Factors Affecting Scientific Research Motivation of Lecturers at Universities in the Economic Sector in Vietnam

Canh Chi Hoang
University of Finance - Marketing

ABSTRACT: Teaching and scientific research are two indispensable activities in every university. Scientific research activities help lecturers consolidate professional knowledge, combine theory and practice, and make lectures rich and lively. From there, it helps lecturers to improve their capacity and qualifications as well as help the university's reputation become better and better. However, the scientific research activities of university lecturers in Vietnam have not received much attention and investment. Through surveys at universities in the economic sector in Vietnam as well as by quantitative analysis, the research has pointed out 6 main factors affecting the motivation of lecturers for scientific research, including Capacity; Procedures and funding; Environment; Reward system; Culture. The research results also suggest some solutions for universities to promote the scientific research motivation of lecturers.

KEYWORDS: scientific research motivation, lecturer, Vietnam

I.   INTRODUCTION

In the current period of deepening international integration, improving the quality of training at universities is an important factor that needs to be taken seriously. The Ministry of Education and Training of Vietnam has stipulated that lecturers must spend at least 1/3 of the total working time in the year on scientific research tasks (Circular No. 47/2014/TT-BGDĐT). Thus, scientific research is one of the important tasks in renewing and improving the quality of training. Practice shows that scientific research activity together with training quality is one of the two important tasks for any university. Scientific research goes hand in hand with and is associated with improving training quality, improving the quality of scientific research activities is the shortest and most effective way to improve training quality.

Many studies have confirmed the important role of scientific research activities in the quality of training in universities. Research is important in the development and dissemination of knowledge, research activities lead to the development of new knowledge as well as the consolidation of existing knowledge (Lertputtarak, 2008). Scientific research is an important foundational factor that contributes to improving the quality of teaching, reinforcing many of the skills necessary for effective teaching to help teachers become successful teachers. Scientific research and teaching work complement each other. Teaching and research should coexist because the link between teaching and research is stimulating and supportive (Rowland, 1996). In addition, participating in research improves the confidence of faculty members, contributing to career development and career advancement (Katz & Coleman, 2002).

Recently, the scientific research activities of lecturers at Vietnamese universities have seen many developments, reflected in the increasing number of scientific works each year. However, the international publication still has many limitations. University lecturers mainly focus on teaching activities, not on scientific research activities. Subjective reasons are that lecturers do not properly perceive the importance of scientific research activities. Objective reasons such as the attention of leaders, low funding, cumbersome registration procedures, no training in research skills, no in-depth research groups. Scientific research activities in the field of social sciences in general and economic sciences, in particular, are still limited in terms of works and international publications. Therefore, this study was conducted to determine the factors affecting the motivation of scientific research of university lecturers in general and university lecturers of economics in particular. From there, the author makes recommendations to universities in the economic sector to come up with

policies to create active scientific research for lecturers to contribute to improving training quality and international integration.

II. LITERATURE REVIEW

Abraham Maslow's Hierarchy of Needs (1943)

According to Abraham Maslow, physiological needs are biological requirements for human survival, e.g. air, food, drink, shelter, clothing, warmth, sex, sleep, etc, this is the lowest need. If these needs are not satisfied the human body cannot function optimally. Maslow considered physiological needs the most important as all the other needs become secondary until these needs are met. At the higher level is the safety needs. These are the needs to avoid physical danger and the threat of job loss, loss of property, the human need to live in an environment that ensures safety, health, and employment. Love and belongingness needs are the third level of human needs in Maslow's Hierarchy. These are the needs to relate to others to give and receive affection, care, or cooperation. It is the need to have friends, to communicate with people to develop. Esteem needs are the fourth level in Maslow's hierarchy. Abraham Maslow said that, when people are satisfied with the need to be accepted as a member of society, they tend to have self-esteem and desire to be respected by others. This need leads to the desire to achieve power, prestige, status, and self-confidence. People who achieve this need expect to receive the attention, care, and respect of those around them. Therefore, people often desire to have high status to be respected and respected by many people. The highest level in Maslow's hierarchy is the need for self-actualization. This is the need to be formed and developed, to turn their abilities and potentials into reality. This need refer to the realization of a person's potential, self-fulfillment, seeking personal growth, and peak experiences.

