motivation did not significantly influence lecturers' career development ( $p = 0.660$ ). This finding suggests that high motivation does not necessarily translate into accelerated career development if it is not accompanied by measurable academic achievements such as scientific publications, research, community service, and functional position credits.

The results of this study differ from those of Jordan et al. (2025), who found that motivation mediated the influence of competence on lecturer career development. This difference in results may be due to respondent characteristics, job promotion systems, and career policies in place at different institutions.

## 4. CONCLUSION

Competence has a positive and significant effect on the motivation of lecturers in the Faculty of Agriculture, UMSU. The work environment has a positive and significant effect on the motivation of lecturers in the Faculty of Agriculture, UMSU. Competence does not significantly influence lecturers' career development. The work environment does not significantly influence lecturers' career development. Motivation does not significantly influence lecturers' career development.

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