

The Role of Extrinsic Motivation and Quality Culture in Enhancing Higher Education Institutional Performance

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Abstract: *This study aims to examine the effect of extrinsic motivation on higher education institutional performance, the effect of extrinsic motivation on quality culture, the effect of quality culture on higher education performance, and the mediating role of quality culture in the relationship between extrinsic motivation and institutional performance. A quantitative survey approach was employed involving 398 lecturers from higher education institutions in Riau Province, Indonesia, selected using the Slovin formula. Data were collected through an online questionnaire and analyzed using Partial Least Squares (PLS) with SmartPLS software. The results indicate that extrinsic motivation has a positive and significant effect on both higher education performance and quality culture. In addition, quality culture positively and significantly influences higher education performance. The mediation analysis confirms that quality culture mediates the relationship between extrinsic motivation and higher education performance, thereby strengthening the effect of extrinsic motivation on institutional performance through the enhancement of quality culture. These findings suggest that improving higher education performance depends not only on the provision of incentives and rewards but also on the institution's ability to establish a sustainable quality culture.*

Abstrak : *Penelitian ini bertujuan menganalisis pengaruh motivasi ekstrinsik terhadap kinerja perguruan tinggi, pengaruh motivasi ekstrinsik terhadap budaya mutu, pengaruh budaya mutu terhadap kinerja perguruan tinggi, serta peran budaya mutu sebagai variabel mediasi. Penelitian menggunakan pendekatan kuantitatif dengan metode survei terhadap 398 dosen perguruan tinggi di Provinsi Riau yang dipilih menggunakan rumus Slovin. Data dikumpulkan melalui kuesioner daring dan dianalisis menggunakan Partial Least Squares (PLS) dengan bantuan SmartPLS. Hasil penelitian menunjukkan bahwa motivasi ekstrinsik berpengaruh positif dan signifikan terhadap kinerja perguruan tinggi serta budaya mutu. Selain itu, budaya mutu juga berpengaruh positif dan signifikan terhadap kinerja perguruan tinggi. Hasil pengujian mediasi membuktikan bahwa budaya mutu mampu memediasi hubungan antara motivasi ekstrinsik dan kinerja perguruan tinggi, sehingga pengaruh motivasi ekstrinsik terhadap kinerja menjadi lebih kuat melalui penguatan budaya mutu. Temuan ini menunjukkan bahwa peningkatan kinerja perguruan tinggi tidak hanya bergantung pada pemberian insentif dan penghargaan, tetapi juga pada kemampuan institusi dalam membangun budaya mutu yang berkelanjutan.*

Keywords : *Extrinsic Motivation, Quality Culture, Higher Education Performance, Resource-Based View, Higher Education Institutions*

INTRODUCTION

Indonesia is one of the countries with the largest number of higher education institutions (HEIs) in the world, with 4,075 institutions recorded in 2024, ranking second globally after India (Carey, 2017;

Murdowo, 2018). In Riau Province alone, there were 119 HEIs, yet only two universities were included in the national ranking of top institutions (BPS, 2024; Hermawan et al., 2019). This condition highlights the importance of improving higher education performance to enhance institutional competitiveness.

Higher education performance remains a multidimensional concept that has been evaluated from various perspectives, including financial performance, innovation, research, operations, services, internationalization, and governance (Feranecova & Krigovska, 2016; Gao, 2018; Asiedu et al., 2020; Alshaikhmubarak et al., 2020; Kinanti et al., 2020). However, recent studies suggest that teaching, research, and service represent the three core dimensions of university performance (Iqbal et al., 2022; Agasisti & Bertolotti, 2019; Compagnucci & Spigarelli, 2020).

