



## Factors Influencing Scientific Research Motivation of Lecturers at Dai Nam University

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### ABSTRACT

This study explores the factors influencing scientific research motivation among lecturers at Dai Nam University, a private higher education institution in Vietnam. Recognizing the essential role of research in university development and reputation, the study aims to identify key elements that affect lecturers' willingness and drive to conduct research. An integrated theoretical framework is employed, combining self-determination theory, expectancy theory, and intrinsic–extrinsic motivation concepts, with the addition of a new variable: personal career orientation. The research utilizes a mixed-method approach. Qualitative data was collected through interviews, while quantitative data was obtained via 202 valid survey responses using a 5-point Likert scale. Structural Equation Modeling with SmartPLS was applied to evaluate the measurement model and test the hypotheses. Findings reveal that career orientation, recognition from the institution, and self-efficacy are the most significant factors positively influencing research motivation. In contrast, institutional support and reward value have weaker impacts. The study concludes that long-term personal goals and internal drivers play a more decisive role than short-term or purely external incentives. These insights lead to practical recommendations for policy reforms in private universities to cultivate a research-driven academic culture aligned with lecturers' intrinsic motivations.

Keywords: Research Motivation, Private Universities, Academic Engagement

### 1. INTRODUCTION

Scientific research has become a critical pillar in evaluating the quality and ranking of higher education institutions, especially within the context of Vietnam's rapid educational reform. For private universities like Dai Nam University, promoting research activities among lecturers is not only a matter of academic responsibility but also a strategic imperative to enhance institutional reputation, attract talent, and ensure long-term development.

However, in practice, the motivation for scientific research among lecturers remains uneven. Many lecturers face constraints such as limited institutional support, unclear reward mechanisms, heavy teaching workloads, and insufficient autonomy in choosing research directions. These barriers hinder the formation of a strong research culture, particularly in non-public universities where teaching obligations often take priority over research. Moreover, from a theoretical perspective, existing studies often focus narrowly on either intrinsic or extrinsic motivation without offering a comprehensive model that integrates both internal desires and external conditions. The role of personal career orientation—a long-term, self-driven factor—has also been underexplored.

To address these gaps, this study proposes an integrated research model grounded in three well-established theories: Self-Determination Theory (Deci & Ryan), Expectancy Theory (Vroom), and the dualistic framework of intrinsic versus extrinsic motivation. The model is further expanded by including the variable "career orientation" to reflect the lecturers' personal goals and ambitions in their academic path.

The main objectives of the study are: (1) to identify the core factors affecting lecturers' motivation to engage in scientific research; (2) to assess the relative impact of these factors; and (3) to propose policy-oriented recommendations to enhance research motivation in private universities. The study contributes both theoretically—by developing a comprehensive framework of motivation in the academic context—and practically—by offering evidence-based suggestions to foster research engagement among lecturers in institutions with limited resources.

### 2. LITERATURE REVIEW

Research motivation has long been a subject of interest in the field of higher education. Various theoretical approaches have been developed to explain why lecturers engage in academic research and how institutional conditions shape their motivation. Among the most widely recognized is **Self-Determination Theory (SDT)** by Deci and Ryan, which suggests that motivation stems from the fulfillment of three core psychological needs:

**autonomy, competence, and relatedness.** When these needs are adequately met, individuals are more likely to experience intrinsic motivation, which plays a vital role in sustaining long-term engagement with scholarly work.

Complementing SDT is **Expectancy Theory** (Vroom), which focuses on the perceived link between effort, performance, and reward. In academic settings, this means that lecturers are more likely to commit to research activities when they believe that their efforts will result in meaningful outcomes—such as recognition, promotion, or institutional support. In addition, numerous studies have distinguished between **intrinsic and extrinsic motivation**, showing that intrinsic drivers are generally more effective in fostering creativity and deep involvement in research. On the other hand, extrinsic motivators, such as financial incentives or administrative pressure, may boost participation temporarily but are unlikely to result in sustained engagement.

While these theories offer valuable insights, a common limitation in existing research is the tendency to treat motivational factors in isolation. Few studies have attempted to build an integrated model that considers both personal psychology and institutional context. Furthermore, prior research has often centered on public or research-intensive universities, with relatively little focus on **non-public (private) universities**—despite the unique challenges they face, such as limited research funding, high teaching loads, and underdeveloped reward systems.

