WORK MOTIVATION OF LECTURERS AT CAN THO UNIVERSITY OF TECHNOLOGY

Nguyen Minh Tan[*], Tang Thi Ngan[†], Le Huynh Nhat Dang[*], Le Hong Tuyen[*]
Email: nmtan@ctuet.edu.vn

Abstract: *This study aims to analyze factors influencing the work motivation of lecturers at Can Tho University of Technology. The research was conducted based on opinions collected from 160 lecturers at this university. Reliability testing methods using Cronbach's Alpha coefficient, exploratory factor analysis (EFA), and multiple regression analysis were employed for analysis. The estimated results indicate that factors influencing the work motivation of university lecturers include Job characteristics, Working conditions, Salary, Bonuses, benefits, Training and promotion opportunities, and Relationships with superiors. Among these, relationship with superiors is identified as the strongest factor impacting the work motivation of lecturers.*

Keywords: *Can Tho University of Technology, lecturers, factors influencing, work motivation.*

I. Introduction

In the university education environment, lecturers play a crucial role in shaping and developing students' learning and research behaviors, as well as in constructing and maintaining educational quality. The work motivation of lecturers is one of the determining factors in the success of teaching and research processes at universities. Understanding factors influencing work motivation not only helps individual lecturers improve themselves but also assists universities in creating a more positive work environment, thereby enhancing productivity and the quality of educational services.

Today, amidst increasingly fierce competition among universities, each institution needs to operate with a high-quality workforce, meaning lecturers must dedicate themselves fully to the existence and development of the university. Can Tho University of Technology, like many other universities, faces numerous challenges in retaining and creating favorable working conditions for lecturers. The Can Tho University of Technology was established in 2013 as a public university. Given its relatively short period of operation, the university aims for robust and sustainable development, which requires a team of lecturers who work with enthusiasm, dedication, and full commitment,

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[*] Can Tho University of Technology

[†] Can Tho Technical Economic College

viewing the university as their second home. Therefore, the motivation of the lecturers is of great importance. University leaders must constantly face the pressure of finding ways to stimulate and encourage the lecturers' spirit and attitude, promoting enthusiastic work that enhances the university's efficiency and keeps up with the common trends of the era and the current national digital transformation needs. Hence, the study "*Work motivation of lecturers at Can Tho University of Technology*" was conducted to propose solutions for creating work motivation for lecturers, contributing to the university's development in the digital transformation era.

II. Theoretical foundation and literature review

2.1 Theoretical foundation

Work motivation can be understood, according to Mullin (1996), as "the forces within an individual that are focused on achieving some goal in order to fulfill some anticipated need." Additionally, work motivation is defined as "the willingness to exert high levels of effort toward organizational goals, conditioned by the effort's ability to satisfy some individual need" (Robbins, 1993). This definition addresses the relationship between three factors: "effort, organizational goals, and individual needs." The mechanism for creating work motivation originates from "human needs and the satisfaction of those needs. "Between needs and the satisfaction of needs lies a certain distance, and this distance is bridged by motivation.

There are numerous theories regarding the content of work motivation. This article relies on the foundational theories of Maslow (1943) regarding the hierarchy of human needs, Vroom's expectancy theory (1964), and McClelland's need for achievement theory (1988). These theories demonstrate that human work motivation is influenced by various groups of factors, including (i) individual intrinsic factors such as interests, goals, abilities, experience, and tenure; (ii) external factors such as "organizational culture" or "work environment" and human resource policies; (iii) job-related factors such as "job stability and autonomy, task variety, responsibility, job complexity, and job attractiveness and interest."