Among the factors affecting organizational performance, employee motivation has received considerable attention. Motivation plays a crucial role in directing and sustaining employee behavior toward organizational goals (Badura et al., 2020; Dewi & Wibowo, 2020). Previous studies have reported positive relationships between motivation and both individual and organizational performance (Makki & Abid, 2017; Geelmaale, 2019; Engidaw, 2021). Nevertheless, findings regarding extrinsic motivation remain inconsistent. While some studies found that extrinsic motivation positively influences faculty performance (Olushola & Adewumi, 2021), others reported no significant relationship with employee engagement (Zeng et al., 2022).

Extrinsic motivation refers to external incentives such as financial rewards, recognition, promotions, and performance allowances that encourage employees to achieve organizational objectives (Lestary, 2023). In higher education institutions, such incentives have been shown to enhance academic performance, research productivity, and learning outcomes (Olushola & Adewumi, 2021; Rismayantia et al., 2022). However, motivation alone may not be sufficient to improve institutional performance sustainably.

A quality culture is increasingly recognized as a strategic organizational capability that supports continuous improvement and institutional effectiveness (Bendermacher et al., 2017; Herminingsih & Sadikin, 2021). Previous studies have demonstrated that quality culture positively influences organizational performance (Yusof & Ali, 2000; Ali & Musah, 2012; Katwalo & Asienga, 2015; Hilman et al., 2017). Despite this evidence, limited research has examined quality culture as a mediating mechanism through which extrinsic motivation affects higher education performance.

Drawing upon the Resource-Based View (RBV), this study proposes that extrinsic motivation serves as a strategic organizational resource, while quality culture functions as an organizational capability that transforms motivational resources into superior institutional outcomes. Although previous studies have examined the direct effects of motivation and quality culture on organizational performance, limited attention has been given to the mechanism through which motivational resources

are converted into higher education performance. Therefore, this study extends the RBV by conceptualizing quality culture as an organizational capability that transforms motivational resources into higher education institutional performance. This study investigates the relationships among extrinsic motivation, quality culture, and higher education performance, with particular attention to the mediating role of quality culture.

Extrinsic Motivation and Higher Education Performance

Extrinsic motivation refers to an individual's effort to obtain external rewards such as salaries, bonuses, promotions, recognition, and other organizational incentives rather than the inherent satisfaction derived from the activity itself (Rita et al., 2018; Zeng et al., 2022; Jeni et al., 2020). As a managerial tool, extrinsic motivation is widely used to improve employee performance and organizational outcomes. Previous studies have reported inconsistent findings regarding its effectiveness. Several studies found that extrinsic motivation positively influences employee performance (Makki & Abid, 2017; Jeni et al., 2020; Mazllami, 2020; Noorazem et al., 2021), whereas others reported no significant relationship with performance or work engagement (Olafsen et al., 2015; Kuvaas et al., 2017; Nurennny & Hidayat, 2020; Zeng et al., 2022). In higher education institutions, empirical evidence generally supports its positive role. Rasheed et al. (2016) found that compensation, work environment, performance management systems, and training opportunities positively influence faculty motivation, while studies in Nigeria showed that monetary and non-monetary incentives significantly improve teacher and instructor performance (Alade & Okeke, 2021; Olushola & Adewumi, 2021). However, Horodnic and Zait (2015) reported a negative relationship between extrinsic motivation and research productivity, suggesting that contextual factors may shape its effectiveness. Turner (2017) further argued that although no motivational approach is universally superior, extrinsic motivation remains an important mechanism for directing employee behavior when organizational expectations are clearly communicated. Given these inconsistent findings and the limited evidence within higher education, further investigation is required to clarify the relationship between extrinsic motivation and higher education institutional performance.