Another underexplored area is the role of **career orientation** as a motivational factor. Although some studies acknowledge its relevance, there is still a lack of empirical work testing how long-term career goals influence lecturers' research behavior, particularly in Vietnamese higher education. This study aims to address these gaps by proposing a comprehensive model that combines multiple theoretical perspectives and incorporates career orientation as an independent, measurable variable. Focusing on a private university context, the research seeks to provide a more complex appraisal of research motivation across diverse academic environments.

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### 3. RESEARCH MODEL AND HYPOTHESES

To thoroughly explore what drives lecturers' motivation for scientific research, this study combines different theories and creates a research model based on previous studies and real-world situations. The model incorporates seven independent variables hypothesized to have an impact on the dependent variable: **Lecturers' Scientific Research Motivation**.

The theoretical foundation is grounded in three primary motivational theories. **Self-Determination Theory (SDT)** emphasizes the emotional requirements for autonomy, competence, and relatedness, which are represented in this study through the variables of **Autonomy** and **Self-Perceived Competence**. **Expectancy Theory** underlines the expectancy-effort-reward relationship, reflected in the variables of **Institutional Support Policies** and **Reward Value**. The study also includes the idea of intrinsic and extrinsic motivation, acknowledging both personal reasons (like **Career Goals**) and outside factors (such as **Organizational Recognition** and **Research Environment**) that influence lecturers' involvement in research activities.

The proposed model is illustrated in Figure 1.1, where each independent factor is linked to the central dependent variable—**Lecturers' Scientific Research Motivation**. The model aims to test the following hypotheses:

H1: A supportive **Research Environment** positively influences lecturers' research motivation.

H2: **Institutional Support Policies** have a significant positive effect on research motivation.

H3: **Recognition from the Organization** enhances lecturers' research engagement.

H4: The **Value of the rewards** perceived by lecturers contributes positively to their motivation.

H5: A higher sense of **Autonomy** strengthens motivation for research.

H6: **Self-Perceived Competence** is positively associated with research motivation.

H7: Clear **Personal Career Goals** significantly impact motivation to conduct research.

