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DRIVERS OF EMPLOYEE PERFORMANCE: THE ROLE OF INSTITUTIONAL SUPPORT IN ELEVATING CAREER GROWTH

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Abstract

This study aims to analyze the relationship between scientific publication productivity and the academic promotion of lecturers. Scientific publication productivity is a crucial indicator of academic performance, making it important to explore the factors that influence lecturers' publication productivity to design more effective strategies for improving the quality and quantity of publications. This quantitative study involved 112 lecturers (15% of those promoted in the last five years), using surveys and secondary institutional data. Regression analysis was used to examine the effect of scientific publication productivity on academic promotion, and the data were analyzed using descriptive and statistical methods. The results show that institutional support is the strongest factor influencing academic promotion. Institutional support, research experience, and publication quality significantly affect scientific publication productivity. Moreover, publication productivity mediates the relationship between institutional support and publication quality with academic promotion. These findings imply that improving academic promotion at the local level requires two key strategies: strengthening institutional support and enhancing scientific publication productivity.

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INTRODUCTION

Productivity is an essential measure of how effectively individuals or organizations achieve their predetermined goals. In general, productivity refers to the ability to generate maximum output by using available resources efficiently. Higher productivity provides greater added value to its context, whether economic, social, or scientific.

In organizational settings, productivity is closely related to human resource management. Effective human resource management ensures that individuals are placed, developed, and supported according to their potential. This includes capacity building, performance evaluation, and career development to enhance employee contributions. Well-managed human resources help organizations maintain high productivity and sustain long-term growth.

In higher education institutions, lecturers are key human resources whose productivity strongly influences institutional performance. Scientific publications are one of the main indicators reflecting the quality and productivity of lecturers (Hesli & Lee, 2011). The production of scientific publications is also a key criterion in the academic promotion process (Kemendikbudristek, 2019). However, many lecturers face challenges in meeting this requirement, such as time constraints, limited access to reputable journals, and funding barriers (Abramo et al., 2017; Shin, 2014). Previous studies have shown a strong link between scientific publishing and academic advancement (Goodwin & Sauer, 1995), yet at the local level,

in-depth research on scientific publication productivity remains limited, indicating the need for further studies.

Research productivity also plays an important role in improving the performance and evaluation of higher education research (Wahid et al., 2022). Enhancing publication productivity requires understanding the factors that influence scientific publication output. Therefore, it is important to explore these factors in depth to design more effective strategies for improving the quality and quantity of publications.

The obligation to produce scientific publications is emphasized especially for lecturers holding higher academic positions such as Associate Professor and Professor (Kementerian Riset, Teknologi, dan Pendidikan, 2017). This is because the management of careers at these levels is under the jurisdiction of the Ministry of Higher Education, Science, and Technology. Meanwhile, the requirement for lecturers at the Instructor and Assistant Professor levels is regulated under the Minister of Administrative and Bureaucratic Reform Regulation No. 17 of 2013 concerning academic ranks and credit scores.

The government has also issued more detailed technical guidelines to support the systematic implementation of lecturer career coaching and development (PermenpanRB, 2023; Kepmendikbudristek, 2024). These policies aim to ensure effective academic rank management by integrating data updating, performance assessment, and promotion mechanisms based on lecturers' achievements. Their implementation requires synergy between the government, universities, and lecturers to develop concrete steps that support sustainable lecturer career development.

Multiple research findings demonstrate a significant link between the level of scientific publishing productivity and academic career progression (Abramo et al., 2017; Goodwin & Sauer, 1995; Merton, 1968). However, at the local level, research on scientific publication productivity is still limited, which highlights the need for further studies.

LITERATURE REVIEW

Institutional Support

Institutional Support is defined as policies and facilities provided by the institution to support lecturer productivity. Library support as an environmental factor can increase publication productivity (Wahid et al., 2022). The availability of internet access and electronic information resources within an institution influences both individual and overall institutional publication output (Wahid et al., 2022). In line with this, institutional and library support in providing access to digital resources, funding, and collaboration opportunities contribute to increasing individual publication productivity. Availability of standardized database resources is crucial for advancing academic research within universities. (Rafi et al., 2019). Moreover, the presence of professional and university-published journals contributes to greater productivity in individual and institutional publications.