2.2 Literature Review

Research on factors influencing the work motivation of faculty members at Can Tho University of Technology is an important part of understanding and improving the working environment in higher education. Creating motivation to retain faculty members is a decisive factor in the quality of education and the development of universities. Previous studies have focused on evaluating work motivation factors in various educational and labor environments. The study by Buelens and Broeck (2007) showed that women are often motivated by salary and good relationships within the organization. Re'em (2010) identified several factors impacting employee motivation, including rewards, recognition, autonomy, promotion, fairness, and learning opportunities. On the other hand, Gupta and Subramanian (2014) found that salary, workload, and training systems positively affect employee motivation. In addition, several studies have been conducted in Vietnam, such as Nguyen Thi Phuong Dung (2012), who developed a scale for employee motivation in office work in Can Tho City. The motivational factors include regulations and policies, working relationships, exciting work, and social welfare.

Moreover, Nguyen Minh Tan et al. (2022) identified factors influencing the work motivation of public servants in

Hong Dan District, Bac Lieu Province, such as job characteristics, colleagues and promotion opportunities, working conditions and legal policies, and relationships with superiors. Among these, working conditions and legal policies have the most substantial impact on the work motivation of public servants in Hong Dan District, Bac Lieu Province. Additionally, Nguyen Minh Tan et al. (2023) found that salary, bonuses, welfare, relationships with superiors and colleagues, training and promotion, and job characteristics positively affect employees' work motivation at BIDV Bank in Vietnam. Among these, salary, bonuses, and welfare strongly impact employee motivation.

III. Research Methodology

3.1 Research Model

Based on the theoretical foundation of work motivation and reviewed experimental research models above, the theoretical research model on the work motivation of lecturers at Can Tho University of Technology is constructed as follows:
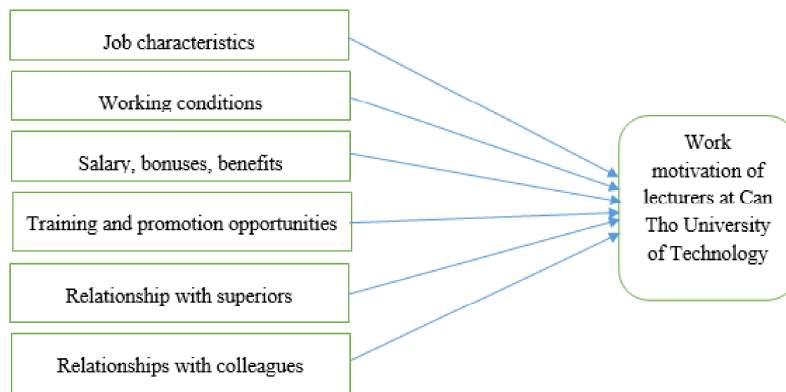

Figure 1. Proposed Research Model

Source: Compiled by the author, 2024.

Research scale:

The scale measuring work motivation of lecturers at Can Tho University of Technology is built based on the "Job Descriptive Index (JDI) scale" by Smith et al. (1969) and the scale by Teck-Hong and Waheed (2011)", established on the model of Herzberg et al. (1959). Additionally, it combines inheriting scales from previous studies. Furthermore, based on the actual research conditions at Can Tho University of Technology, the author has adjusted and supplemented the observed variables measuring work motivation to suit the research subjects, which are lecturers. This research model includes 6 scales belonging to the independent variable group with 27 observed variables and one scale belonging to the dependent variable consisting of 5 observed variables. The scales are described explicitly in Table 1 below.

Table 1: Description of Scales

No.	Scale/observed variable	Abbreviation
I	**Job Characteristics**	**JOCHA**
1	The job I am doing aligns with my strengths and abilities	JOCHA1
2	The job is interesting, challenging, and meaningful to society	JOCHA2
3	The job I am doing is not overly stressful, with manageable pressure	JOCHA3
4	There is ample motivation for me to strive in the job I am doing	JOCHA4