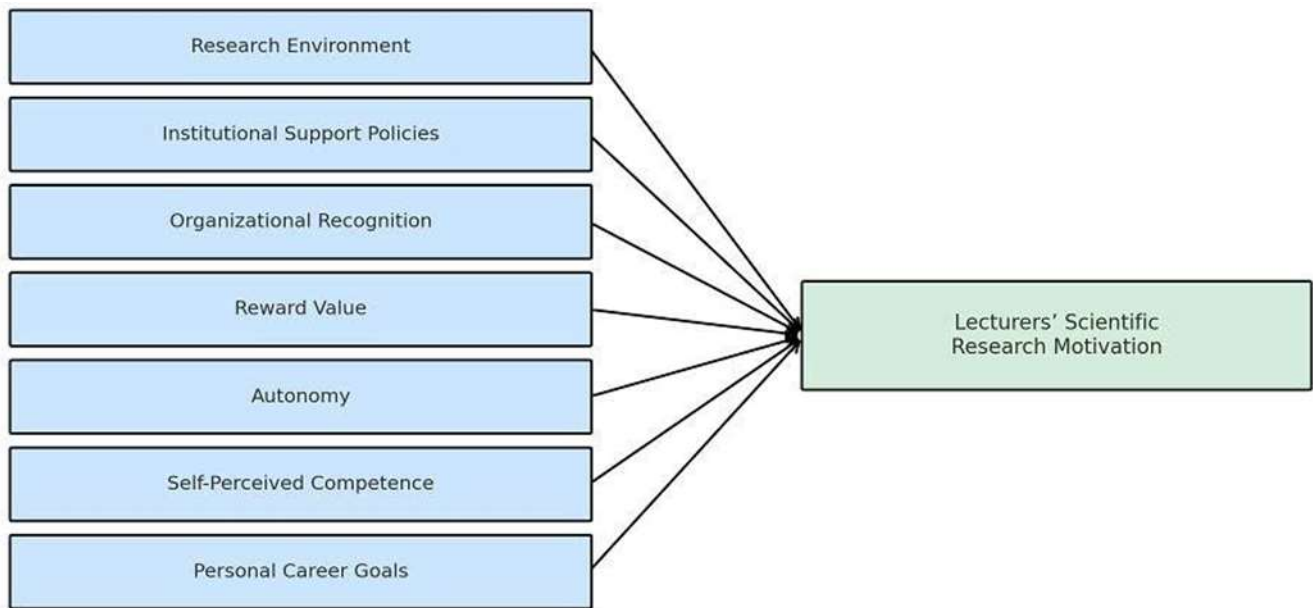


Figure 1: Proposed Research Model

These hypotheses reflect the multi-dimensional nature of motivation, combining both personal (internal) and institutional (external) factors. By validating this model, the study seeks to clarify which factors play dominant roles in shaping research behavior among lecturers at private universities, and how they can be leveraged to design more effective support mechanisms. The model also introduces **Career Orientation** as a novel component, distinguishing this study from previous ones that have rarely included long-term personal aspirations as a measurable predictor of research motivation.

## 4. RESEARCH METHODOLOGY

This study employs a **mixed-methods research design** to investigate the determinants of scientific research motivation among lecturers in a private university context. The methodological framework is structured to ensure both **theoretical rigor** and **contextual relevance**, integrating qualitative insights with quantitative validation.

### 4.1 Research Design

The research process was divided into two sequential phases. The **qualitative phase** involved semi-structured interviews with a purposive sample of ten lecturers and academic managers at Dai Nam University. The objective was to gain deeper knowledge regarding institutional barriers, perceived incentives, and individual motivational dynamics in scientific research. Insights gleaned from this phase were used to refine the conceptual framework and inform the development of the survey instrument.

In the **quantitative phase**, a structured questionnaire was administered to test the proposed model and hypotheses. The instrument was constructed based on previously validated scales from extant literature, with contextual modifications to ensure cultural and institutional appropriateness. All items were measured using a five-point Likert scale (1 = Strongly disagree to 5 = Strongly agree).

### 4.2 Sampling and Data Collection

The study targeted full-time lecturers across multiple faculties at Dai Nam University. A total of **202 valid responses** were collected using a method that ensured all four areas of study were represented: (1) Business and Economics, (2) Social Sciences and Humanities, (3) Engineering and Technology, and (4) Health Sciences. The sample included diversity in terms of gender, academic rank, and teaching tenure, enhancing the generalizability of the findings within the institutional context.

### 4.3 Data Analysis Procedures

We analyzed quantitative data using **Partial Least Squares Structural Equation Modeling (PLS-SEM)** via **SmartPLS 4.0**. This technique is well-suited for testing complex models with latent constructs and small to medium sample sizes. The analytical procedure comprised two main stages:

- **Assessment of the measurement model**, focusing on construct reliability (using Cronbach's Alpha and Composite Reliability), convergent validity (Average Variance Extracted – AVE), and discriminant validity.

- **Evaluation of the structural model**, which looked at path coefficients,  $R^2$  values, and whether the expected relationships were statistically significant by using a bootstrapping method with 5,000 samples.

We also computed descriptive statistics to scrutinize demographic characteristics and general trends in motivational factors. We also conducted a multigroup analysis to explore potential variations across demographic subgroups..

#### 4.4 Ethical Considerations

The study adhered to ethical standards in social science research. Participants were fully informed of the study's objectives and data confidentiality protocols. Participation was voluntary, and no personally identifiable information was collected.

## 5. RESULTS AND DISCUSSION

This chapter presents the empirical findings derived from the quantitative phase of the study and discusses their implications in light of the proposed research model. The analysis uses a two-step process in Partial Least Squares Structural Equation Modeling (PLS-SEM): (1) checking the measurement model, and (2) assessing the structural model. The results are interpreted with reference to the initial hypotheses and relevant theoretical frameworks.

### 5.1 Measurement Model Evaluation

The measurement model demonstrated acceptable reliability and validity. All constructs exceeded the recommended threshold of 0.70 for **Cronbach's Alpha** and **Composite Reliability (CR)**, indicating internal consistency. **Average Variance Extracted (AVE)** values were all above 0.50, confirming convergent validity. Discriminant validity was confirmed using the **Fornell-Larcker criterion** and **HTMT ratio**, which showed that each construct represented a different part of research motivation.