H1: It is suspected that institutional support affects publication productivity

Research Experience

Research Experience refers to the length and extent of involvement in research activities. It serves as an essential benchmark for assessing the academic and professional qualifications of lecturers or researchers. In higher education, research experience involves active participation in various scientific tasks, such as problem identification, proposal development, research implementation, data analysis, report writing, and publication of findings. Bland et al. (2005) state that research experience is a key factor influencing academic output, as researchers with broader and more varied experience tend to produce more publications and higher-quality articles. In Indonesia, the Directorate General of Higher Education (Ditjen Dikti) emphasizes the importance of research experience in academic promotion assessments, where the quantity of research conducted and its impact through publications, innovations, or community contributions are considered.

H2: It is suspected that research experience affects publication productivity

Publication Quality

Publication Quality refers to the standard of journals in which lecturers publish their work. According to Mingers and Yang (2016), journal quality can be reflected through bibliometric indicators such as Impact Factor, SJR, and h-index, as well as through the rigor of the editorial process, transparency, and the quality of article content. In higher education and scientific research, publication quality is a key indicator of academic contribution, assessed not only by the number of articles published but also by the reputation of the journals and the scientific merit of the articles.

H3 : It is suspected that publication quality affects publication productivity

Publication Productivity

Publication Productivity is defined as the level of lecturers' ability to produce scientific

works periodically. Some previous studies (Kyvik & Aksnes, 2015; Teodorescu, 2000). indicated that the level of scientific publication output is assessed by counting the number of published scientific articles. Increases were observed in the quantity of national and international journals, available journal slots, conference proceedings, and book series. Scientific publication productivity is indicated by four types, namely published books, published journals, papers presented at conferences, and research plans carried out (Hedjazi and Behravan 2011). Nonetheless, some research points out that success in scientific publishing is gauged by the quantity of articles appearing in international journals and conference proceedings (Usang et al., 2007)

H4: It is suspected that scientific productivity affects academic promotion

Increase in Academic Position

Promotion in academic rank for lecturers serves as the government's way of acknowledging their professional contributions. Consequently, lecturers who fulfill the requirements outlined in regulations deserve recognition through academic advancement (Kemendikbudristek, 2019). The increase in academic position/rank of lecturers is an integral part of lecturer career development. In this study, academic promotion is defined as the advancement of lecturers' academic careers in accordance with established regulations.

Academic advancement serves both as a right and a duty for all lecturers, while also functioning as an indicator of their performance (Setiawati, 2023). The advancement of a lecturer's academic rank is achieved by applying for a credit score evaluation, covering the three core responsibilities in higher education, submitted as required for each level under the regulations that define academic ranks.

H5: It is suspected that institutional support affects academic promotion

H6: It is suspected that publication quality affects academic promotion

H7: It is suspected that institutional support affects academic promotion through scientific publication productivity.

RESEARCH FRAMEWORK

This research aimed to investigate various factors that have an impact on publication productivity and determine the magnitude of the productivity influence on academic promotion and the magnitude of of institutional support influence on academic promotion. The structure of this study is presented below:

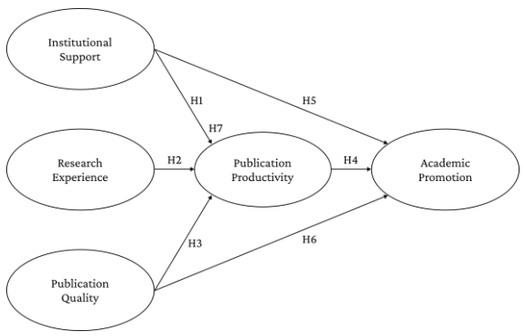

Figure 1. Research Framework

METHOD

This research employed a quantitative method, gathering data via surveys with questionnaires distributed to participants. The analysis and processing of data were performed using regression techniques supported by SPSS software.

