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Impact of Motivational Factors on the Work Results of Lecturers at Vietnam National University, Hanoi*

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Abstract

This paper aims to develop a conceptual framework for evaluating the impact of motivational factors on the work results of lecturers at Vietnam National University, Hanoi (VNU), one of two leading multidisciplinary and multi-sectoral national universities in Vietnam. This study has considered wages and other benefits (WB), training and development (TD), working environment (WE) and working motivation (WM) as motivational factors, and proposed a structural model of the impact of motivational factors on the work results of lecturers at VNU. The empirical analysis used data from the survey data of 321 university lecturers. Comprehensive, valid, and reliable tools (SPSS 26 and SmartPLS 3.0 software) are used to evaluate rigorous statistical tests including convergence validity, discriminatory validity, reliability, and average variance extracted to analyze and verify the gathered data, and the hypotheses developed. The result of path analysis shows that four motivational factors constitute a structured system with different degrees of influence on the work results of lecturers. There is also a positive relationship between the motivational factors and the work results of lecturers. As a result, it can be concluded that all hypotheses developed are supported. Several recommendations are further suggested to improve the performance of lecturers at VNU.

Keywords: PLS SEM, Motivational Factors, Lecturers' Work Result, Vietnam National University, Hanoi

JEL Classification Code: C30, A20, I20, J81

1. Introduction

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Motivation is one of the critical tools to encourage employees to achieve outstanding results (Njotoprajitno et al., 2020). Motivated employees can lead to increase productivity and allow organizations to achieve higher levels of output. Motivation in the work place has become a very popular topic, since 1970s and early 1980s (Ambrose & Kulik, 1999). Many researchers have expressed their view on the concept of motivation. Motivation can be defined as a driving force that compels an individual to take actions with a goal to achieve certain goals (Maslow, 1943; Shahzadi et al., 2014) or an attempt to achieve a goal (Bedeian, 1993). According to Kleinginna Jr and Kleinginna (1981), motivation is a push from within individuals to meet their unsatisfied needs. This implies, motivation is a force that drives people to do things that they would not normally do. In a workplace, motivation embraces all factors in an employee's development toward the achievement of organizational goals. Robins and Coulter (2005) stated that motivation as "willingness to exert high level of inspiration to reach organizational goals, conditioned by the efforts ability to satisfy some individual need". On the other hand,

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motivation is about giving your staff the right mixture of guidance, direction, resources and rewards, so that they are inspired and keen to work on the way that you want them to (Nabi et al., 2017; Griffin, 2013).

In higher education, motivation plays an important role in educational institutions to enhance lecturers' performance and efficiency (Akhtar & Iqbal, 2017). Mertler (1992) pointed out that if lecturers are satisfied, performance can be improved and can affect students' achievement (Le, 2020). A considerable amount of literature has been published on determinants of lecturer motivation. These include recognition of individual contributions (Situma, 2015), wages and other benefits (Wright, 1985; Ai et al., 2019), working environment (Situma, 2015; Rasheed et al., 2016; Ai et al., 2019), advancement opportunities (Ai et al., 2019), working motivation, performance management system (Rasheed et al., 2016; Rasheed et al., 2010), training and development (Rasheed et al., 2016). However, few of them have examined the impact of universities' motivational factors on lecturers' performance (Hairuddin et al., 2017; Ai et al., 2019).

Vietnam National University, Hanoi (VNU) is one of two leading multidisciplinary and multi-sectoral national universities in Vietnam, tasked with producing highly qualified human resources for the development of the country. In recent years, VNU has encouraged innovation in training and research to keep pace with other top universities around the world and continued to expand its training to include new disciplines in line with development trends and human resource requirements of national and multinational corporations and enterprises. In doing so, it produces high quality human resources, fosters talent, performs key research tasks in the fundamental sciences and technology, and leads Vietnam's social-economy. Consequently, VNU has had many activities and solutions to motivate and improve the effectiveness of lecturers. Therefore, the purpose of this study is to evaluate the impact of motivational factors on the work results of lecturers at VNU. We develop a conceptual framework for evaluating the impact of motivational factors on the work results of lecturers at VNU. Through an empirical investigation using the PLS-SEM methods, this research contributes to understanding how the influential factors of motivational factor affect the work result at VNU.

