

Managerial Competence and Work Motivation in Kindergarten Governance in West Lombok

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Abstract

School-based management asks kindergarten principals to coordinate institutional responsibilities while sustaining the professional relationships that support early childhood provision. This study examined associations between managerial competence, work motivation, and self-reported school-based management implementation among 36 kindergarten principals in West Lombok, Indonesia. A cross-sectional questionnaire survey was analysed using descriptive statistics and simple and multiple linear regression. The reported mean implementation score was 302.56 (SD = 26.46). In separate simple regression models, managerial competence showed a positive association with implementation ($\beta = .295$; $R^2 = .087$), although its reported test statistic did not support significance at the .05 level ($t = 1.799$; recalculated two-sided $p \approx .081$). Work motivation showed a larger positive association ($\beta = .488$; $R^2 = .238$; $p = .003$). The additive two-predictor model accounted for 26.0% of outcome variance (adjusted $R^2 = .215$); an approximate overall test reconstructed from the reported summary yielded $F(2, 33) = 5.80$, $p \approx .007$. These checks use rounded summaries and require confirmation against the original output. The findings suggest that motivational conditions warrant attention alongside managerial development. They do not establish causation, an interaction between competence and motivation, or effects on children's learning. Principal support should be investigated through approaches that connect professional capability, meaningful work, and the institutional conditions of kindergarten leadership.

1 Introduction

School-based management (SBM) gives educational institutions greater responsibility for decisions about their programmes, resources, and relationships with the communities they serve. Its educational value depends on how these responsibilities are exercised. Fullan and Watson (2000) locate SBM within a broader concern for improving learning, drawing attention to the conditions through which local management can support educational purposes. For kindergarten leaders, this concern involves the everyday organisation of teaching and care as well as the administrative work required to sustain an institution.

The Indonesian experience illustrates why local authority requires institutional support. Heyward et al. (2011) describe SBM implementation through activities such as school planning, community participation, and transparent resource management. Their account provides a national implementation context rather than evidence about the particular kindergartens studied here. At the early childhood level, Ginting et al. (2025) identify several components of SBM across a review of nine studies published between 2019 and 2024. The review reinforces the need to consider management as an institutional practice involving more than the qualities of an individual principal.

Within that institutional setting, managerial competence and work motivation represent related but distinguishable dimensions of leadership. Competence concerns the ability to plan, organise, implement, and supervise institutional work. Motivation concerns the reasons and energy through which a principal engages with that work. Studying both can help clarify whether principals' perceived capacity and

willingness to act are associated with their reported implementation of SBM. It also encourages a more humane understanding of leadership: principals undertake educational responsibilities within working relationships and organisational conditions that may support or constrain their efforts.

This study examines these relationships among 36 kindergarten principals in West Lombok. Its contribution is a situated account of questionnaire-based associations, with particular attention to the limits of the available evidence. The research questions concern the descriptive profile of the three constructs, the association of each predictor with reported SBM implementation, and the fit of an additive model containing both predictors. The survey does not measure children's developmental outcomes or evaluate a programme designed to change principal competence or motivation.

2 Conceptual grounding

2.1 Managerial competence and institutional practice

Managerial competence can be understood as the capacity to coordinate resources and responsibilities in pursuit of an institution's educational purposes. In this study, the construct is organised around planning, organising, implementing, and supervising. These functions provide a practical vocabulary for examining how principals structure institutional work. Fauziana et al. (2025), in a literature-based account of kindergarten management, discuss these functions alongside principals' broader educational and supervisory roles. This conceptual relationship supports the relevance of managerial competence to SBM, but it does not establish that a particular questionnaire score captures the full quality of leadership practice.

In a kindergarten, a management decision may influence how teachers coordinate their work, how families receive information, or how resources become available for learning. These examples explain the educational relevance of governance; they are not outcomes observed in the present survey. A careful account therefore distinguishes a principal's assessment of management practice from independent evidence of institutional effectiveness. This distinction is especially relevant when competence and management implementation are measured through overlapping descriptions of the same leadership responsibilities.