The study employed a probability sampling method, ensuring that every individual in the population had an equal opportunity to be chosen as a sample (Priyono, 2016). The research sample consists of Using quantitative methods, this study collected data from lecturers through surveys and secondary data analysis from institutional reports. The sample of this research is 112 people (15%) of all Universitas Negeri Semarang lecturers who have been promoted in the last 5 years.

The variables of this study are listed in Table 1.

Table 1. Research Variables

Variable	Definition	Indicator
Publication Productivity	The level of ability of lecturers to produce scientific papers periodically	1. Number of articles/journals per year; 2. Citation index; 3. h-index
Increase in Academic Position	The advancement of lecturers' academic ranks in accordance with established regulations	1. Change of position from Instructor to lector, 2. lector to head lector, etc.

Institutional Support	Institutional policies and resources designed to enhance lecturer productivity	1. Research budget; 2. Journal access; 3. Publication training
Research Experience	Length of time spent in research activities	1. Total years of professional experience; 2. Number of research collaborations
Publication Quality	The level of quality of journals published by lecturers	1. SCOPUS index; 2. Quartile of journals; 3. Publisher reputation

This study collected data through literature analysis, questionnaires distributed to 112 staff members, participatory observations, and document reviews. The researcher was directly involved in the daily activities of the observed sources.

The validity of the questionnaire was tested using SPSS. An item was considered valid if its p-value was less than 0.05. Reliability was tested using the Cronbach's alpha coefficient, and the instrument was considered reliable if the value was greater than 0.70. This study used a quantitative descriptive approach. Questionnaire responses were converted into numerical scores using the Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Before conducting regression analysis, classical assumption tests were performed. Normality was tested using the One-sample Kolmogorov–Smirnov test, and the data were considered normally distributed if the significance value was greater than 0.05. Heteroscedasticity was tested using the Glejser test, and there was no heteroscedasticity if the significance value was greater than 0.05. Multicollinearity was tested using tolerance and Variance Inflation Factor (VIF) values, with no multicollinearity indicated if tolerance was greater than 0.1 and VIF was less than 10.

Path analysis was used to examine the effect of intervening variables. The analysis was carried out in two sub-structure stages based on the established path diagram. The coefficient of determination was measured using the Adjusted R^2 value, where a value closer to 1 indicated a stronger explanatory power of the independent variables.

An F-test was conducted to assess the joint influence of the independent variables on the dependent variable. The results were considered significant if the F statistic was greater than the F table or if the significance value was less than 0.05. A t-test was used to assess the individual effect of each independent variable on the dependent variable, and the effect was considered significant if the t statistic was greater than the t table and the significance value was less than 0.05.

RESULT AND DISCUSSION

This study examines the relationship between lecturers' scientific publication productivity and academic promotion at higher education institutions. After obtaining legal-entity status, the institution requires several changes, particularly in the area of human resource managemen. This research employed a quantitative method, collecting data through questionnaire distribution to participants. The instrument in the study used 15 question items to examine several factors that affect publication productivity and determine the magnitude of productivity influence on academic promotion and the magnitude of the influence of institutional support on academic promotion at Universitas Negeri Semarang.

Before the main analysis, the research instrument was tested for validity and reliability. All 15 items showed p-values below 0.05, indicating that they were valid. The reliability test using Cronbach's alpha produced a value of 0.840, which is higher than the minimum threshold of 0.70. Therefore, the instrument was considered suitable for further analysis.

After instrument testing, questionnaires were given to 112 lecturers at Universitas Negeri Semarang to gather data. The data then underwent classical assumption tests, including normality, heteroscedasticity, and multicollinearity assessments. The normality test using the One Sample Kolmogorov-Smirnov test produced a value of 0.867 surpassing the 0.05 significance level. This demonstrates that the data follows a normal distribution, fulfilling the normality assumption necessary for regression analysis.

The heteroscedasticity analysis via the Glejser test, indicating that the significance value for the Publication Productivity variable is 0.008, while for Institutional Support it is 0.773; The Research Experience variable has a value of 0.302, while the Publication Quality variable is at 0.639. The independent variables show a significance value on the absolute residuals of Academic Rank Advancement that is higher than the 5% (0.05) confidence level. This indicates that

the regression model does not encounter heteroscedasticity issues.