In summary, Abraham Maslow's theory of needs states that, when each of those needs is satisfied, the next need becomes important. Satisfaction of human needs will be hierarchical from low to high, although no need is completely satisfied, if a need is satisfied, it no longer creates motivation. Therefore, to motivate employees, managers need to understand where that employee is in this hierarchy and must direct satisfaction to needs in that hierarchy.

Herzberg's Two-Factor Theory of Motivation (1959)

Frederick Herzberg introduced the two factors namely "Motivators" and "Hygiene", which lead to job satisfaction at the workplace. Group 1, "Motivators" include recognition, achievement, the possibility of growth, advancement, responsibility, and the work itself. Herzberg believes that, when these factors are satisfied, it will create motivation and job satisfaction. Group 2 "hygiene" includes factors belonging to the environment of the organization such as salary, interpersonal relations at work, supervision, company policies and administration, working conditions, factors in personal life, status, and job security. According to Herzberg, if these factors are positive, they will have an impact on preventing job dissatisfaction. However, to effectively motivate employees and their job satisfaction, other factors need to be used.

Herzberg's theory identifies a range of factors that influence employee motivation and job satisfaction and also influence job design and redesign in many organizations. However, in fact, according to critics of this theory, these factors do not operate independently, separately, but at the same time.

Expectancy Theory – Victor Vroom (1964)

This theory addressed the relationship between motivation and management. Accordingly, work motivation is generated from the individual's expectations that if the individual makes an effort, it will bring certain achievements. And achieving those achievements will bring them the desired results or rewards. Expectancy theory indicates that individuals will be motivated to work if they believe in a positive relationship between effort and achievement.

Victor H. Vroom's theory can be applied in employee management in organizations. Accordingly, managers should plan human resource management policies so that these policies clearly show the relationship between efforts and achievements, between achievements (results) and rewards. At the same time, the manager should create the attractiveness of the results or rewards for the employees, thereby creating the motivation of the employees.

Hackman and Oldham's Job Characteristics Model (1974)

Hackman and Oldham developed Herzberg's two-factor theory by focusing on methods that can change job characteristics to motivate employees and improve job satisfaction, helping employees satisfy their higher needs. These two authors argue that any job can be described in terms of five characteristics. The five core job dimensions identified are autonomy, feedback, skill variety, task identity, and task significance. The

three characteristics of that job are skill variety, task identity, and task significance come together to create meaningful work. If these three characteristics coexist in a job, employees will feel that their work is important and worth their contribution. Autonomy of work gives employees a sense of personal responsibility for the results achieved. If a job receives clear and direct feedback on its performance, employees will know how effective their work is.

Theory of Planned Behaviour – TPB

Theory of Planned Behaviour – TPB (Ajzen, 1991), evolved from the Theory of Reasoned Action (TRA, Ajzen & Fishbein, 1975), which assumes that a behavior can be predicted or explained by intentions (motives) to perform the behavior. Intentions are assumed to include the factors and motivations that influence behavior and are defined as the number of effort people exert to perform the behavior.

The TPB theory states that intentions leading to human behavior are predicted by: attitude toward a behavior, subjective norm, perceived behavioral control. These intentions, together with perceived behavioral control, account for significantly different behaviors in practice. Attitude toward a behavior, subjective norm, perceived behavioral control are thought to be related mainly to the set of behavioral beliefs, norms, and control that according to Ajzen & Fishbein (2005). This is influenced by many socio-demographic factors such as society, culture, personality, and external factors.

III. METHODOLOGY

The objective of the study is to identify and evaluate the influence of factors on the motivation of scientific research of university lecturers majoring in economics in Vietnam. To achieve the research objective, the author conducted a survey at universities of economics in 3 regions of the North, Central, and South of Vietnam.

The survey questionnaire consists of 3 parts: Part 1 is general information about lecturers (gender, age, seniority, qualifications, position); Part 2 is information to learn about the lecturer's scientific research activities (the number and types of scientific works published by the lecturer, the types of topics and research projects that the lecturer has participated in, funding sources for scientific research, research groups, etc); Part 3 is an assessment of the factors affecting the motivation of lecturers for scientific research.

To evaluate the impact of factors on the scientific research motivation of lecturers at universities in the economic sector, the author uses the 5-point Likert scale (1. Completely disagree; 2. Disagree; 3. No opinion/ Normal; 4. Agree; 5.Completely agree). After cleaning the data, the number of samples collected is 546 and processed by SPSS 22 software. The author uses Cronbach's Alpha analysis, exploratory factor analysis (EFA), and regression analysis to assess the impact of these factors on the motivation of scientific research faculty at universities in the economic sector.