2.2 Motivation and the conditions of leadership

The motivation questionnaire addresses achievement, recognition, responsibility, advancement, and the work itself. These domains concern how principals experience and value their professional responsibilities. They should not be treated as a direct measurement of all forms of intrinsic and extrinsic motivation. Educational research using self-determination theory offers a complementary perspective on the relationship between leadership conditions and work motivation. Eyal and Roth (2011) examine principals' leadership and teachers' motivation, while Collie (2023) investigates teachers' perceptions of leadership practices, motivation, and work-related outcomes.

Hyseni Duraku and Hoxha (2021) also examine school leadership attributes in relation to teachers' motivation. These studies make working relationships relevant to the interpretation of motivation, although their teacher-focused evidence cannot be transferred directly to kindergarten principals. Here, they inform a contextual interpretation rather than a claim that the survey tests self-determination theory. The present measures do not distinguish autonomous from controlled regulation, and no motivational mechanism is directly evaluated.

2.3 Analytical expectations

Three expectations guide the analysis. First, managerial competence is expected to be positively associated with reported SBM implementation in a simple regression model. Second, work motivation is expected to be positively associated with implementation in a separate simple model. Third, an additive model containing both predictors is expected to account for variation in implementation. Entering two predictors in the same model does not test whether one moderates or mediates the association of the other. Neither an interaction term nor a mediation model is available in the reported analyses.

3 Methods

3.1 Design and participants

The study used an observational, cross-sectional questionnaire design. No variable was experimentally manipulated, and the design does not establish temporal ordering or causal effects. The study sampling frame comprised 36 kindergarten principals in West Lombok Regency, West Nusa Tenggara, Indonesia. All 36 were included through census sampling of that frame. This coverage does not, by itself, establish that the frame represented every kindergarten principal in the regency or that the findings generalise beyond the participating institutions.

3.2 Measures and survey procedure

A closed-ended questionnaire used five response options, ranging from 1 (strongly disagree) to 5 (strongly agree). Managerial competence was assessed through 69 items covering planning, organising, implementing, and supervising. The work motivation section addressed achievement, recognition, responsibility, advancement, and the work itself. Its item count is not specified in the available instrument description. The SBM implementation section contained 70 indicators concerning the principal's roles as manager, educator, administrator, supervisor, motivator, and entrepreneur. The reported results use composite scores for these sections.

One trained enumerator distributed questionnaires at the participating kindergartens. Principals provided information about their own competence, motivation, and management implementation. These responses therefore represent self-reported perceptions and practices. The available analytical tables are labelled as processed on 25 September 2022 using SPSS version 22.0; this processing date is not treated as a verified date of questionnaire administration.

3.3 Instrument evaluation

The source manuscript describes item evaluation through factor analysis, with a retention threshold of .40, and reports internal consistency coefficients above .70 for the three scales. However, it does not supply the factor solution, the sample used for validation, exact reliability coefficients, or the complete psychometric output. These statements are retained as descriptions of the reported procedure rather than treated as conclusive evidence of construct validity. The adequacy of the measures, including possible overlap between managerial competence and SBM implementation, remains a limitation of interpretation.

3.4 Analysis and checks of reported statistics

Descriptive statistics summarised the three composite scores. Separate simple linear regressions examined managerial competence and work motivation in relation to SBM implementation, followed by an additive multiple regression containing both predictors. Statistical tests were interpreted at a two-sided significance level of .05. The source describes normality, linearity, and homoscedasticity checks, but the full diagnostic output is unavailable. Consequently, the adequacy of the regression assumptions cannot be independently confirmed from the supplied tables.

For this reconstructed presentation, the reported statistics were checked for internal consistency. The competence slope test was evaluated using its reported *t* statistic and 34 residual degrees of freedom. Approximate 95% confidence intervals for the simple regression slopes were calculated from the reported coefficients and standard errors using the same degrees of freedom. The overall test for the two-predictor model was reconstructed from $R^2 = .260$, $n = 36$, two predictors, and 33 residual degrees of freedom. These calculations use rounded summaries; they are not a reanalysis of participant-level records. The reported beta coefficients belong to the separate simple models and are not interpreted as mutually adjusted effects.