In this study, multicollinearity was evaluated by analyzing the tolerance and VIF values for each independent variable. The analysis results for the multicollinearity test reveal tolerance values as follows: 0.472 for Publication Productivity, 0.788 for Institutional Support, 0.503 for Research Experience, and 0.514 for Publication Quality. Since these tolerance values are all above 0.10, they indicate no multicollinearity. Additionally, the VIF values are 2.121 for Publication Productivity, 1.269 for Institutional Support, 1.988 for Research Experience, and 1.947 for Publication Quality, all of which are below the threshold of 10.00. Considering both tolerance and VIF values, it can be concluded that the regression model does not suffer from multicollinearity issues.

Once the classical assumption tests are satisfied, the data is deemed appropriate for path analysis. This method is employed to examine causal relationships in multiple regression scenarios where independent variables influence the dependent variable both directly and indirectly.

This research employed two structural models to assess the link between publication productivity and academic promotion. The first sub-structural equation model examined how institutional support, research experience, and publication quality influence publication productivity. The second model evaluated both the direct impact of these variables on academic promotion and their indirect influence mediated by publication productivity.

Table 2. The Effect of Institutional Support, Research Experience, and Publication Quality on Publication Productivity (Sub-structure 1)

Variable	Beta	t	Sig.
Institutional Support	0.243	3.44	0.001
Research Experience	0.327	3.73	0.000
Publication Quality	0.342	3.98	0.000

All three variables have a positive and significant effect on publication productivity. Institutional Support contributes a Beta of 0.243 ($p = 0.001$), Research Experience 0.327 ($p = 0.000$), and Publication Quality 0.342 ($p = 0.000$). This shows that higher levels of institutional support, research experience, and publication quality are directly associated with higher publication productivity. The adjusted R^2 of 0.515 means that 51.5% of the variance in publication productivity is explained by these three predictors, and the model is statistically significant as shown by the F value of 40.35 ($p<0.001$).

Table 3. The Effect of All Variables on Academic Promotion (Sub-structure 2)

Variable	Beta	t	Sig.
Institutional Support	0.741	15.46	0.000
Research Experience	0.049	0.82	0.417
Publication Quality	-0.040	-0.68	0.498
Publication Productivity	0.262	4.23	0.000

Institutional Support and Publication Productivity significantly influence academic promotion. Institutional Support shows the strongest effect (Beta = 0.741, $p = 0.000$), followed by Publication Productivity (Beta = 0.262, $p = 0.000$). Meanwhile, Research Experience ($p = 0.417$) and Publication Quality ($p = 0.498$) are not significant. This indicates that academic promotion is primarily driven by institutional support and is strengthened by higher publication productivity. The adjusted R^2 of 0.799 means that 79.9% of the variance in academic promotion is explained by the four predictors, with a very strong overall model fit ($F = 111.34$, $p < 0.001$).

Table 4. Indirect Effects through Publication Productivity

Path	Calculation	Value
Institutional Support → Productivity → Promotion	0.243 × 0.262	0.064
Research Experience → Productivity → Promotion	0.327 × 0.262	0.086
Publication Quality → Productivity → Promotion	0.342 × 0.262	0.090

There are notable indirect effects through publication productivity. Institutional Support indirectly influences academic promotion by 0.064, Research Experience by 0.086, and Publication Quality by 0.090. This confirms that publication productivity acts as a mediator between these predictors and academic promotion.

Table 5. Total Effects of All Variables

Variable	Direct Effect	Indirect Effect	Total Effect
Institutional Support	0.741	0.064	0.805
Research Experience	0.049	0.086	0.135
Publication Quality	-0.040	0.090	0.050
Publication Productivity	0.262	–	0.262

Institutional Support shows the largest total effect on academic promotion (0.805), driven by both direct and indirect influence. Research Experience has a smaller total effect (0.135). Publication Quality has no direct effect but contributes indirectly via publication productivity (total 0.050). Publication Productivity itself has a direct effect of 0.262 on academic promotion. This confirms that institutional support is the key driver of academic promotion, both directly and through its impact on publication productivity.