The paper is divided into five sections. In section 2, an overview of research on motivation and work results of lecturer are provided and a structural model for the the impact of motivational factors on the work results of lecturers are proposed. In Section 3, the methodology of the study is considered in greater detail in order to explain how we used it in this study. In section 4, the analysis results in the case of Vietnam National University are presented. Finally, in section 5, certain conclusions are drawn, and

several recommendations are further suggested improving the performance of lecturers.

2. Literature Review

In recent years, there has been an increasing interest in lecturers' motivation and performance. Many studies had also been conducted to identify factors that motivate lecturers, but their findings are slightly different depending on the study population (Gautreau 2011; Schifter, 2000). Motivation usually comes from two sources: internal factors and external factors (Reeve, 2001). Employees' motivation is often affected by both the factors simultaneously (Rasheeh, 2016). Internal factors include the ability of the lecturer, individual contributions, working motivation, promotion opportunities, workplace relationships and recognition (Sebaluck & Seegum, 2013; Situma, 2015). External factors include school policy, working environment, training and development, wages and other benefits (Sebaluck & Seegum, 2013; Situma, 2015; Rasheed et al., 2016; Do et al., 2019; Do et al., 2020; Do & Canh, 2018; Ai et al., 2019). These factors have a positive effect on job satisfaction, and the lack of these factors will lead to a decrease in job satisfaction among lecturers (Lee & Kim, 2019). Tella et al. (2007) suggested that bonuses are seen as a motivational strategy to improve work productivity, commitment to work, and lecturers' satisfaction. Shah et al. (2012) indicated that motivation of lecturers were effected by bonuses, recognition, satisfaction with leadership and job characteristics. Seebaluck and Seegum (2013) analyzed the factors influencing teachers' motivation at a public elementary school in Mauritius. Their results showed that seven factors strongly influence the motivation of teachers include: (1) sense of accomplishment; (2) ability to communicate and impart knowledge to students; (3) the fulfillment of desires in one's profession; (4) develop social relationships; (5) responsibility for teaching; (6) opportunities to improve career skills and (7) social status.

The results of lecturers' work are evaluated mainly in two aspects: teaching and scientific research. In order to evaluate faculty, Costa and Oliveira (2012) used four main criteria and sub-criteria including teaching (pedagogical publications, student supervision, course teaching), research (scientific publications, scientific projects), knowledge transfer (patents, legislation, norms and technical publications; service, consultancy and dissemination of science and technology), and university management. Chen et al. (2015) used many criteria and sub-criteria to evaluate teaching performance including planning and preparation, communication and interaction, teaching for learning, managing the learning environment, student evaluation and professionalism. Karmaker et al. (2018) applied an integrated analytic hierarchy process (AHP) and Technique for Order preference by Similarity to Ideal Solution

(TOPSIS) model to evaluate lecturers' performance of a renowned engineering university of Bangladesh. Fifteen sub-criteria of five main performance evaluation indicators were considered including subject knowledge (ability of teaching, understand student psychology, problem solving capability), ability of communication (clear idea, accessibility, power of explanation), discipline (fair, attitude, well-organized), co-operative (good guidance, dedicated, power of motivation), creative (positive reinforcement, passionate, inspirational).

Duc et al. (2019) developed a technique to support the process of evaluating lecturer's performance through use of a new Dynamic Fuzzy Order Preference by Similarity to Ideal Solution (DFTOSIC). Tauhed et al. (2019) indicated that journal article, book and research funding are importance criteria to evaluate lecturers' research performance. Dat et al. (2019) applied a multi-criteria decision making to assess lecturer's performance at Vietnam National University, Hanoi based on sets of criteria and decision making committee. The results showed that the proposed method is feasible to solve the real life problem and an extension of the existing approaches. Duc et al. (2020) applied the TOPSIS method in an interval-valued complex neutrosophic set environment to evaluate lecturers' performance. Four criteria with 13 sub-criteria were used in their approach including self-evaluation, manager-based evaluation, peer-evaluation and student-based evaluation.