3.5 Participant protection

According to the source manuscript, written administrative permission and research clearance were obtained before fieldwork. Principals gave informed consent, participation was voluntary, and responses were anonymised and kept confidential for academic use. Administrative permission is reported as such and is not equated with approval by an institutional research ethics committee. The available documentation does not identify an ethics committee or provide an approval or exemption reference.

4 Results

4.1 Descriptive profile

Table 1 summarises the reported composite scores. The mean SBM implementation score was 302.56, with an SD of 26.46. The corresponding means were 305.92 for managerial competence and 310.50 for work motivation. These totals should not be ranked across constructs because the instruments have

different or incompletely documented lengths. Nor do the means alone establish that management implementation is poor, moderate, or good without validated interpretation thresholds. They describe the participating principals' responses on the reported scales.

Table 1
Descriptive statistics for the three composite scores

Construct	n	Mean	Median	Mode	SD
Managerial competence	36	305.92	321.00	323	24.95
Work motivation	36	310.50	318.50	345	25.58
SBM implementation	36	302.56	294.00	339 [⊠]	26.46
Note. Values are reported composite-score summaries. SD = standard deviation. [⊠] Multiple modes were reported for SBM implementation; the smallest is shown. Means are not directly comparable across scales.					

4.2 Separate associations with implementation

Managerial competence had a positive slope in the simple regression model ($B = .313$, $SE = .174$; $\beta = .295$). The reported t statistic of 1.799 yields an approximate two-sided p value of .081. The approximate 95% confidence interval for the slope extends from $-.041$ to $.667$. The first analytical expectation is therefore not supported at the .05 level. This result indicates uncertainty about the association in this sample; it does not demonstrate that managerial competence has no educational relevance.

Work motivation showed a larger positive association in its separate simple model ($B = .505$, $SE = .155$; $\beta = .488$; $t = 3.258$, $p = .003$). Its approximate 95% confidence interval ranged from $.190$ to $.820$. A one-point difference in the motivation composite corresponded to an estimated $.505$ -point difference in reported SBM implementation in this model. The estimate describes a cross-sectional association and should not be read as the effect of increasing a principal's motivation through an intervention.

Table 2
Slopes from separate simple regression models

Predictor	B	SE	β	t	p	95% CI for B
Managerial competence	.313	.174	.295	1.799	.081 [⊠]	$-.041$ to $.667$
Work motivation	.505	.155	.488	3.258	.003	.190 to .820
Note. Outcome = self-reported SBM implementation. Each row represents a separate model ($n = 36$; residual $df = 34$). B = unstandardised slope; SE = standard error; β = standardised slope; CI = confidence interval. [⊠] Recalculated from the reported t statistic. Confidence intervals are approximate calculations from rounded coefficients and standard errors, not bootstrap estimates.						

4.3 Fit of the additive model

The competence-only model accounted for 8.7% of implementation-score variance, and the motivation-only model accounted for 23.8%. The model containing both predictors had $R = .510$, $R^2 = .260$, and adjusted $R^2 = .215$ (Table 3). The reconstructed overall test was approximately $F(2, 33) = 5.80$, $p = .007$. This summary is compatible with an overall association between the predictor set and the outcome, subject to confirmation against the original analytical output.

Table 3
Reported fit of the simple and additive models

Predictors	R	R ²	Adjusted R ²	Variance accounted for
Managerial competence	.295	.087	—	8.7%
Work motivation	.488	.238	.215	23.8%
Competence and motivation	.510	.260	.215	26.0%
Note. R and R ² are retained as reported. — indicates that the adjusted R ² was not provided in the competence-only table. The overall F test for the additive model is reconstructed from rounded R ² and is therefore approximate. Explained proportions from separate models are not unique contributions and should not be added together.				

Adding managerial competence to the motivation-only model increased R^2 by approximately 2.2 percentage points. The available multiple-regression summary does not include the individual adjusted coefficients or their tests. It therefore cannot establish the direction or statistical significance of each predictor after adjustment for the other. The model also contains no competence-by-motivation term, so its fit provides no evidence of an interaction. Figure 1 compares the three reported R^2 values without attributing them to causal or unique effects.