Extrinsic Motivation and Quality Culture

Extrinsic motivation has been widely examined as a predictor of organizational outcomes, yet its relationship with quality culture remains underexplored. Organizational culture refers to a system of shared values, beliefs, norms, and behaviors that guide organizational members in their interactions and decision-making processes (Gautam & Basnet, 2021; Chartered Management Institute, 2015), while quality culture emphasizes a collective commitment to continuous quality improvement and

organizational excellence (Dellana & Hauser, 1999; Bendermacher et al., 2017). Previous studies have produced mixed findings regarding the relationship between motivation and organizational culture. Some studies reported a positive association between organizational culture and employee motivation (Yusof et al., 2016), whereas others found no significant relationship (Hariadi et al., 2022; Riyanto et al., 2021). Furthermore, empirical evidence examining motivation as an antecedent of quality culture remains limited. George and Sabhapathy (2014) found that work motivation positively influenced organizational culture among faculty members in higher education institutions; however, the limited number of studies and inconsistent findings indicate a lack of consensus regarding the role of motivation within organizational culture frameworks. Given the scarcity of empirical evidence linking extrinsic motivation and quality culture, particularly in higher education institutions, further investigation is warranted. Therefore, the following hypothesis is proposed:

Quality Culture and Higher Education Performance

Quality culture refers to a set of shared values that promote continuous improvement in organizational practices and outcomes (Harvey, 2004) and reflects an institutional commitment to quality in which all members contribute to creating an environment that supports excellence and sustainable development (Trewin, 2002). In higher education institutions, quality culture is embedded in organizational processes and serves as a foundation for achieving academic and institutional goals (Ali & Musah, 2012). Previous studies have consistently reported a positive relationship between quality culture and organizational performance (Yusof & Ali, 2000; Ali & Musah, 2012; Wu, 2015). In the higher education context, quality culture has been found to significantly improve service quality in both public and private universities, with stronger effects observed in private institutions (Iqbal et al., 2023), while Katwalo and Asienga (2015) reported a strong association between quality culture and institutional performance in a Kenyan research university. Similarly, Hilman et al. (2017) found that quality culture significantly influences higher education performance, although they recommended the inclusion of additional predictor variables and broader research settings to enhance explanatory power. These findings suggest that quality culture is an important determinant of institutional performance; however, further empirical evidence is needed to validate its role across different higher education contexts. Therefore, the following hypothesis is proposed:

The Mediating Effect of Quality Culture

Although quality culture has been widely discussed in higher education research, its conceptualization remains inconsistent (Nygren-Landgards et al., 2022). Previous studies have primarily examined quality culture using qualitative approaches (Adina-Petruța, 2014; Njiro, 2016; Bendermacher

et al., 2017; Lycke & Tano, 2017; Tutko, 2019), while quantitative studies have generally positioned it as an independent variable influencing organizational performance (Ali & Musah, 2012; Katwalo & Asienga, 2015; Wu, 2015; Ullah et al., 2016; Hilman et al., 2017). Other studies have treated quality culture as a dependent variable and found positive relationships with managerial practices such as Total Quality Management (TQM), Internal Quality Assurance (IQA), and visionary leadership (Al-Otaibi, 2015; Do et al., 2020; Herminingsih et al., 2020), highlighting its strategic role in enhancing organizational effectiveness.

Despite the growing body of literature, studies examining quality culture as a mediating variable remain limited. Existing evidence suggests that quality culture mediates the relationship between talent management and organizational performance (Abubakar & Hilman, 2017), TQM practices and contractor competitiveness (Alotaibi & Islam, 2013), and quality management practices and innovation performance (Alotaibi et al., 2016). However, little empirical evidence exists regarding its mediating role in the relationship between extrinsic motivation and higher education performance. Therefore, this study investigates quality culture as a mediating mechanism through which extrinsic motivation influences higher education institutional performance.