Several studies have considered the impacts of motivation to work on the performance of lecturers (e.g., Do et al., 2019; Do et al., 2020; Huynh, Do, & Truong, 2019; Le, 2020; Lee & Kim, 2019; Luu, Do, Canh, Nguyen, & Thai, 2019). Davidson (2007) found out the influence of organizational culture factors on the performance of teachers. Only by creating an appropriate culture in the organization, will the staff feel comfortable in communicating with colleagues and superiors, thereby making the job more effective. Nadeem et al. (2014) indicated that lecturers' performance was influenced by social and economic conditions. Negussie (2014) explored the five core needs in Maslow's theory of demand pyramid how they affect teachers' work. Teacher motivation will be reduced when working conditions are not well met, thereby reducing work efficiency. Shahzadi et al. (2014) evaluated the impact of employees' motivation on work results, indicating that there is a positive relationship between work motivation and employee performance. They also indicated that internal factors such as salary and bonuses will had a positive impact on employee productivity and work efficiency.

Rasheed et al. (2016) found out that although compensation packages and financial incentives are important factors for employees in the competitive market environment of the higher education sector but some other factors like job design and working environment, performance management system, and training and development are also

significant. Hairuddin et al. (2017) analyzed the influence of motivation, competence and organizational commitment to job satisfaction and performance of lecturers. Their results indicated that motivation has a positive and significant effect on lecturers' job satisfaction and lecturers' performance. Competence has a positive and insignificant effect on lecturers' job satisfaction, but significant on lecturers performance. Organizational commitment has a positive and significant effect on lecturers' job satisfaction and lecturers' performance. Ai et al. (2019) applied structural equation modeling to analyze the factors affecting work motivation of non-public university lecturers in Ho Chi Minh City. They found that while six factors positively affect the work motivation of lecturers including advancement opportunities, organizational culture, recognition of individual contribution, lecturer's qualifications, wages and other benefits, and working environment. Two other factors, i.e., the characteristics of teaching and learning and the class size have been found to be not statistically significant.

From the literature, and invoking the contingency theory perspective, this study suggested that the motivational factors of lecturers include wages and other benefits (WB), training and development (TD), working environment (WE) and working motivation (WM), and proposed a structural model of the impact of motivational factors on the work results of lecturers at VNU. Consequently, there is a need for an in-depth and systematic investigation of these factors taken together to study how they interact with each other, and how they affect the work results of lecturers. Further, based on the above statements of motivational factors and the working result of lecturers, this study is going to test four hypotheses as follows:

H₁: Wages and other benefits have a positive effect on lecturers' work results

H₂: Training and development have a positive effect on lecturers' work results

H₃: Working environment has a positive effect on lecturers' work results

H₄: Working motivation has a positive effect on lecturers' work

3. Research Methodology

3.1. Research Sample

Based on the literature review, this study examines the impact of four motivational factors (scales) to lecturers' work results (LR) in Figure 1, including: wages and other benefits (WB), training and development (TD), working environment (WE) and working motivation (WM). The questionnaires were distributed firstly to 15 experts to check how they understand the questions. Afterward, we revised

the final questionnaire form based on the suggestions from respondents in two seminars and use it for collecting data. In the final questionnaire, the factor WB is measured by six observed variables (WB.1-WB.6), the factor TD is measured by seven observations (TD.1 - TD.7), the factor WE is measured by six observed variables (WE.1 - WE.6), the factor WM is measured by six observations (WM.1 - WM.6), and the lecturers' work results is measured by seven observed variables (LR.1 - LR.7) (see Figure 1).

The completed questionnaire was sent to lecturers who are working at VNU. The number of valid questionnaires received is 321. According to Hair et al. (2016), the minimum sample size should be 10 times the maximum number of arrowheads pointing at a latent variable anywhere in the PLS path model. We collected 1050 samples of survey questions from different lecturers at VNU by units, including University of Social Sciences and Humanities (USSH), University of Science (US), University of Engineering and Technology (UET), University of Languages and International Studies (ULIS), University of Economics and Business (UEB), University of Education (UED),

Vietnam-Japan University (VJU), School of Law (SoL), International School (IS), School of Medicine and Pharmacy (SMP), School of Interdisciplinary Studies (SIS), and Hanoi School of Business and Management (HSB). Lecturer's motivational factors and work results aspects were measured using questionnaire based on Likert scales (which is common within an SEM context) divided into five levels: (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, and (5) strongly agree. There are 321 were valid for analysis which represents 31%. Table 1 shows the profile of studied respondents.