5 Discussion

5.1 Interpreting competence with appropriate uncertainty

The positive competence estimate is consistent with the conceptual expectation that principals' capacity to organise institutional work may be related to SBM implementation. Its uncertainty, however, limits the substantive conclusion. The evidence does not establish a statistically significant competence association at the .05 level. Treating an uncertain estimate as evidence of a demonstrated effect would give professional development recommendations more precision than the analysis warrants.

This uncertainty should also be interpreted in relation to measurement. Both competence and SBM implementation include aspects of planning, coordination, supervision, and the principal's organisational role. Their conceptual overlap makes a positive relationship plausible, but it raises questions about whether the scales distinguish professional capability from reported enactment. The literature-based account by Fauziana et al. (2025) helps explain why these roles matter in kindergartens; it does not resolve the measurement issue in this survey. Future studies need to assess the distinction using transparent item definitions and information beyond principals' self-ratings.

5.2 Motivation as a dimension of professional support

The larger bivariate association for motivation directs attention to how principals experience their work. Recognition, responsibility, achievement, and opportunities for development may be meaningful aspects of leadership, but the survey does not identify which component is responsible for the observed relationship. It also does not establish whether motivation precedes successful management, whether perceived management success strengthens motivation, or whether institutional support influences both.

The teacher-focused studies of Eyal and Roth (2011), Collie (2023), and Hyseni Duraku and Hoxha (2021) make leadership relationships relevant to the interpretation of motivation. In the present context, they support a reason to investigate working conditions and professional relationships rather than a direct explanation of the regression coefficient. The survey did not measure autonomy-supportive leadership or teachers' motivational regulation, and it cannot validate those mechanisms for kindergarten principals.

A humane implication is to avoid treating motivation as an individual obligation detached from the circumstances of work. Principal support might include time for collaborative planning, constructive supervision, opportunities to discuss difficult institutional decisions, and recognition of educational responsibilities. These are proposals for subsequent evaluation, not interventions shown to work by this study. Their value should be judged in relation to principals' experiences and the needs of teachers, children, and families.

5.3 Institutional context and the meaning of model fit

The additive model accounted for slightly more variance than motivation alone. This pattern suggests that including competence may add information, but the small increase does not establish complementarity in the statistical sense of an interaction. Nor do the available summaries demonstrate that motivation has a stronger unique effect after mutual adjustment. The substantive comparison is limited to the separate models and the overall fit of the combined predictor set.

The remaining 74.0% of outcome variance is unexplained by this model. It cannot be allocated exclusively to omitted institutional factors because it may also include measurement error and other unexplained variation. Nevertheless, the implementation account of Heyward et al. (2011) and the early childhood review by Ginting et al. (2025) provide reasons to examine community participation, planning processes, and institutional support. These dimensions could be studied alongside principal characteristics rather than inferred from a residual percentage.

For practice, the findings support further inquiry into competence and motivational conditions together, without ranking professional development investments by the reported R^2 values. A decision to fund one form of support over another would require evidence about intervention effects, costs, and implementation conditions. Schools may need differentiated support, and a questionnaire association offers only a starting point for understanding those needs.

6 Limitations and further research

The study includes 36 principals from a defined local frame and uses a single cross-sectional measurement occasion. Generalisation to other institutions is limited, and the census of the study frame does not remove measurement uncertainty or permit causal inference. All three constructs were reported by the same respondents, making shared response tendencies a plausible source of covariance. No independent observation of school management, teacher account, family perspective, or child outcome was included in the reported analysis.

The long instruments and incomplete psychometric reporting further restrict interpretation. The available results do not provide the item count for motivation, the full validation evidence, residual diagnostics, or the coefficients of the additive model. The numerical checks reported here remain provisional until the original records and analytical output are verified. No conclusions about score distributions are drawn from unverifiable histograms, and the statistical models provide no basis for claims about moderation or mediation.

Further research should begin with reproducible scoring and a clear separation between principal capability, motivational experience, and observed management practice. Studies involving more institutions could combine questionnaires with observations, interviews, and documentary evidence. Repeated measurements would help examine temporal ordering, while evaluated professional support programmes would be required to assess whether changes in competence or working conditions improve management. Children's learning and wellbeing should be measured separately when they are the outcomes of interest.

