

FEEDFORWARD

JOURNAL OF HUMAN RESOURCE

VOL. 6 NO. 2 SEPTEMBER 2026



PUBLISHED BY:
FACULTY OF ECONOMICS AND BUSINESS
UNIVERSITAS PELITA HARAPAN

FEEDFORWARD: JOURNAL OF HUMAN RESOURCE
Vol. 6, No. 2, September 2026

Feedforward: Journal of Human Resource is published by the Faculty of Economics and Business, Universitas Pelita Harapan. The aim of this journal is to provide original research articles related to key concepts and theories in the human resource management field. There are two issues published each year, in April and September. This journal provides a forum for independent research and analysis on human resource management. This journal seeks to reflect a range of views from within the scholarly human resource studies, promote a better understanding of human resource thinking on contemporary national and international themes.

Editor-in-Chief

Dr. Yohana F. Cahya Palupi Meilani, S.P., M.Si.

Managing Editor

Dr. Ir. Dewi Surya Wuisan, M.M.

Board of Editors

Dr. Ian Nurpatria Suryawan, S.E., M.M.

Joy Elly Tulung, S.E., M.Sc., Ph.D.

Dr. Eny Rochmatulaili, S.E., M.Si.

Dr. Drs. Ardi Kho, M. MSi.

Mailing Address

Fakultas Ekonomi dan Bisnis, Universitas Pelita Harapan, Kampus Universitas Pelita Harapan Gedung F Lt. 12, Lippo Karawaci, Tangerang 15811

Phone: 021-5460901

Email: feedforward.journal@uph.edu

Website: <https://ojs.uph.edu/index.php/FF>

FEEDFORWARD: JOURNAL OF HUMAN RESOURCE
Vol. 6, No. 2, September 2026

TABLE OF CONTENT

HUMAN-CENTRIC LEADERSHIP AND EMPLOYEE OUTCOMES: TASK AUTONOMY AND PERCEIVED CAREER ADVANCEMENT AMONG CENTRAL STORES EMPLOYEES AT NNAMDI AZIKIWE UNIVERSITY, AWKA, NIGERIA.....78–92
(Henry Sonna Ojukwu, Oluchukwu Chinyelu Ezeuko, Bankole Isaac Akinroluyo)

LEADERSHIP RELATIONSHIPS: BEYOND LEADER-MEMBER EXCHANGE TO STRATEGIC AND FAIR EMPLOYMENT.....93–112
(Michael Willie)

ARTIFICIAL INTELLIGENCE ADOPTION IN HUMAN RESOURCES MANAGEMENT PROCESSES: A CORPORATE START-UP CONTEXT IN DEVELOPING ECONOMIE.....113–132
(Arachie Augustine Ebuka, Nwafor Angela Ebele, Obiekezie Alphonsus Emenike, Ukadike Ifeanyichukwu Stewarts)

EMPLOYMENT TERMINATION THROUGH DIGITAL MEDIA: A PANCASILA INDUSTRIAL RELATIONS, DISPUTE SETTLEMENT, AND WORKERS' WELFARE PERSPECTIVE.....133–148
(Daniel H. Wibisana, Lady Yohana Kusnadi, Michael, Bernardus Wishman Simbora Siregar)

MOBILE DEVICE USAGE, EMPLOYER EXPECTATIONS, AND WORK-LIFE CONFLICT IN AN INDONESIAN NGO.....149–168
(Yedija C William Margono, Yohana F. Cahya Palupi Meilani)

HUMAN-CENTRIC LEADERSHIP AND EMPLOYEE OUTCOMES: TASK AUTONOMY AND PERCEIVED CAREER ADVANCEMENT AMONG CENTRAL STORES EMPLOYEES AT NNAMDI AZIKIWE UNIVERSITY, AWKA, NIGERIA

Ojukwu Henry Sonna^{1)*}, Oluchukwu Chinyelu Ezeuko²⁾, Bankole Isaac Akinroluyo³⁾

^{1,2,3)} *Faculty of Social Sciences, Nnamdi Azikiwe University, Nigeria*

e-mail: hs.ojukwu@unizik.edu.ng
(Corresponding Author indicated by an asterisk *)

ABSTRACT

This study examined the relationship between growth mindset orientation, employee guidance, task autonomy, and perceived career advancement among employees of the Central Stores at Nnamdi Azikiwe University, Awka, Nigeria. The study adopted quantitative cross-sectional survey design. From a population of 159 employees, the study selected 112 respondents using the Krejcie-Morgan procedure and analysed 109 valid questionnaires. The researchers collected data using a structured 24-item questionnaire. Experts validated the instrument, and a pilot test produced Cronbach's alpha of 0.891, indicating good reliability. Data was analysed using Pearson correlation and simple linear regression in SPSS version 25. The results showed a strong positive relationship between growth mindset orientation and task autonomy ($r = 0.837$, $R^2 = 0.701$, $p < 0.001$). Employee guidance also showed a strong positive relationship with perceived career advancement ($r = 0.948$, $R^2 = 0.899$, $p < 0.001$). The findings suggest that supportive leadership practices can strengthen employee autonomy and perceptions of career growth. The study recommends learning supportive supervision, structured mentoring, greater employee discretion, and transparent career development practices.