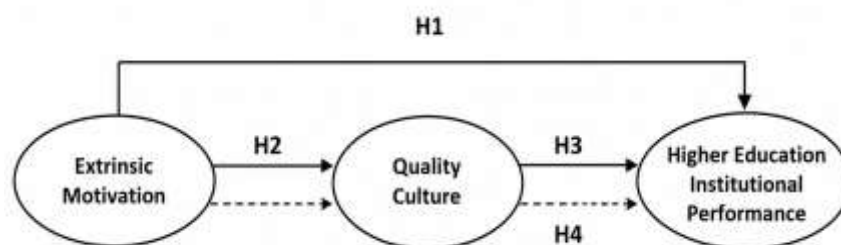


Figure 1. Conceptual Research Framework

METHOD

This study employed a quantitative survey approach to examine the relationships among extrinsic motivation, quality culture, and higher education institutional performance. The research was conducted in Riau Province, Indonesia, involving lecturers from public and private higher education institutions. The study population consisted of 6,839 lecturers registered in the Higher Education Database (PDDIKTI). Using the Slovin formula with a 5% margin of error, the minimum required sample size was 378 respondents. A total of 408 questionnaires were collected, of which 398 valid responses were retained for analysis.

Data were gathered through an online questionnaire using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher education institutional performance was measured using three indicators: teaching performance (Goos et al., 2017; Dicker et al., 2019), research

performance (Yaakub et al., 2020), and service performance (Nedwek et al., 1994; Hui et al., 2003; Badri et al., 2004; Asif et al., 2014). Extrinsic motivation was measured using four indicators, namely organizational policies and management, supervision, interpersonal relationships, and incentives/bonuses (Anggriyani & Rahman, 2001). Quality culture was assessed through four indicators: values, traditions, procedures, and expectations (Wu, 2015).

Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS software. The analysis involved evaluating the measurement model (outer model) through reliability and validity tests, followed by assessment of the structural model (inner model) to examine the hypothesized relationships among variables. Hypotheses were tested using the bootstrapping procedure with a significance level of 5%, where hypotheses were accepted when the p-value was below 0.05.

RESULTS AND DISCUSSION

The study involved 398 valid respondents from higher education institutions in Riau Province. Of the respondents, 64% were affiliated with private universities, while 36% were from public universities. Female respondents accounted for 63% of the sample, whereas male respondents represented 37%. Regarding educational background, 72% held a master's degree and 28% possessed a doctoral degree. Most respondents were between 35 and 50 years old (72%), indicating that the majority were in their productive academic years. Furthermore, 65% had more than ten years of work experience, suggesting that the respondents had substantial professional experience and understanding of higher education management.

Table 1. Demographic Characteristics

Respondent Characteristics	Frequency	Percentage (%)
Type of Higher Education Institution		
Public University	143	36
Private University	255	64
Gender		
Male	147	37
Female	251	63
Educational Qualification		
Doctoral Degree (Ph.D./S3)	111	28
Master's Degree (S2)	287	72
Age		
25-24 years	68	17
35-50 years	287	72
> 50 years	44	11
Work Experience		

3-5 years	44	11
6-10 years	96	24
>10 years	259	65

Source: Created by Authors

As the first phase in conducting Partial Least Squares Structural Equation Modeling (PLS-SEM), the measurement model (Figure 2) was examined to determine internal consistency reliability, convergent validity, and discriminant validity, in line with the guidelines provided by Hair et al. (2022). Items with factor loadings below 0.600 were excluded, unless the construct's Average Variance Extracted (AVE) remained at or above the acceptable threshold of 0.500. Reliability was measured using Cronbach's alpha, and both reliability and validity indicators surpassed the widely recognized benchmark of 0.700. Additionally, all AVE values fulfilled the minimum criterion of 0.500, aligning with established standards (Hair et al., 2014; 2019). The complete results of the factor loading, reliability, and validity assessments are presented in Figure 2 and detailed in Tables 2.