Based on the theoretical framework and the authors set up the research model andthe hypotheses as follows:
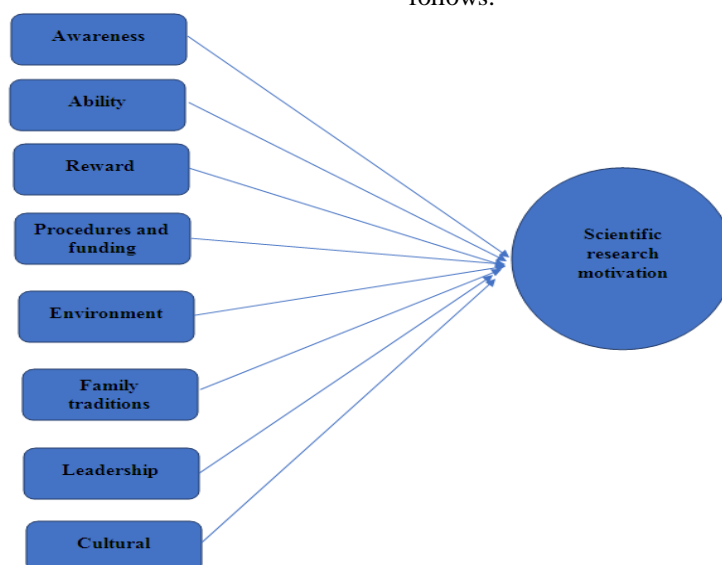
Source: Own editing

Figure 1: The research model identifies the factors that influencethe motivation of lecturers for scientific researchof lecturers at universities in the economic sector in Vietnam

IV.   RESEARCH RESULT

4.1. Testing the scale through Cronbach's Alpha analysis

Table 1: Cronbach's Alpha for factors affecting

Code	Scale	Cronbach's Alpha	Minimum total variable correlation coefficient	The coefficient if the largest variable is removed
AW	Awareness	0.956	0.767	.956
AB	Ability	0,905	.707	.899
RW	Reward	0,858	.577	.888
PC	Procedures and funding	0,892	.592	.901
EV	Environment	0,921	.601	0.941
FA	Family traditions	0,883	.634	.892
LD	Leadership	0,909	.639	.909
CU	Cultural	0,929	.863	.917
SM	Scientific research motivation	0,860	.544	.867

Source: Own edition and calculations (SPSS 22)

The results of table 1 above show that the test results of scale had goodaccuracy and the correlation coefficients of the total variables of measurement variables meet the allowed standard (> 0.6). Therefore, the scales in this study are all reliable to perform EFA analysis.

4.2. Exploratory Factor Analysis result (EFA)

Results of exploratory factor analysis EFA of independent variables with 41 observed variables, we have KMO test results for KMO = 0.909 > 0.5 and Barlett's test with Sig coefficient. = 0.000 < 0.05 (Table 2). From that, it can be concluded that the observed variables included in the analysis are correlated with each other and the EFA exploratory factor analysis is suitable for use in this study.

Table 2: Exploratory Factor Analysis result

	Component							
	1	2	3	4	5	6	7	8
AW5	.860							
AW6	.812							
AW4	.807							
AW3	.797							
AW7	.741							
AW2	.741							
AW1	.674							
PC2		.873						
PC3		.872						
PC5		.796						
PC6		.777						
PC1		.762						
PC4		.736						
CU3			.801					
CU2			.801					
CU1			.785					
CU5			.774					
CU4			.709					

EV3				.899			
EV1				.897			
EV2				.896			
EV4				.604			
EV5				.553			
AB5					.862		
AB4					.854		
AB3					.810		
AB2					.807		
AB1					.771		
PC2						.870	
PC5						.863	
PC4						.804	
PC1						.715	
PC3						.638	
RW4							.794
RW3							.793
RW1							.725
RW2							.661
FA4							.797
FA3							.794
FA1							.660
FA2							.543
Eigenvalues	37	45.775	52.897	59.646	65.202	69.390	73.128	76.442
Variance extracted	15.170	3.598	2.920	2.767	2.278	1.717	1.533	1.359
KMO= 0.909							Sig=0.000

Source: Own edition and calculations (SPSS 22)

The results of the EFA analysis of the dependent group in Table 3 show that the research indexes converge to one factor with the coefficient KMO = 0.815 > 0.5 and the sig of the Bartlett test = 0.000 < 0.05. Therefore, factor analysis is suitable.