Keywords: Human-Centric Leadership; Growth-Mindset Orientation; Employee Guidance; Task Autonomy; Perceived Career Advancement; Higher Education; Nigeria

INTRODUCTION

Human-centred management has become an increasingly visible organisational idea as employers seek to combine performance requirements with employee dignity, participation, learning, and well-being. Townsend and Romme (2024) describe the human-centred organisation as an emerging concept that places people and their needs more explicitly within organisational design and decision-making. In higher education, this emphasis is especially relevant because institutional performance depends not only on formal structures and technologies but also on how leaders enable employees to exercise judgment, learn, collaborate, and develop. Heier et al. (2024), for example, translate human-centred leadership principles into actionable practices for academic leaders, emphasising relational and developmental behaviours that support faculty work experiences.

This study uses human-centric leadership as an umbrella framing for workplace practices that recognise employees as active contributors rather than passive recipients of instructions. The empirical analysis does not treat “employee engagement” as a measured dependent variable. Instead, it focuses on two employee-level outcomes that are directly represented in the questionnaire: task autonomy and perceived career advancement. This distinction is important because autonomy concerns discretion over how work is carried out, while perceived career advancement concerns employees’ assessments of opportunities, developmental support, promotion prospects, and progress. Neither construct should be treated as a direct equivalent of employee engagement.

The study also clarifies the status of growth mindset. In the wider literature, growth mindset is principally an individual belief that abilities can be developed through effort, learning, and adaptive strategies. Recent workplace evidence links employee growth mindset with developmental and innovative behaviour and shows that leadership context can strengthen the value employees derive from such beliefs (Liu & Tong, 2022; Rogers et al., 2023). In the present questionnaire, however, the six “growth mindset” items combine employees’ own developmental beliefs with perceptions of supervisors’ and management’s encouragement of learning, experimentation, and development. The construct is therefore interpreted more cautiously as growth-mindset orientation: an employee-level perception that captures both personal growth beliefs and perceived learning-supportive cues in the immediate work environment. It is not treated as a pure leader personality trait.

Central Stores provides an appropriate operational setting for examining these relationships. The unit supports receipt, custody, record-keeping, and distribution of materials required by academic and administrative functions. Employees work within formal procedures and accountability requirements, yet many tasks still require day-to-day judgment, initiative, coordination, and learning. Human-centric supervisory practices may therefore matter for how much discretion employees perceive and how they view their developmental and career prospects. The public-university context is also relevant because formal hierarchies and standardised procedures can coexist with growing expectations for employee initiative, service quality, and professional development. Recent evidence from Nigerian public universities further indicates that supervisory and career-development mentoring can be associated with service outcomes, demonstrating the practical relevance of mentoring structures in this institutional environment (Edema et al., 2024).

A key empirical gap concerns the limited evidence on human-centric leadership-related practices among non-academic operational staff in African public universities. Existing work on autonomy-supportive leadership has established that managerial and institutional support can be associated with autonomy satisfaction, work design, motivation, and employee outcomes (Mokgata et al., 2023; Sarmah et al., 2022). Higher-education research likewise

shows that inclusive or autonomy-supportive climates can support employee autonomy and self-leadership (Matahela & van Rensburg, 2023; Salifu et al., 2026). Mentoring studies show that career and psychosocial guidance can build self-efficacy, socialisation, and career success, but the amount and quality of career support may also depend on how mentors perceive employees' advancement potential (Deng et al., 2022; Moake et al., 2023; Ragins et al., 2024; Wang et al., 2022). Less is known about how these relationships manifest among operational staff within a Nigerian university stores unit.

Against this background, the study examines two aligned relationships at the individual employee level: growth-mindset orientation with task autonomy, and employee guidance with perceived career advancement. The unit of analysis is therefore the individual Central Stores employee, and the results represent employees' perceptions rather than department-level or university-level characteristics.

Objectives of the Study

The main objective of the study is to examine the associations between selected human-centric leadership-related practices and employee outcomes among Central Stores employees of Nnamdi Azikiwe University, Awka.

1. To examine the relationship between growth-mindset orientation and task autonomy among Central Stores employees of Nnamdi Azikiwe University, Awka.
2. To examine the relationship between employee guidance and perceived career advancement among Central Stores employees of Nnamdi Azikiwe University, Awka.