Table 2. Reliability and Convergent Validity Results

Variables	Indicator	Loading Factor	Alpha	rho_A	CR	AVE
HEI Performance	HEP1	0.863	0.888	0.894	0.931	0.818
	HEP2	0.919				
	HEP3	0.929				
Extrinsic Motivation	EM1	0.890	0.913	0.913	0.938	0.792
	EM2	0.878				
	EM3	0.889				
	EM4	0.903				
Quality Culture	QC1	0.868	0.868	0.876	0.910	0.716
	QC2	0.851				
	QC3	0.814				
	QC4	0.851				

Source: SmartPLS Output, Processed by the Authors (2026)

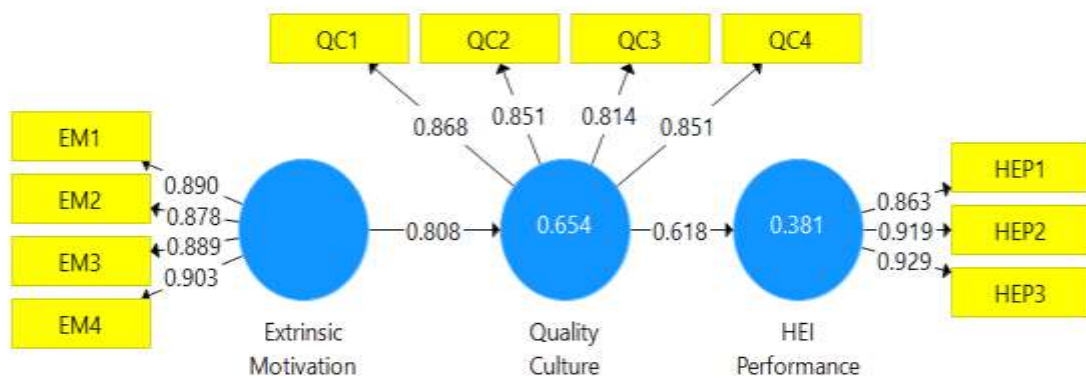


Figure 2. Algorithm Loading Factor Analysis Results

Source: SmartPLS Output, Processed by the Authors (2026)

Table 3. Results of the Coefficient of Determination (R²)

Variabel	R Square	R Square Adjusted
HEI Performance	0.381	0.380
Quality Culture	0.654	0.653

Source: SmartPLS Output, Processed by the Authors (2026)

Based on Table 3, which presents the results of the coefficient of determination test, the R² value indicates that variations in the dependent variable (HEI's Performance) are substantially explained by the independent variables, namely extrinsic motivation and quality culture. A high R² value suggests that the model has strong predictive capability, while a moderate R² value still reflects a meaningful relationship between the variables. Therefore, these findings support the conclusion that extrinsic motivation and quality culture significantly influence HEI's performance, indicating that the model is suitable to proceed to the hypothesis testing stage. The results of the hypothesis testing are presented in Table 4.

Table 4. Results of Hypothesis Testing

Ho	Effect	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
H1	EM → HEP	0.589	0.587	0.040	8.960	0.000
H2	EM → QC	0.808	0.808	0.030	26.928	0.000
H3	QC → HEP	0.618	0.614	0.049	12.633	0.000
H4	EM → QC → HEP	0.499	0.497	0.050	9.970	0.000

HEP = HEI Performance

EM = Extrinsic Motivation

QC = Quality Culture

Source: SmartPLS Output, Processed by the Authors (2026)

The findings provide strong empirical support for the Resource-Based View (RBV), which argues that sustainable organizational performance is derived from valuable and difficult-to-imitate resources and capabilities (Barney, 1991). In the context of higher education institutions, extrinsic motivation can be viewed as a strategic organizational resource, while quality culture represents an organizational capability that enables institutions to transform individual efforts into collective performance outcomes. The significant relationships identified in this study indicate that both motivational resources and quality-oriented organizational values contribute to improving institutional effectiveness.

The results show that extrinsic motivation has a positive and significant effect on higher education institutional performance. This finding suggests that lecturers who receive adequate incentives, recognition, supportive supervision, and fair organizational policies are more likely to perform effectively in teaching, research, and community service activities. The result is consistent with previous

studies that reported positive effects of extrinsic motivation on employee performance (Makki & Abid, 2017; Jeni et al., 2020; Noorazem et al., 2021) and extends these findings to the higher education context. From an RBV perspective, motivational incentives can be regarded as organizational resources that encourage academic staff to utilize their knowledge and competencies more effectively, thereby enhancing institutional performance.