Moreover, the Eigenvalues coefficient of the extracted factor group is 3,249 > 1, the total variance extracted for this factor is 64.983% > 50%, and the factor loading coefficients of the indexes are all greater than 0.5.

Table 3: Results of the EFA analysis of the dependent group

	Component
	1
SM5	.880
SM1	.836
SM2	.826
SM4	.797
SM3	.677
Eigenvalues	64.983
Variance extracted	3.249
KMO=0.815	Sig=0.000

Source: Own edition and calculations (SPSS 22)

4.3. Regression analysis

Regression analysis was performed with 8 independent variables and the selective method was Enter. The results of multivariate regression analysis are as follows:

Model	R	R^2	Adjusted RSquare	Std. Error of the Estimate	Durbin-Watson
1	.860[a]	.739	.735	.39926	1.734

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	242.102	8	30.263	189.842	.000[b]
	Residual	85.603	537	.159		
	Total	327.705	545			

a. Dependent Variable: SM
b. Predictors: (Constant), AW, AB, RW, PC, EV, FA, LD, CU, SM

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.399	.113		-3.537	.000		
	AW	.283	.033	.294	8.587	.000	.415	2.410
	AB	.158	.023	.173	7.010	.000	.797	1.255
	FA	.046	.030	.048	1.526	.128	.498	2.009
	PC	.199	.024	.217	8.257	.000	.701	1.426
	EV	.088	.028	.094	3.141	.002	.541	1.848
	RW	.113	.024	.136	4.803	.000	.605	1.653
	LD	.006	.024	.006	.258	.796	.795	1.258
	CU	.210	.029	.214	7.255	.000	.558	1.794

a.   Dependent Variable: SM

Source: Own edition and calculations (SPSS 20)

The results of the model show that the coefficient of adjustment R^2 = 0.739, it means that 73.9% of the variation of the dependent variable (Motivation for scientific research of university lecturers) is explained by the independent variables in the model. In addition, the F test also shows that the Sig value is very small (Sig. = .000), indicating that the model is consistent with the dataset under investigation.

The test results of multiple regression coefficients showed that the factors of average (awareness), internal capacity (ability), the average cost (procedures and funding), environmental protection (environment), reward (reward regime), culture, and condition. (Culture) has statistical significance in the model (Sig. < 0.05). 2 factors FA, LD> 0.05 have no statistical significance in the research model by Sig. < 0.05.

From the results of the regression model, we can derive a multiple regression equation representing the relationship between the independent and dependent variables as follows:
SM = -0.399+ 0.283 AW + 0.158 AB + 0.199PC + 0.088EV + 0.113RW + 0.210CU

In which: SM is the dependent variable representing the motivation for scientific research of university lecturers.
AW : Awareness
AB : Ability
PC: Procedures and funding
EV: Environment
RW: Reward
CU: Cultural

The results of multivariate regression analysis showed that 6 factors have an influence on the motivation of university lecturers to do scientific research, including (1) Awareness, (2) Ability, (3) Procedures and funding, (4) Environment, (5) Reward, (6) Cultural.

The factor *Awareness* has the greatest impact on the motivation of university lecturers to do scientific research with a regression coefficient of 0.283. Awareness of the benefits and significance of scientific research activities will greatly affect the motivation of lecturers to do scientific research. The first is that lecturers when participating in scientific research will help open up social relationships; learned a lot from fellow lecturers, from members participating in the topic. Participating in scientific

research activities is also a very good opportunity for lecturers to assert their capacity; have an environment, opportunities to foster and improve professional capacity as well as scientific research capacity.

Culture is the second factor affecting scientific research motivation of university lecturers majoring in economics with a regression coefficient of 0.21. The culture of a university is created from the atmosphere of pedagogical activities and scientific activities. An atmosphere of exciting scientific activities will create a strong culture that attracts talents and promotes a passion for scientific research, whereas a lack of excitement in scientific activities creates a weak culture as lecturers and lose motivation for scientific research. Therefore, in motivating scientific research for lecturers, university leaders need to build and maintain a strong culture in the university environment. A strong culture is shown through dedicated, serious, and careful guidance and guidance, concentration in scientific research, and above all, the spirit of respecting knowledge and science of the faculty.