Based on gender, there were more female lecturers than male lecturers, with 163 female lecturers (49.2%) and 158 male lecturers (49.2%). From educational background, the most respondents were those who had Ph.D degree qualification. So, 264 respondents (82.2%) were lecturers who have Ph.D degree, 38 respondents (11.8%) were lecturers who have Master degree, and 19 respondents (5.9%) were Associate Professor/Professor. The respondents of this study had various teaching experiences, in which 109 (34.0%) of them had of five-to-ten years teaching experience,

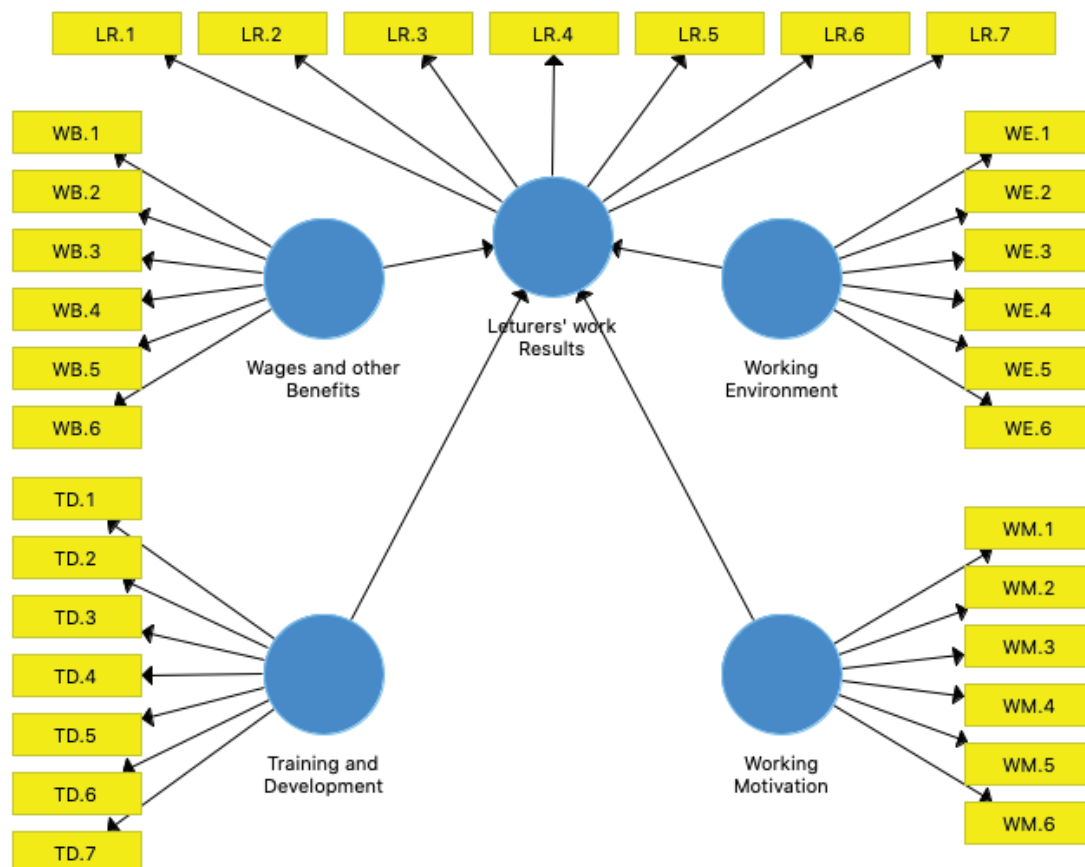


Figure 1: The structural model

Table 1: The Profile of Studied Respondents.

		Frequency	Percent (%)
Gender	Male	158	50.8
	Female	163	49.2
Teaching experience	<5 years	152	47.4
	5 - 10 years	109	34.0
	>10 years	60	18.7
Degree	Master	38	11.8
	Ph. D	264	82.2
	Associate Professor/Professor	19	5.9
Total		321	100

152 (47.4%) respondents had less than five years of teaching experience, and 60 (18.7%) respondents had more than ten years teaching experience.

3.2. Data Analysis Techniques

Our research has provided an empirical evidence for evaluating the impact of motivational factors on the work results of lecturers at Vietnam National University, Hanoi. After collecting result of survey questionnaires, the data were encrypted, cleaned, and then imported into SPSS 26 for reliability analysis and EFA discovery factor analysis. This study utilizes the Cronbach's Alpha (CA) analysis as the reliability test after all respondents' answers of observed variables are valid. This analysis is conducted by comparing the CA value with 0.7. A collection of convincing observed variables are reliable if the CA is higher than 0.7 (Ghozali, 2016). Then, EFA was used to check convergent and discriminant values of the variables. EFA must satisfy the following requirements: factor loading is over 0.5, KMO $\leq 0.5 \leq 1$, Bartlett test the statistical significance (Sig. < 0.05), percentage of variance in Extraction Sums of Squared Loadings are over 50%. Finally, we used a comprehensive, valid, and reliable tool (SmartPLS 3.0 software) to evaluate rigorous statistical tests including convergence validity, discriminatory validity, reliability, and average variance extracted (AVE) to analyze and verify the gathered data, and the hypotheses developed.