7 Conclusion

Among the 36 participating kindergarten principals, work motivation showed a positive association with self-reported SBM implementation in a separate simple regression model. Managerial competence also had a positive estimate, but the reported test statistic did not support significance at the .05 level. The additive model accounted for 26.0% of implementation-score variance, without demonstrating an interaction, mediation, or independent causal effects. The findings provide a limited local basis for examining principal development alongside the conditions that make educational work meaningful and manageable. Their practical contribution lies in opening that inquiry while retaining appropriate uncertainty about the measures and the reported analysis.

Declarations

Relationship to the earlier publication

The survey sample and principal numerical results presented here match those reported in Habibi, Jaelani, and Amalia (2026), published under the title Managerial Competence and Work Motivation as Predictors of School-Based Management Quality in Indonesian Kindergartens. This manuscript is a

reconstructed presentation of those reported findings, with revised narrative and checks of statistical reporting; it does not describe a newly collected dataset. Its relationship to that publication must accompany any editorial consideration.

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Data availability

The dataset has not been deposited in a public repository because the source manuscript reports confidentiality arrangements with participating institutions. Requests for anonymised data and SPSS output should be directed to the corresponding author and remain subject to confirmation of data custody, institutional permission, and participant confidentiality.

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Figures

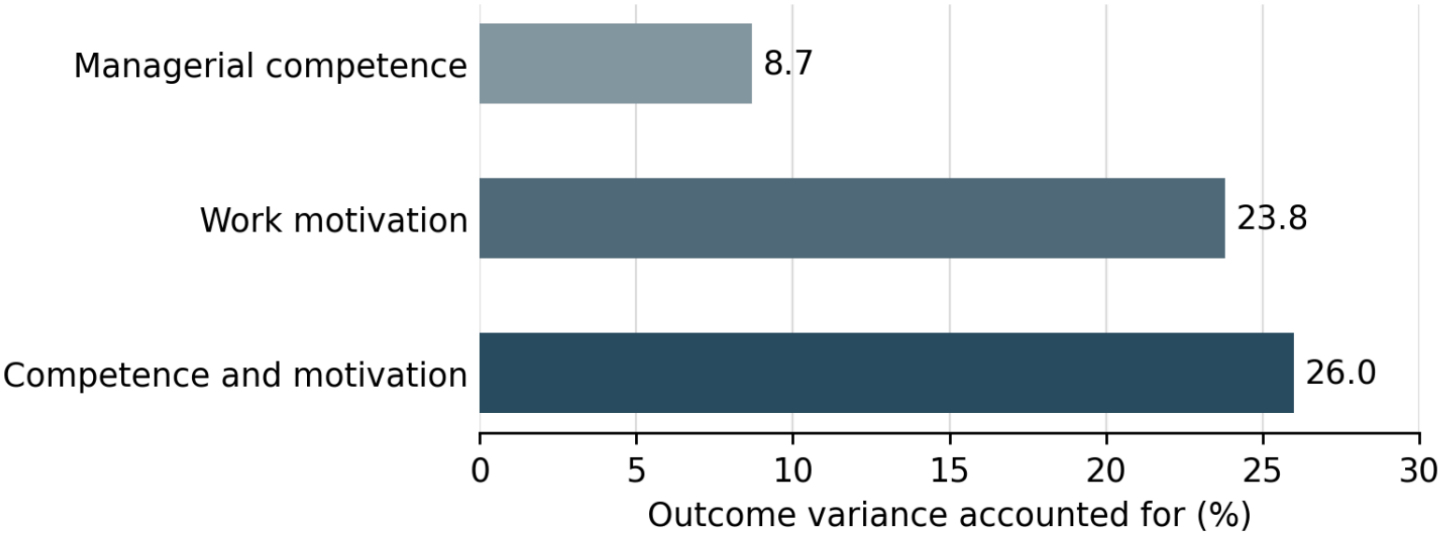


Figure 1

Comparison of reported model fit. The first two bars represent separate simple regressions; the third represents the additive model. R^2 values describe in-sample fit and do not demonstrate an interaction or an improvement in educational outcomes.