Research Questions

1. What relationship exists between growth-mindset orientation and task autonomy among Central Stores employees?
2. What relationship exists between employee guidance and perceived career advancement among Central Stores employees?

LITERATURE REVIEW

Human-Centric Leadership

Human-centric leadership is best understood as a people-oriented approach to organising and supervising work in which employee dignity, voice, development, relationships, and well-being are considered alongside operational performance. Because the concept is still developing, it should not be assumed to be a single universally standardised leadership theory. Townsend and Romme (2024) show that human-centred organising draws together streams of research concerned with human needs, participation, organisational culture, and the design of work. This broader framing is useful for the present study because the questionnaire captures concrete practices and perceptions - learning support, guidance, discretion, mentoring, and developmental opportunities - rather than a validated global human-centric leadership scale.

In academic settings, human-centred leadership has practical relevance because leaders must coordinate professional work while preserving employee discretion and developmental capacity. Heier et al. (2024) identify actionable human-centred leadership practices for academic nurse leaders, while Salifu et al. (2026) report that inclusive leadership is positively linked to employee autonomy among higher-education staff. These studies support a relational interpretation of leadership in which employees are more likely to exercise initiative when the work environment provides support, trust, psychological safety, and room for decision-making.

Growth-Mindset Orientation

A growth mindset reflects the belief that capabilities can be developed rather than being permanently fixed. Within organisations, this belief can shape how employees interpret setbacks, feedback, learning opportunities, and developmental challenges. Liu and Tong (2022) found that employee growth mindset was positively associated with innovative behaviour and that strengths-based leadership amplified the usefulness of employees' developmental orientation. Rogers et al. (2023) likewise demonstrate that growth mindset has meaningful interpersonal consequences at work, extending the concept beyond individual achievement to developmental interactions with colleagues.

The present measure goes beyond a conventional individual growth-mindset scale. Some items refer to personal beliefs and motivation, while others ask whether supervisors or management encourage learning from mistakes, support development, and allow experimentation. For conceptual precision, the measure is therefore labelled growth-mindset orientation. This label acknowledges that responses may partly reflect an employee's beliefs and partly reflect a perceived learning climate. The overlap is important when interpreting the unusually strong relationship with task autonomy and is treated as a measurement limitation rather than ignored.

Employee Guidance

Employee guidance refers here to supervisory and senior-colleague behaviours that provide direction, feedback, advice, support during difficult tasks, and mentoring. Contemporary mentoring research emphasises that guidance can contain both career functions and psychosocial functions. Deng et al. (2022) found, using time-lagged multisource data, that career mentoring facilitated newcomer task mastery and related outcomes through occupational self-efficacy, while psychosocial mentoring supported social integration through social self-efficacy. Nuis et al. (2023), in a systematic review of mentoring in higher education, similarly highlights the need for conceptual clarity and careful alignment between mentoring definitions and measures.

Guidance is relevant to career development because mentors can provide information, visibility, developmental opportunities, confidence, and navigation support. Moake et al. (2023) reports a positive mentoring-career success relationship, while Thakar et al. (2024) show that inclusive mentoring can support self-efficacy for career advancement among early-career faculty and postdoctoral fellows. In the Nigerian public-university context, Edema et al. (2024) found that supervisory and career-development mentoring were associated with quality service delivery. However, mentoring is not necessarily allocated neutrally: Wang et al. (2022) and Ragins et al. (2024) show that mentors' judgments about protégés and advancement potential can shape the career support employees receive. This creates a plausible competing explanation in cross-sectional research: employees perceived as more promising may receive more guidance, rather than guidance alone producing better career prospects.

Task Autonomy

Task autonomy refers to the degree of discretion employees perceive over how they organise, sequence, and perform their work. It is not equivalent to the absence of supervision or organisational rules. Rather, autonomy concerns meaningful latitude within role boundaries. Self-determination research emphasises that supportive social environments can strengthen employees' experience of autonomy. Mokgata et al. (2023) found that autonomy support from managers and other sources was associated with autonomy satisfaction and subsequent work outcomes. Sarmah et al. (2022) likewise showed that autonomy-supportive leadership relates

to job resources and employee well-being, while Wörtler et al. (2022) linked empowering leadership to employees' perceptions of effective flexible work arrangements.

Evidence from education is particularly relevant. Collie (2023) found that teachers' perceptions of autonomy-supportive leadership were associated with more self-determined work motivation. Matahela and van Rensburg (2023) identified an autonomy-supportive climate as a meaningful construct for facilitating self-leadership among health-sciences educators. More recently, Salifu et al. (2026) found that inclusive leadership positively influenced employee autonomy among higher-education staff. Together, these studies suggest that supportive leadership and climate may be associated with employees' perceived discretion and initiative, although the present cross-sectional design cannot establish temporal direction.