Procedure and funding is the third factor that affects the motivation for scientific research of university lecturers majoring in economics with a regression coefficient of 0.199. The irrationality of funding for scientific research and allocation of funds has become a major obstacle to scientific research not only in private schools but also in large public schools. This is a key issue and a limitation of scientific research activities in universities. The budget for scientific research is less and not distributed rationally, which leads to the situation that lecturers only consider scientific research as a mandatory condition to be completed, not as motivation from the lecturers themselves.

Ability is a factor that has a lower impact on motivation for scientific research of university lecturers than university lecturers majoring in economics with a regression coefficient of 0.158. Teaching and scientific research are two compulsory tasks of lecturers; in which, the scientific research is highly emphasized, focused by the schools, set as a mandatory and regular task, and is an important leading standard to evaluate the comprehensive capacity of the lecturers. The fact that school teachers actively participate in scientific research activities is one of the important measures even considered mandatory to aim at improving the quality of training, better meet the needs of stricter society. Scientific research helps lecturers have conditions to deeply study the professional knowledge they are directly teaching, and promptly adjust and supplement the content of knowledge in their lectures. At the same time, it helps teachers develop thinking, creative capacity, and gain more understanding from knowledge from other disciplines. Conversely, if lecturers have professional competence as well as scientific research capacity, it will help lecturers enjoy and motivate scientific research and create more valuable scientific products.

The *reward* regime is a factor that has an impact on the scientific research motivation of university lecturers and university lecturers majoring in economics with a regression coefficient of 0.113. For lecturers to actively participate in scientific research to improve their qualifications, educational institutions need to have appropriate priority policies to encourage lecturers to conduct scientific research such as: (i) develop mechanisms and policies to create favorable conditions for lecturers to carry out scientific research and technology development projects and topics; (ii) financial support for internationally published scientific articles, especially articles published in prestigious international journals with high ISI/ Scopus index; (iii) linking scientific research results with the lecturer's annual emulation review.

Among the factors, the *environment* factor has the least impact on the motivation of scientific research of university lecturers majoring in economics with the lowest regression coefficient of 0.088. Universities have a good environment for scientific research when the university has a degree of academic freedom in researching without limitations, and the facilities meet the research needs of the faculty. members, easy access to resources and information. In addition, universities must create a good, friendly working and research environment, and lecturers are supported and encouraged when participating in scientific research activities.

V. CONCLUSION

Research on the motivation to promote scientific research activities and the factors affecting the scientific research motivation of university lecturers has attracted much attention from scholars around the world. For economic universities in Vietnam, this study shows that only 6 factors have a positive influence on the motivation of lecturers for scientific research, including (1) Awareness, (2) Ability, (3) Procedures and funding, (4) Environment, (5) Reward regime, (6). In which, awareness is the factor that has the greatest impact on the motivation of lecturers for scientific research. Therefore, to promote lecturers to actively conduct scientific research, universities need to create an

environment with good physical conditions as well as create a culture and atmosphere for scientific research. Along with that, universities need to have a clear reward system, large funding sources, and simple payment procedures for scientific research activities. Furthermore, in order to encourage lecturers to participate in scientific research activities, universities need to raise the awareness of lecturers about the benefits of scientific research for them when participating in scientific research activities.

REFERENCES

[1]. Rowland, S. (1996). Relationships between teaching and research. *Teaching in Higher Education,1*(1), 7-20.

[2]. Katz, E., & Coleman, M. (2002). The influence of research on career development at academic colleges of education in Israel. *Journal of Education for Teaching*, 28,45–61. https://doi.org/10.1080/02607470220125787.

[3]. Maslow, A.H. (1943) A theory of human motivation. *Psychological Review*, 50,4,370–96

[4]. Herzberg, F., Mausner, B., & Snydermann B.(1959). The motivation to work. New York:Wiley.

[5]. Vroom,V. (1964). Work and motivation. John Wiley and Sons, New York: 1964.

[6]. Hackman, J. R. & Oldham, G. R. (1974). The job diagnostic survey: An instrument for the diagnosis ofjobs and the evaluation of job redesign projects. Department of Administrative Sciences: Yale University.

[7]. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.

[8]. Ajzen, I., & Fishbein, M. (1975). A Bayesian analysis of attribution processes. *Psychological bulletin*, 82(2), 261.

[9]. Fishbein, M., & Ajzen, I. (2005). Theory-based behavior change interventions: Comments on Hobbis and Sutton. *Journal of health psychology*, 10(1), 27-31.