Table 6. Summary of Hypothesis Testing

Hypothesis	Statement	Result
H1	Institutional Support → Publication Productivity	Accepted
H2	Research Experience → Publication Productivity	Accepted
H3	Publication Quality → Publication Productivity	Accepted
H4	Publication Productivity → Academic Promotion	Accepted
H5	Institutional Support → Academic Promotion	Accepted
H6	Publication Quality → Academic Promotion	Rejected
H7	Institutional Support → Academic Promotion (through Publication Productivity)	Accepted

H1, H2, and H3 are accepted, meaning that Institutional Support, Research Experience, and Publication Quality significantly increase Publication Productivity. H4 and H5 are also accepted, showing that Publication Productivity and Institutional Support significantly affect Academic Promotion. H6 is rejected because Publication Quality does not have a direct effect on Academic Promotion. H7 is accepted, confirming that Institutional Support also affects Academic Promotion indirectly through Publication Productivity.

The results confirm that Institutional support significantly increases publication productivity. This aligns with previous studies showing that a supportive institutional environment improves lecturers' publication output (Muhammad et al., 2023). A conducive institutional environment combined with individual performance can strengthen the reputation of higher education institutions.

Research experience also significantly affects publication productivity. Prior studies found that literacy and research experience

improve lecturers' ability to produce scientific work (Yumame et al., 2020) (Hemmings, Brian and Kay, 2010). Limited experience makes it harder for young lecturers to manage time and tasks, reducing their productivity.

Publication quality has a significant positive effect on publication productivity. This means journal reputation, collaboration, and research experience play an important role (Kyvik & Aksnes, 2015; Wahid et al., 2022). However, at the local level, there are still challenges in increasing the proportion of publications in reputable international journals. This requires interventions such as writing training, access to scientific databases, and international collaboration policies (Altbach et al., 2010).

Publication productivity significantly affects academic promotion. This supports the view that publishing scientific papers contributes positively to lecturers' career advancement (Gunarto & Haddy, 2023). Institutional support has an even stronger direct effect on academic promotion than publication productivity.

Publication productivity also acts as a mediator between institutional support and academic promotion. This supports the Matthew Effect (Merton, 1968), which states that supportive institutions help productive individuals achieve more. This highlights the need for research funding, training, access to resources, and mentoring systems to strengthen institutional support.

Interestingly, publication quality has no direct effect on academic promotion. This may be because most respondents are at the Instructor or Assistant Professor level, where journal quality requirements are less strict than for higher ranks.

At the local level, these findings highlight the need for more systematic institutional policies to improve lecturers' publication productivity and career development. Recommended policies include publication incentives, proportional workload management, achievement-based performance appraisal systems, mentoring for young lecturers, competitive research funding, and incentives based on publication quality. Such measures are essential to support more effective and measurable lecturer career development.

CONCLUSION AND RECOMMENDATION

This study shows that Institutional support, Research experience, and Publication quality significantly increase Publication productivity. Publication productivity and institutional support also have a significant effect on Academic promotion, with institutional support being the strongest predictor. Publication quality does not directly influence academic promotion, and its impact appears only indirectly through publication productivity.

Publication productivity serves as a mediator between institutional support and academic promotion. This confirms that a supportive institutional environment is crucial for boosting lecturers' publication output, which in turn accelerates their academic promotion. These findings emphasize that increasing academic promotion at the local level depends on two main strategies: improving institutional support and strengthening publication productivity.

The institution needs to develop policies that provide strong research support, including competitive research funding and access to scientific resources. In addition, the institution should implement mentoring programs for early-career lecturers to improve their research experience and writing skills. Regular training on academic writing and publication strategies, especially targeting reputable international journals, also needs to be provided. Performance appraisal systems based on measurable achievements and publication outcomes should be applied to evaluate lecturers' performance objectively.

The distribution of lecturers' workloads should be managed proportionally to give them sufficient time for research and publication activities. The institution should also offer incentives linked to the quality and impact of publications to motivate lecturers to publish in high-ranked journal.

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