4. Empirical Results

4.1. Testing the Reliability of the Scales

This study uses the Cronbach's Alpha (CA) analysis to determine the reliability of the valid variables for the scales (including wages and other benefits, training and development, working environment and working

motivation) as well as lecturers' work results. All scales showed Cronbach's Alpha reliability levels are higher than 0.7 and the values of Corrected Item-Total Correlation are higher than 0.4 are acceptable, the reliability test stand reached.

4.2. Exploratory Factor Analysis

After analyzing Cronbach's Alpha, four factors (independent variables) with 24 observed variables were included for Exploratory Factor Analysis (EFA). KMO test coefficient calculated from the sample is $0.895 < 1.0$. Thus, the sample size of the survey is eligible to conduct EFA. Bartlett's Test of Sphericity value is significant with $P_value = 0.00$. This value indicates that the observed variables are correlated with respect to the total number of observations. The result of total variance explained indicates that 04 factors explain 56.664% is larger than 50% of the variation of the data set.

4.3. Structural Model

In the structural model, regression paths were specified from the basic need latent variables directly to the four motivational factors variables (wages and other benefits, training and development, working environment, and working motivation), which in turn predicted the work results of lecturers variables.

4.3.1. Reliability and Validity of Model

The results in Table 2, showed that all the composite reliabilities for our constructs were above 0.7 and each construct's variance extracted was above the recommended value of 0.5 (Hair et al., 2016). As a result, we have concluded that all our constructs had satisfactory convergent validity.

Table 2: Construct Reliability and Validity.

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Lecturers' work Results	0.883	0.885	0.912	0.634
Training and Development	0.824	0.825	0.877	0.589
Wages and other Benefits	0.840	0.841	0.886	0.609
Working Environment	0.820	0.822	0.874	0.581
Working Motivation	0.858	0.864	0.898	0.639

Table 3: Discriminant validity (Fornell-Larcker Criterion)

	Lecturers' work Results	Training and Development	Wages and other Benefits	Working Environment	Working Motivation
Lecturers' work Results	0.796				
Training and Development	0.692	0.767			
Wages and other Benefits	0.480	0.390	0.780		
Working Environment	0.474	0.411	0.211	0.762	
Working Motivation	0.670	0.542	0.372	0.511	0.799

Table 4: Hypothesis result.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Training and Development -> Lecturers' work Results	0.399	0.398	0.050	8.019	0.000
Wages and other Benefits -> Lecturers' work Results	0.178	0.177	0.042	4.213	0.000
Working Environment -> Lecturers' work Results	0.101	0.102	0.044	2.288	0.022
Working Motivation -> Lecturers' work Results	0.336	0.338	0.054	6.192	0.000

For testing the discriminant validity, we used two tests for discriminant validity: comparison of item loadings with item cross loadings and comparison of the variance extracted from the construct with shared variance. According to Henseler et al. (2015), the top coefficients that are larger than the correlation coefficients in the same column (Fornell-Larcker matrix coefficient) have satisfied the condition as suggested. Table 3 shows that all items were satisfied the condition of discriminant validity.

4.3.2. PLS Structural Model Results

We next examined the overall explanatory power of the structural model, the variance explained by the independent variables, and the magnitude and strength of its paths, where each of our hypotheses corresponds to a specific structural

model path. According to Henseler et al., (2015), we conduct the test with sample size Bootstrapping N = 5000 (Henseler et al., 2015). With P_value < 1%, 5%, and 10%, the proposed hypotheses are considered as statistically significant at the 99%, 95% and 90% reliability levels. The result in Table 4 is as follows:

Result from Table 4 and Figure 2 indicates that three hypotheses in our conceptual model are fully supported and one hypothesis is supported. H_1 estimations for the relationships of the among wages and other benefits with lecturers' work results, H_2 estimations for the relationships of the among training and development with lecturers' work results, and H_4 estimations for the relationships of the among working motivation with lecturers' work results are fully supported (P_value = 0.000). This results also show that wages and other benefits, training and development,