Perceived Career Advancement

The study measures perceived career advancement rather than objective promotion. Its six items ask about career-growth opportunities, fair consideration for promotion, the usefulness of training for career prospects, personal progress, management encouragement of career development, and perceived rewards for hard work. The construct therefore reflects employees' subjective assessment of advancement prospects and developmental opportunity at the time of the survey.

Recent evidence supports the relevance of leadership and mentoring for career-related perceptions and outcomes. Li et al. (2022) found that responsible leadership was related to career success in the education sector through motivational mechanisms. Moake et al. (2023) linked mentoring with career success, and Thakar et al. (2024) found that inclusive mentoring supported self-efficacy for career advancement in an academic context. Ragins et al. (2024), however, show why caution is needed: mentors provide different levels of career guidance, partly depending on how they assess a protégé's advancement potential. Perceived career advancement may therefore reflect both the quality of organizational guidance and reciprocal selection processes within mentoring relationships.

Theoretical Framework: Self-Determination Theory

Self-Determination Theory (SDT) provides the primary explanatory framework for the revised study because it distinguishes social-contextual conditions that support or frustrate the psychological needs for autonomy, competence, and relatedness. In workplace applications, autonomy-supportive leadership gives employees meaningful choice, acknowledges perspectives, provides rationale, and reduces unnecessary control. These behaviours can shape how employees experience their work design and their capacity to act with initiative. Recent studies applying SDT to work and education demonstrate that autonomy-supportive leadership and climate are associated with autonomy satisfaction, work resources, motivation, and related employee outcomes (Mokgata et al., 2023; Sarmah et al., 2022; Collie, 2023).

SDT is also relevant to employee guidance because developmental feedback, mentoring, and accessible supervisory support can strengthen competence and relatedness. These resources may help employees interpret career opportunities, develop confidence, and navigate organizational systems. The framework therefore supports the proposed association between employee guidance and perceived career advancement without requiring the stronger causal claim that guidance alone determines promotion. It also accommodates the growth-mindset orientation construct: learning-supportive cues may reinforce competence development and create conditions in which employees feel abler to exercise discretion.

Hypothesis Development

Growth-mindset orientation is expected to be positively associated with task autonomy because employees who perceive a learning-supportive environment and believe capabilities can develop may be more willing to take initiative, learn from mistakes, and use discretion. This expectation is consistent with evidence that developmental beliefs interact with strengths-based leadership (Liu & Tong, 2022) and that autonomy-supportive leadership and climates are associated with autonomy-related work outcomes (Mokgata et al., 2023; Sarmah et al., 2022; Salifu et al., 2026). Nevertheless, reverse interpretation remains possible: employees with greater discretion may also report stronger growth opportunities and encouragement. Accordingly, the hypothesis is framed as an association.

Employee guidance is expected to be positively associated with perceived career advancement because feedback, mentoring, advice, and developmental support can improve employees' access to career information and confidence. This expectation aligns with recent mentoring research linking career mentoring to self-efficacy, socialization, and career success (Deng et al., 2022; Moake et al., 2023; Thakar et al., 2024). However, guidance may also be selectively provided to employees viewed as having advancement potential (Wang et al., 2022; Ragins et al., 2024). The study therefore tests association rather than causation.

Hypotheses

- H01: There is no statistically significant relationship between growth-mindset orientation and task autonomy among Central Stores employees of Nnamdi Azikiwe University, Awka.
- H02: There is no statistically significant relationship between employee guidance and perceived career advancement among Central Stores employees of Nnamdi Azikiwe University, Awka.

RESEARCH METHOD

Research Design and Level of Analysis

The study adopted quantitative cross-sectional survey design. Data was collected from employees at one point in time to examine statistical associations between growth-mindset orientation and task autonomy, and between employee guidance and perceived career advancement. Because exposure and outcome variables were measured simultaneously, the design does not establish temporal order or causality. The unit and level of analysis were the individual employees of the Central Stores of Nnamdi Azikiwe University, Awka; the study did not estimate department-level or university-level effects.

Population, Sampling Frame, and Sampling Procedure

The population comprised of all 159 employees listed in the Central Stores personnel frame supplied by the relevant university registry records. The population consisted of Store Officers (24), Store Assistants (40), Clerical Staff (32), Record Officers (16), Account Staff (16), and Support Personnel (31).

Table 1. Population Distribution

Personnel category	Population
Store Officers	24
Store Assistants	40
Clerical Staff	32
Record Officers	16

Personnel category	Population
Account Staff	16
Support Personnel	31
Total	159

Source: University personnel/field records (2025)

Sample size was estimated using the finite-population procedure reported by Krejcie and Morgan (1970). With $N = 159$, a population proportion of 0.50, 5% precision, and the conventional chi-square value for one degree of freedom at the 95% confidence level, the calculation gives approximately 112.66, conventionally rounded to 113. The field records show that 112 questionnaires were actually administered. The operational administered sample was therefore one employee below the computed target. This discrepancy is reported transparently rather than presenting Krejcie-Morgan as a sampling technique.