The study also reveals that extrinsic motivation significantly influences quality culture. This finding indicates that organizational policies and reward systems not only affect individual performance but also shape shared values and behaviors within the institution. When lecturers perceive that their contributions are fairly recognized and rewarded, they are more likely to participate in continuous quality improvement activities and support institutional quality initiatives. This result is consistent with George and Sabhapathy (2014), who found a positive relationship between work motivation and organizational culture. The finding further suggests that motivation functions as an antecedent of quality culture, providing empirical evidence for an area that has received limited attention in previous higher education research.

Furthermore, quality culture was found to have a positive and significant effect on higher education institutional performance. This finding confirms that institutions characterized by shared quality values, clear procedures, continuous improvement practices, and high expectations tend to achieve better organizational outcomes. A strong quality culture encourages accountability, innovation, stakeholder orientation, and collaborative behavior among academic staff, which ultimately enhances institutional effectiveness. The result supports previous studies conducted by Ali and Musah (2012), Katwalo and Asienga (2015), Iqbal et al. (2023), and Hilman et al. (2017), all of which emphasized the strategic role of quality culture in improving organizational performance. The finding also reinforces the argument that quality culture is not merely an administrative requirement but a critical organizational capability that contributes to long-term institutional success.

One of the most important findings of this study is the mediating role of quality culture in the relationship between extrinsic motivation and higher education institutional performance. The results indicate that extrinsic motivation improves institutional performance not only directly but also indirectly through the development of quality culture. This finding suggests that motivational resources become more effective when they are embedded within an organizational environment that promotes shared quality values and continuous improvement. In other words, financial incentives and recognition alone may not be sufficient to generate sustainable institutional performance unless they are supported by a strong quality culture. This result contributes to the literature by extending the application of RBV in higher education management and demonstrating that quality culture serves as an organizational capability that transforms motivational resources into superior institutional outcomes.

Theoretically, this study contributes to the higher education management literature by clarifying the mechanism through which extrinsic motivation influences institutional performance. While previous studies have primarily focused on direct relationships among these variables, the present study demonstrates that quality culture acts as an important explanatory pathway linking motivation and performance. This finding helps explain the inconsistent results reported in earlier studies regarding the effectiveness of extrinsic motivation and provides a more comprehensive understanding of organizational performance in higher education institutions.

From a practical perspective, the findings suggest that university leaders should adopt an integrated management approach that combines performance-based incentives with initiatives aimed at strengthening quality culture. Higher education institutions should establish transparent evaluation systems, recognize academic achievements, provide professional development opportunities, and encourage active participation in quality improvement programs. Such efforts can strengthen lecturers' motivation while simultaneously fostering a quality-oriented organizational environment that supports sustainable institutional performance.

CONCLUSION

This study provides empirical evidence that extrinsic motivation and quality culture are important organizational resources that contribute to the improvement of higher education institutional performance. The findings demonstrate that institutional performance is not solely influenced by external incentives and rewards, but also by the ability of higher education institutions to develop and sustain a strong quality culture. Quality culture serves as a strategic organizational capability that transforms individual motivation into collective actions that support the achievement of institutional goals. From a theoretical perspective, the study strengthens the application of the Resource-Based View (RBV) in higher education management by highlighting the role of intangible resources in creating sustainable organizational performance. The results indicate that the integration of motivational practices and quality-oriented organizational values can enhance institutional effectiveness in carrying out teaching, research, and community service activities. Practically, the study suggests that university leaders should adopt a comprehensive management approach that combines performance-based incentives with initiatives aimed at strengthening quality culture. Such integration can support continuous improvement and enhance the long-term competitiveness of higher education institutions. Future research is encouraged to expand the geographical scope, incorporate additional organizational variables, and employ longitudinal designs to provide a deeper understanding of the mechanisms that influence higher education performance.

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