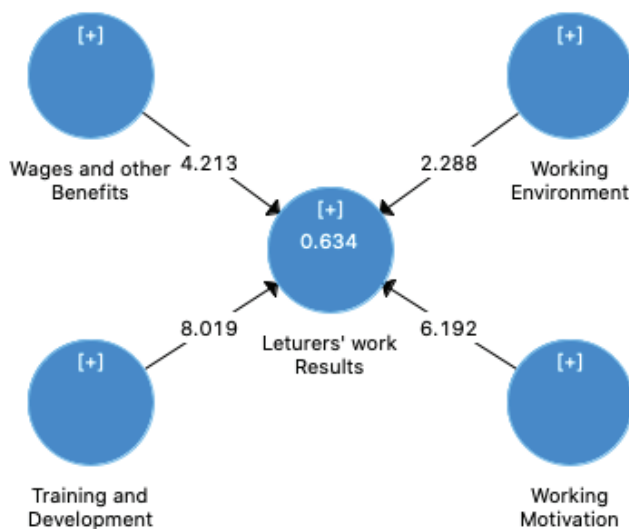


Figure 2: Research model result

and working motivation have a positive relationship with lecturers' work results. The prediction of relationship between working environment and lecturers' work results is supported ($P_value < 0.05$). The results of H_3 also shows the positive relationship between working environment and lecturers' work results. As a result, the testing of the relationship between the motivational factors and work results of lecturers at Vietnam National University, Hanoi has been verified and supported.

5. Conclusion and Recommendations

The major purpose of this study was to examine and analyze the impact of wages and other benefits, training and development, working environment, and working motivation on lecturers' work results at Vietnam National University, Hanoi. The data were analyzed using comprehensive, valid, and reliable tools (SPSS 26 and SmartPLS 3.0 software) to evaluate rigorous statistical tests including convergence validity, discriminatory validity, reliability, and average variance extracted to analyze and verify the gathered data, and the hypotheses developed. Specifically, this study was conducted to find out which motivational factor has the greatest influence on the lecturers' work results at Vietnam National University, Hanoi.

Among these variables, training and development (TD) is the most effective factor ($\beta = 0.399$). According to Rasheed et al. (2016), lecturers' training and development are very important to enhance their knowledge, skills and to give them confidence to compete in the industry. Therefore, in order to improve the lecturers' work results, VNU-affiliated universities need to promote short-term

training programs, as well as create favorable conditions for lecturers to exchange research and teaching at foreign countries. Working motivation (WM) with $\beta = 0.336$ have the second strongest influence on lecturers' work results at VNU. This implies that when lecturers are well encouraged, this impacts their performance. This finding is supported by Ai et al. (2019) and Narasuci et al. (2018). Working environment (WE), wages and other benefits (WB) are also two significant factors that affect the lecturers' work results at VNU. These factors can encourage the increase in the work results of lecturers while working. These factors indicate that lecturers are not really satisfied with the current salary and working environment. The impact of these factors on lecturers' work results need to be understood by VNU-affiliated universities' management to improve the lecturers' work results. These results are supported by several previous studies. Narasuci et al. (2018) also found there is a positive and significant effect of the work environment on lecturer performance and work motivation, work motivation. Ai et al. (2019) indicated that wages and other benefits and working environment has positively affected the work motivation of lecturers.

This study is an attempt to understand how wages and other benefits, training and development, working environment, and working motivation affect lecturers' work results at VNU. Based on the discussion of findings about the impact of motivational factors on the work results of lecturers at Vietnam National University, Hanoi (VNU), although it was at the satisfactory level, it needs to be improved in the future by holding various activities to improve lecturers' motivation and it must be done consistently to guarantee lecturer's educational quality in line with more challenging education in the digital era.

For future research, we propose some recommendations. Firstly, the sample only covered 321 lecturers at Vietnam National University, Hanoi, so it may not represent all lecturers in Vietnam. Future studies with larger samples could be conducted to allow for comparisons among lecturers in Vietnam. Secondly, this study only emphasized on constructs related between motivational factors and work results of lecturers. Other constructs that should be studied to measure the lecturer's performance are professional competencies, incentives, work ethics, facilitators, etc.

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