To preserve representation across personnel categories, the 112 questionnaires administered were proportionately allocated to the six personnel categories using the population shares, after which employees were selected randomly within each category. The resulting procedure is more accurately described as proportionate stratified random sampling rather than simple random sampling of the entire workforce without strata.

Table 2. Population and Proportionate Sample Allocation

Personnel Category	Population	Allocated Sample
Store Officers	24	17
Store Assistants	40	28
Clerical Staff	32	23
Record Officers	16	11
Account Staff	16	11
Support Personnel	31	22
Total	159	112

Source: Researcher's compilation from the sampling frame (2025)

Instrument and Measurement

Data were collected with a researcher-developed questionnaire comprising demographic items and 24 substantive items. The substantive section used a four-point response scale: Strongly Agree, Agree, Disagree, and Strongly Disagree. Six items measured each of four constructs: growth-mindset orientation, employee guidance, task autonomy, and perceived career advancement. The items were not represented as a standardized published scale. The revised terminology reflects the actual content of the items: the growth-mindset block combines individual growth beliefs with perceived supervisory/management learning support, while the career block measures perceived opportunities and prospects rather than verified promotion events.

Validity and Reliability

Content validity was assessed through academic review in the Department of Business Administration, Faculty of Management Sciences, Nnamdi Azikiwe University, Awka. The review focused on the relevance and clarity of the questionnaire items in relation to the study constructs. A pilot test was then conducted with 20 employees from the Central Stores of Chukwuemeka Odumegwu Ojukwu University, who were not part of the main study. All 20 pilot questionnaires were returned, coded, and analysed in SPSS version 25. The 24-item instrument yielded an overall Cronbach alpha of 0.891, indicating strong overall internal consistency.

Table 3. Reliability of Instrument

Cronbach's alpha	Number of substantive items
0.891	24

Source: SPSS version 25 output of pilot survey data (2025)

The available study records do not contain construct-specific Cronbach alpha coefficients, confirmatory factor analysis, or other factor-based evidence of construct validity. Those statistics are therefore not invented in this revision. The absence of subscale reliability and factor-validity evidence is acknowledged as a measurement limitation, particularly because the growth-mindset orientation items contain both individual-belief and contextual-leadership content.

Data Collection and Response

Questionnaires were administered in paper-and-pencil format using direct delivery. Respondents were informed in the questionnaire that their responses would be treated confidentially and used solely for academic purposes. No respondent name was requested. Of the 112 questionnaires administered, 109 were retrieved and analysed, while three were not retrieved. The usable response rate was therefore 97.3%.

Table 4. Questionnaire Administration and Response Rate

Questionnaire status	Frequency	Percentage
Administered	112	100.0
Retrieved and analysed	109	97.3
Not retrieved	3	2.7

Source: Field Survey (2025)

Data Analysis and Model Specification

Data was analysed in SPSS version 25. Frequency and percentages summarize demographic characteristics. Pearson product-moment correlations described the direction and strength of the two hypothesized bivariate relationships. Two separate simple linear regression models were used to summarize the proportion of variance in each outcome associated with its specified predictor. The significance criterion was $p < 0.05$. Because each regression contains only one predictor, within-model multicollinearity is not applicable. The archived manuscript output did not include residual plots or numerical tests of residual normality and homoscedasticity; consequently, this revision does not claim that unreported diagnostics were satisfied.

The two models were specified as follows:

$$\text{Model 1: TA} = \beta_0 + \beta_1\text{GMO} + \varepsilon$$

$$\text{Model 2: PCA} = \beta_0 + \beta_1\text{EG} + \varepsilon$$

Where TA = Task Autonomy; GMO = Growth-Mindset Orientation; PCA = Perceived Career Advancement; EG = Employee Guidance; β_0 = constant; β_1 = regression coefficient; and ε = error term.

For a one-predictor ordinary least-squares model with standardized variables, the standardized regression coefficient equals the Pearson correlation. Accordingly, standardized β is reported alongside R, R^2 , adjusted R^2 , standard error of estimate, F, and p. Approximate 95% confidence intervals for the two Pearson correlations were calculated using Fisher's z transformation. Unstandardized B coefficients and their confidence intervals were not recoverable from the summary tables retained in the manuscript and are therefore not

fabricated. They should be added from the original SPSS Coefficients tables if those outputs are available before final journal submission.