### 5.2 Structural Model Results

The structural model revealed significant relationships between the independent variables and the dependent construct, **Lecturers' Scientific Research Motivation**. Notably:

- **Career Orientation (CAR)** exerted the strongest effect on motivation ( $\beta = 0.35$ ,  $p < 0.001$ ), suggesting that lecturers with clear long-term academic goals are more likely to engage in sustained research activities.

- **Organizational Recognition (REC)** and **Self-Perceived Competence (SEL)** were also important factors ( $\beta = 0.32$  and  $\beta = 0.28$ , respectively), showing that being appreciated by the institution and having self-confidence can greatly influence research activities.

- **Autonomy (AUT)** and **Research Environment (ENV)** had moderate but important effects ( $\beta = 0.20$  and  $\beta = 0.18$ , respectively), which supports Self-Determination Theory that highlights the role of independence and supportive surroundings as key factors for motivation.

- Conversely, **Reward Value (VAL)** and **Institutional Support (INS)** exhibited weaker effects ( $\beta = 0.12$  and  $\beta = 0.10$ ), although still statistically significant at  $p < 0.05$ .

The model explained approximately **62% of the variance** in research motivation ( $R^2 = 0.62$ ), indicating a strong explanatory power and overall model fit.

### 5.3 Discussion

The findings provide robust empirical support for the integrated theoretical framework. Consistent with **SDT**, the perception of competence and autonomy emerged as significant internal drivers of motivation. The importance of **Expectancy Theory** is clear, but the limited effect of support and rewards from institutions shows that just offering external incentives isn't enough to keep people engaged in research for a long time, especially in private universities where resources are tight and recognition is less formal.

The **strong impact of career orientation** highlights the critical role of personal goal-setting and self-directed ambition, an area often underemphasized in existing models. The finding suggests that motivational interventions should not only focus on extrinsic factors (e.g., funding or workload reduction), but also support individual career development plans and mentorship structures.

In sum, the results emphasize that a multidimensional approach—balancing personal, professional, and institutional considerations—is essential for cultivating sustainable research engagement among university lecturers.

## 6. CONCLUSION

This study has endeavored to raise awareness about scientific research motivation among lecturers within the context of a private Vietnamese university. By creating and testing a combined model, the research offers a detailed look at how both personal feelings and university policies work together to affect lecturers' involvement in research at higher education institutions.

The proposed model, based on Self-Determination Theory (SDT), Expectancy Theory, and the idea of intrinsic and extrinsic motivation, included seven key factors that are believed to affect research motivation: the research environment, support from the institution, recognition from the organization, the value of rewards, independence, self-confidence, and personal career goals. Using a combination of methods and data from 202 full-time lecturers, the study used Partial Least Squares Structural Equation Modeling (PLS-SEM) to check the measurement model and look at the relationships between the variables.

The empirical findings confirm that **personal career orientation** emerges as the most influential factor in predicting lecturers' motivation to conduct research. This is followed by **organizational recognition** and **self-perceived competence**, both of which are consistent with the foundational tenets of SDT. These results highlight the importance of personal and internal motivations, indicating that lecturers are more likely to stay engaged in research when they feel their academic goals match with the support and recognition they receive from their institutions.

On the other hand, while **institutional support** and **reward value** were important, they were not as strong in explaining motivation, which means that outside incentives alone might not be enough to motivate lecturers, especially in non-public institutions where research cultures are still growing.

The study contributes to the literature by proposing a novel synthesis of theoretical frameworks and empirically validating a multidimensional model of research motivation. Importantly, it introduces **career orientation** as a critical yet previously underexplored construct, thereby broadening the scope of motivational inquiry in academic research.

However, we must acknowledge certain limitations. The study is context-specific, focusing on a single institution, which may limit generalizability. Moreover, its cross-sectional design precludes longitudinal analysis of motivational change over time. Future studies could improve by including participants from various institutions, using designs that track changes over time, and looking into factors like leadership style, academic workload, or research training opportunities that might influence motivation.

In conclusion, fostering scientific research motivation in higher education—especially within private sector institutions—necessitates more than structural reforms or financial incentives. It requires a strategic, holistic approach that cultivates a culture of recognition, professional growth, and alignment between individual and institutional goals. Only through such an integrated framework can institutions meaningfully support and sustain academic research as a core component of their mission.

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