No.	Scale/observed variable	Abbreviation
5	I can balance between my personal life and the job I am doing	JOCHA5
II	**Working conditions**	**WOCO**
6	Professional and modern working environment	WOCO6
7	Safe, convenient, and comfortable working environment	WOCO7
8	Clean and airy working space	WOCO8
9	Adequate, modern facilities and equipment, meeting job requirements	WOCO9
III	**Salary, bonuses, benefits**	**SABOB**
10	My current salary reflects my work abilities	SABOB10
11	Salary is paid on time	SABOB11
12	Salary and bonuses in the organization are fair and reasonable	SABOB12
13	The salary is sufficient to support my personal life	SABOB13
14	The vacation and holiday policies are reasonable	SABOB14
15	The organization organizes annual trips and vacations for lecturers	SABOB15
IV	**Training and promotion opportunities**	**TRAPO**
16	Lectures have many opportunities to receive training on knowledge and skills necessary for adapting to the national digital transformation.	TRAPO16
17	Lectures have ample opportunities for career advancement in their current roles.	TRAPO17
18	Lectures are well aware of the conditions for career advancement	TRAPO18
V	**Relationship with superiors**	**RESUP**
19	Superiors always listen to and respect the opinions of employees	RESUP19
20	Superiors always support and encourage employees	RESUP20
21	Superiors always care about the rights of employees	RESUP21
22	Superiors praise and acknowledge achievements when completing tasks well	RESUP22
23	Superiors show tact and discretion in providing feedback and criticism to employees.	RESUP23
VI	**Relationships with colleagues**	**RECOL**
24	Colleagues are friendly, pleasant, and approachable	RECOL24
25	Colleagues always help each other and collaborate to accomplish tasks effectively.	RECOL25
26	Everyone is treated fairly	RECOL26
27	Everyone always creates opportunities for newcomers to develop alongside them.	RECOL27
	Work motivation	WOMO
28	I always strive my best to complete assigned tasks	WOMO28
29	I always strive for the common development goals of the organization	WOMO29
30	I always work with enthusiasm and passion	WOMO30
31	I always actively participate in the activities of the organization	WOMO31
32	I always intend to stay with the job for the long term	WOMO32

Source: Compiled by the author, 2024.

3.2. Analysis Method

The study employs the method of assessing the reliability of the scale using Cronbach's alpha coefficient, exploratory factor analysis (EFA), and multiple linear regression analysis to estimate the factors influencing the work motivation of lecturers at Can Tho University of Technology.

3.3. Research Data

For exploratory factor analysis studies, the minimum sample size is 50, and the observation/variable ratio is 5:1 (Nguyen Dinh Tho, 2011), meaning that each variable should have at least 5 observations. Thus, with 32 observed variables constructed in the research scale, the study needs to be conducted with a minimum sample size of 160 observations. Therefore, this study surveyed 160 lecturers currently working at the school.

IV. Results and Discussion

4.1. Results of Scale Reliability Testing and Exploratory Factor Analysis

Table 2: Results of factor rotation

Observed variables	Factors					
	F1	**F2**	**F3**	**F4**	**F5**	**F6**
TRAPO17	0.829					
TRAPO18	0.794					
TRAPO16	0.779					
RECOL26		0.809				
RECOL24		0.765				
RECOL25		0.718				
RECOL27		0.563				
JOCHA3			0.916			
JOCHA4			0.907			
JOCHA2			0.845			
JOCHA5			0.826			
JOCHA1			0.789			
WOCO7				0.697		
WOCO6				0.667		
WOCO9				0.657		
SABOB15					0.787	
SABOB13					0.780	
SABOB10					0.678	
SABOB12					0.655	
RESUP21						0.889
RESUP20						0.874
RESUP19						0.856
RESUP22						0.746
RESUP23						0.669
Eigenvalue	1.223					
Extracted variance (%)	74.229					
KMO	0.809					
Sig. of Bartlett's test	0.000					

Source: Data processing from a survey of 160 lecturers at Can Tho University of Technology, 2024.