Common-Method and Ethical Considerations

All substantive variables were measured by the same respondent in the same questionnaire at a single time point. This creates a risk of common-method variance and same-source inflation, particularly given the very high observed correlations. Procedurally, the questionnaire emphasized confidentiality and did not request respondent names, which may reduce evaluation apprehension. However, the available records do not contain a statistical common-method-bias test, marker variable, temporal separation, or multisource validation. The findings are therefore interpreted cautiously, and the issue is carried into the limitations. The source manuscript also did not contain a formal ethics-approval identifier; the authors should insert the relevant institutional approval and consent details before submission if such approval was obtained.

RESULTS AND DISCUSSION

Respondent Characteristics

A total of 109 valid responses were analysed. Table 5 presents respondents' gender, age, marital status, and educational qualification. The table is descriptive only; no inferential claim is made that these demographic characteristics caused or strengthened the focal relationships.

Table 5. Demographic Characteristics of Respondents

Characteristic	Category	Frequency	Percentage
Gender	Male	43	39.4
	Female	66	60.6
Age	20-28	3	2.8
	29-39	21	19.3
	40-50	74	67.9
	51 and above	11	10.1
Marital status	Married	89	81.7
	Single	18	16.5
	Other	2	1.8
Education	SSCE/OND	0	0.0
	BSc/HND	66	60.6
	MSc/PhD	9	8.3
	Other	34	31.2

Source: Field Survey (2025). Percentages are recalculated from N = 109 and may differ slightly from whole-number rounding in the original table.

Female employees constituted 60.6% of respondents and male employees 39.4%. Most respondents were aged 40-50 years (67.9%). Married respondents constituted 81.7% of the sample. Regarding educational qualification, 60.6% reported BSc/HND, 8.3% reported MSc/PhD, and 31.2% selected "Other." These distributions describe the composition of the analysed sample but should not be interpreted as evidence about the causes of autonomy or career perceptions.

Bivariate Associations

Table 6. Pearson Correlation Results for the Hypothesised Relationships

Hypothesized relationship	r	95% CI for r	p	N
Growth-mindset orientation - Task autonomy	0.837	0.770 to 0.886	< 0.001	109

Hypothesized relationship	r	95% CI for r	p	N
Employee guidance - Perceived career advancement	0.948	0.925 to 0.964	< 0.001	109

Source: SPSS version 25 summary output (2025); confidence intervals calculated from the reported correlations using Fisher's z transformation.

Growth-mindset orientation had a strong positive association with task autonomy ($r = 0.837$, $p < 0.001$). The approximate 95% confidence interval, 0.770 to 0.886, indicates that the population association is likely to remain strongly positive. Employee guidance had an even stronger positive association with perceived career advancement ($r = 0.948$, $p < 0.001$; approximate 95% CI 0.925 to 0.964). The latter correlation implies very high shared variance and therefore warrants careful consideration of construct overlap, same-source measurement, and reciprocal interpretation.

Simple Regression Results and Hypothesis Tests

Table 7. Summary of Simple Linear Regression Results for the Hypothesised Relationships

Hyp.	Predictor	Outcome	Std. β	R	R ²	Adj. R ²	SEE	F (df)	p
H01	Growth-mindset orientation	Task autonomy	0.837	0.837	0.701	0.698	0.18401	250.89 (1,107)	<0.001
H02	Employee guidance	Perceived career advancement	0.948	0.948	0.899	0.898	0.13910	952.39 (1,107)	<0.001

Source: SPSS version 25 output reported in the study records (2025). Standardized β equals r in each one-predictor model.

For H01, the model relating growth-mindset orientation to task autonomy was statistically significant, $F(1, 107) = 250.89$, $p < 0.001$. The model R^2 of 0.701 indicates that 70.1% of the observed variance in task-autonomy scores was statistically shared with growth-mindset-orientation scores in this sample. The adjusted R^2 was 0.698. The null hypothesis of no relationship was therefore rejected. Because both variables were measured at the same time, this result should be described as a strong association rather than evidence that growth-mindset orientation caused task autonomy.

For H02, the model relating employee guidance to perceived career advancement was statistically significant, $F(1, 107) = 952.39$, $p < 0.001$. The model R^2 of 0.899 indicates that 89.9% of the observed variance in perceived-career-advancement scores was statistically shared with employee-guidance scores. The adjusted R^2 was 0.898. The null hypothesis was therefore rejected. The magnitude is exceptionally high for self-reported organizational constructs and should not be interpreted as proof that guidance determines actual career progression. It may partly reflect overlapping item content, common-method variance, same-source perceptions, or reciprocal processes.

Discussions

Growth-Mindset Orientation and Task Autonomy

The first finding was a strong positive association between growth-mindset orientation and task autonomy. Employees who reported stronger beliefs in development and stronger learning-supportive cues from supervisors and management also reported greater discretion, initiative, and flexibility in carrying out their work. The result is consistent with recent evidence that growth mindset is meaningful in workplace behaviour and that supportive leadership can strengthen the value of developmental beliefs. Liu and Tong (2022) found that employee growth mindset was positively related to innovative behaviour and that strengths-based

leadership strengthened relevant developmental pathways. Rogers et al. (2023) similarly showed that a growth mindset at work can shape developmental interactions with others.

The autonomy component of the findings is also consistent with SDT-based leadership evidence. Mokgata et al. (2023) found that manager autonomy support was an important source of employees' autonomy satisfaction. Sarmah et al. (2022) showed that autonomy-supportive leadership was associated with favourable work design and well-being through job resources. In educational settings, Collie (2023) found that autonomy-supportive leadership practices were linked with teachers' work motivation, while Matahela and van Rensburg (2023) identified an autonomy-supportive climate as relevant to self-leadership among health-sciences educators. Salifu et al. (2026) further reported a positive influence of inclusive leadership on employee autonomy among higher-education staff. These studies do not directly test the same growth-mindset-orientation measure used here, but they provide convergent evidence that supportive, developmental work climates are associated with discretion and self-directed behaviour.

At the same time, the size of the present relationship requires caution. The growth-mindset-orientation measure includes statements about management support, supervisory encouragement, trying new methods, and personal growth beliefs. Task-autonomy items also include supervisory flexibility, independence, and initiative. Some shared wording and common perceptions of a supportive supervisor may therefore contribute to the high R^2 of 0.701. A reverse pathway is also plausible: employees who already experience more discretion may perceive their work environment as more developmental and may feel more able to learn from challenges. The study therefore supports a strong relationship but does not establish which construct precedes the other.

Employee Guidance and Perceived Career Advancement

The second finding was a very strong positive association between employee guidance and perceived career advancement. Employees who reported clearer instructions, useful feedback, accessible advice, senior-colleague support, and mentoring also tended to report more favourable career-growth opportunities, promotion prospects, and management encouragement of development. This pattern is consistent with the contemporary mentoring literature. Deng et al. (2022) found that career mentoring supports newcomer development through occupational self-efficacy. Moake et al. (2023) reported a mentoring-career success relationship, and Thakar et al. (2024) found that inclusive mentoring was associated with self-efficacy for career advancement among early-career faculty and postdoctoral fellows. In the Nigerian public-university context, Edema et al. (2024) also found meaningful associations between supervisory/career-development mentoring and service outcomes.

The result also fits evidence from the education sector showing that leadership can be linked to career success (Li et al., 2022). Structured guidance can help employees understand expectations, obtain feedback, identify development needs, and navigate career systems. These mechanisms make a positive association with perceived advancement plausible. However, mentoring relationships are not one-directional. Wang et al. (2022) demonstrate that supervisors' willingness to provide career mentoring can depend on employee characteristics, while Ragins et al. (2024) found that mentors' beliefs about protégés' advancement potential shape the amount of career guidance they provide. Employees who are already viewed as promising may therefore receive more support and simultaneously perceive better career prospects.

The R^2 of 0.899 deserves particular caution. It indicates unusually high shared variance between two self-reported constructs measured in the same questionnaire. Several employee-guidance items refer to mentoring, management support, and feedback, while perceived-career-

advancement items refer to management encouragement, training, and advancement opportunities. Conceptual proximity between support and career-development perceptions may inflate the observed relationship. The result should therefore be interpreted as evidence of a strong perceived linkage, not as evidence that guidance accounts for 89.9% of objective promotions or actual longitudinal career movement.

Taken together, the findings are consistent with a human-centric view of supervision in which employees' development, voice, competence, and discretion are treated as meaningful organizational concerns. Townsend and Romme (2024) position human-centeredness as an emerging organizational concept that requires attention to human needs and participation, while recent higher-education evidence connects inclusive and supportive leadership with employee autonomy and work-related outcomes (Heier et al., 2024; Salifu et al., 2026). The present study extends this discussion to a non-academic operational unit in a Nigerian public university. The contribution is nevertheless narrower than a claim about employee engagement as a whole. The questionnaire did not include a recognized employee-engagement scale, and the empirical outcomes were task autonomy and perceived career advancement. The revised interpretation therefore avoids treating these variables as engagement dimensions. The study contributes evidence about two specific employee perceptions associated with learning-oriented and guidance-related practices. This conceptual narrowing improves alignment among the title, objectives, measurement, analysis, and conclusion.

CONCLUSION

This study examined two employee-level relationships within the Central Stores of Nnamdi Azikiwe University, Awka. Growth-mindset orientation was strongly and positively associated with task autonomy, while employee guidance was very strongly and positively associated with perceived career advancement. These findings support the relevance of learning-oriented supervision, developmental support, mentoring, and meaningful discretion in a university administrative setting. They do not demonstrate causal effects, and they should not be interpreted as evidence that task autonomy and perceived career advancement are direct measures of employee engagement.