After conducting the reliability testing of the scale from 27 observed variables, the remaining results show that 25 observed variables meet the criteria, as 2 variables were excluded (SABOB11 and SABOB14). Additionally, exploratory factor analysis resulted in the exclusion of 1 observed variable that did not meet the requirements, which is WOCO8. Therefore, 6 new factor groups were formed with 24 observed variables. The results of factor rotation are presented in Table 2 below.

4.2. Regression Model Analysis Results

The multivariate linear regression method was used to estimate factors affecting the work motivation of lecturers at Can Tho University of Technology. Regression results are presented in Table 3 below:

Table 3. Estimation Results of the Regression Model

Variable	B	Standard error	Beta	Sig.
F1: Training and promotion opportunities	0.041	0.028	0.053	0.031[**]
F2: Relationships with colleagues	0.028	0.018	0.036	0.020
F3: Job characteristics	0.205	0.062	0.185	0.003[***]
F4: Working conditions	0.187	0.024	0.152	0.001[***]
F5: Salary, bonuses, benefits	0.281	0.037	0.227	0.000[***]
F6: Relationship with superiors	0.377	0.056	0.330	0.000[***]
Coefficient	1.458	0.278		0.000
F	65.443			
Sig. F	0.000			
R^2	0.697			

Source: Data processing from a survey of 160 lecturers at Can Tho University of Technology, 2024.
Note: [**]; [***]: correspond to significance levels of 5% and 1%, respectively

To accurately estimate the regression model in this study, the analysis involved checking for violations of assumptions of the linear regression model. Test results indicated that the VIF of all independent variables was less than 2, indicating that multicollinearity was not present.

In addition, test results showed that the F-statistic of the model was 65.443 with a significance level of Sig. = 0.000, they were indicating that the regression model is significant at the 1% level. The R^2 coefficient was 0.697, meaning that the independent variables explain 69.7% of the work motivation of lecturers at Can Tho University of Technology.

The estimation results in Table 3 showed that out of six variables included in the research model, five have a statistically significant impact on the work motivation of lecturers. Among these, four variables have a statistically significant impact at the 1% level: F3 (Job characteristics), F4 (Working Conditions), F5 (Salary, Bonuses, and Benefits), and F6 (Relationship with Superiors). The remaining variable, F1 (Training and Promotion Opportunities), is statistically significant at the 5% level.

The variables, in order of increasing impact, are as follows:

F1 (Training and Promotion Opportunities) with a Beta coefficient of 0.053.

F4 (Working Conditions) with a Beta coefficient of 0.152.

F3 (Job characteristics) with a Beta coefficient of 0.185.

F5 (Salary, Bonuses, Benefits) with a Beta coefficient of 0.227.

F6 (Relationship with Superiors) with a Beta coefficient of 0.330.

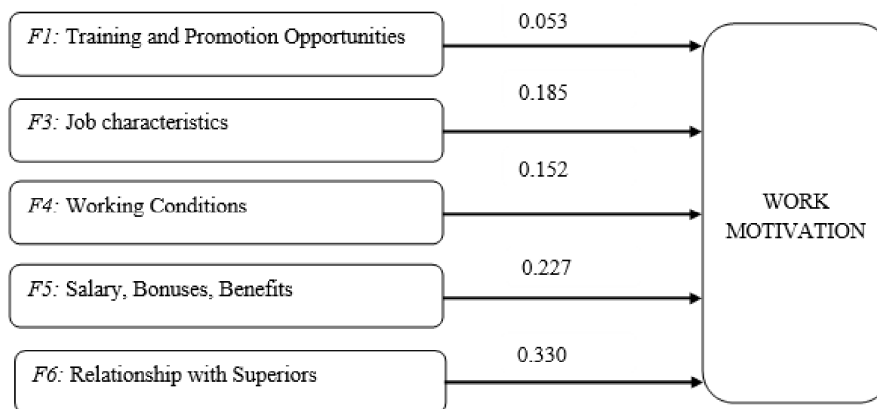The research model is described as follows:

Figure 2: Research Model Results

Source: Compiled by the author, 2024

V. Conclusion

The research results indicate that five key factors significantly influence the work motivation of faculty members at Can Tho University of Technology. These factors are Training and Promotion Opportunities, Job Characteristics, Working Conditions, Salary, Bonuses, Welfare, and Relationship with Superiors. Among these, Relationships with superiors have the strongest impact, followed by salary, bonuses, and welfare. These findings underscore the importance of a supportive and well-structured work environment in fostering faculty motivation. This study proposes some implications to enhance work motivation for lecturers as follows:

Enhance Training and Promotion Opportunities (F1):

Develop Comprehensive Training Programs: Implement regular professional development workshops and courses to enhance faculty skills and knowledge.

Clear Promotion Pathways: Establish transparent promotion criteria and ensure faculty members know the requirements and opportunities for career advancement.

Improve Working Conditions (F4):

Upgrade Facilities: Invest in modern teaching and research facilities to create a conducive work environment.

Health and Safety: Ensure that the workplace meets all health and safety standards, providing a comfortable and safe environment for faculty members.

Optimize Job Characteristics (F3):

Job Enrichment: Offer opportunities for faculty to engage in meaningful and challenging work that aligns with their expertise and interests.

Autonomy: Provide faculty with the autonomy to design and implement their courses and research projects, fostering a sense of ownership and responsibility.

Enhance Salary, Bonuses, and Welfare (F5):

Competitive Compensation: Regularly review and adjust salaries to remain competitive with other institutions.

Performance-Based Bonuses: Implement a performance-based bonus system to reward exceptional work and achievements.

Comprehensive Benefits: Offer a comprehensive benefits package, including health insurance, retirement plans, and other welfare programs.

Strengthen Relationships with Superiors (F6):

Effective Communication: Encourage open and effective communication between faculty and administration to build trust and mutual respect.

Supportive Leadership: Train superiors in leadership skills that emphasize support, recognition, and constructive feedback.

Mentorship Programs: Establish mentorship programs where experienced faculty can guide and support newer members, fostering a collaborative and supportive environment.

By addressing these key areas, Can Tho University of Technology can create a motivating and supportive environment that enhances faculty satisfaction and performance, ultimately contributing to the institution's overall quality of education and development.

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ĐỘNG LỰC LÀM VIỆC CỦA GIẢNG VIÊN TRƯỜNG ĐẠI HỌC KỸ THUẬT - CÔNG NGHỆ CẦN THƠ

Nguyễn Minh Tân[‡], Tăng Thị Ngân[§], Lê Huỳnh Nhật Đăng[‡], Lê Hồng Tuyên[‡]

Tóm tắt: *Mục tiêu của nghiên cứu này là phân tích các yếu tố ảnh hưởng đến động lực làm việc của giảng viên tại trường Đại học Kỹ thuật - Công nghệ Cần Thơ. Nghiên cứu được thực hiện dựa trên việc lấy ý kiến từ 160 giảng viên của trường. Các phương pháp kiểm định độ tin cậy của thang đo bằng hệ số Cronbach's Alpha, phân tích nhân tố khám phá (EFA) và hồi qui đa biến được sử dụng để phân tích. Kết quả ước lượng cho thấy, các nhân tố ảnh hưởng đến động lực làm việc của giảng viên trường bao gồm: tính chất công việc; điều kiện làm việc; lương, thưởng, phúc lợi; cơ hội đào tạo và thăng tiến; mối quan hệ với cấp trên. Trong đó, mối quan hệ với cấp trên là yếu tố tác động mạnh nhất đến động lực làm việc của giảng viên.*

Từ khóa: *Đại học Kỹ thuật - Công nghệ, động lực làm việc, giảng viên, yếu tố ảnh hưởng.*

[‡] Trường Đại học Kỹ thuật - Công nghệ Cần Thơ

[§] Trường Cao đẳng Kinh tế - Kỹ thuật Cần Thơ