The strongest practical message is that employee development and discretion should be managed together. Supervisors can encourage learning and initiative while maintaining appropriate accountability, and career guidance can be made more transparent, structured, and equitable. Because the study is cross-sectional, same-source, and confined to one unit, further longitudinal and multi-site evidence is required before stronger claims can be made about the direction or generality of the relationships.

PRACTICAL IMPLICATIONS FOR UNIVERSITY HR AND UNIT MANAGEMENT

1. Develop learning-supportive supervision. Supervisors should normalize constructive learning from errors, provide developmental feedback, and create appropriate opportunities for employees to try improved work methods within established controls.
2. Protect meaningful task discretion. Central Stores management should clarify non-negotiable accountability requirements while identifying decisions that employees can make independently, such as sequencing routine tasks, organizing work schedules, and proposing process improvements.
3. Formalize mentoring and guidance. Guidance should move beyond informal goodwill by defining mentoring responsibilities, access to senior colleagues, feedback routines, and

development conversations. Formal arrangements should also guard against favouritism in who receives career support.

4. Increase transparency around career development. Promotion criteria, training opportunities, developmental pathways, and career-related decisions should be communicated clearly so that perceptions of advancement are based on understandable institutional processes.
5. Track objective outcomes alongside perceptions. Future HR evaluation should distinguish perceived career advancement from actual promotions, grade changes, training completion, and other verifiable career events.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The study has several limitations. First, it is a single-site cross-sectional survey of one administrative unit, so the findings should not be generalized automatically to all employees of Nnamdi Azikiwe University, other Nigerian universities, or other public-sector settings. Second, predictor and outcome variables were reported by the same respondents at the same time, creating potential common-method inflation and preventing temporal or causal inference. Third, the very high associations, particularly between employee guidance and perceived career advancement, raise the possibility of construct overlap and shared response tendencies.

Fourth, growth-mindset orientation is a mixed-content measure: some items reflect employees' beliefs, while others reflect perceived supervisor/management learning support. Future studies should separate employee growth mindset from leader growth-mindset behaviour or learning climate using validated multi-item scales. Fifth, the available pilot output provides only an overall alpha of 0.891; construct-specific reliability and factor-validity evidence were not available. Sixth, perceived career advancement is subjective and should not be equated with actual promotion or longitudinal career movement. Seventh, the archived summary output did not include residual diagnostic statistics or unstandardized coefficient tables, limiting the completeness of regression reporting.

Future research should therefore use multi-site and longitudinal designs, collect data from multiple sources, separate leader-level and employee-level constructs, and include objective career indicators. Where employees are nested under supervisors or units, multilevel modelling should be considered. Qualitative interviews or mixed-method designs could also explain how employees interpret autonomy, mentoring, fairness, and advancement opportunities within university administrative systems. Confirmatory factor analysis and explicit common-method-bias procedures would help establish whether the strong observed relationships persist after measurement overlap is addressed.

REFERENCES

- Collie, R. J. (2023). Teachers' work motivation: Examining perceived leadership practices and salient outcomes. *Teaching and Teacher Education*, 135, 1–11. <https://doi.org/10.1016/j.tate.2023.104348>
- Deng, H., Wu, W., Zhang, Y., Yu, Z., Xu, H., & Wu, W. (2022). Exploring the differential effects of career and psychosocial mentoring on newcomer socialization. *Frontiers in Psychology*, 13, 1–14. <https://doi.org/10.3389/fpsyg.2022.975064>
- Edema, A. J. M., Otalor, J. I., Kola, H. M., Ada, J. A., Efiog, E. J., Nkiri, J. E., & Inyang, I. O. (2024). Mentoring and quality service delivery in Nigerian public universities: Does

- organizational culture matter? *Journal of Higher Education Theory and Practice*, 24(1), 212–228. <https://doi.org/10.33423/jhetp.v24i1.6771>
- Heier, C., Leclerc, L., Sanner-Stiehr, E., Busenhardt, C. A., Park, S. H., & Nelson-Brantley, H. (2024). Improving nurse faculty job satisfaction: An action guide for academic nurse leaders. *Journal of Professional Nursing*, 55, 73–80. <https://doi.org/10.1016/j.profnurs.2024.09.005>
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610. <https://doi.org/10.1177/001316447003000308>
- Li, M., Yang, F., & Akhtar, M. W. (2022). Responsible leadership effect on career success: The role of work engagement and self-enhancement motives in the education sector. *Frontiers in Psychology*, 13, 1–9. <https://doi.org/10.3389/fpsyg.2022.888386>
- Liu, Q., & Tong, Y. (2022). Employee growth mindset and innovative behavior: The roles of employee strengths use and strengths-based leadership. *Frontiers in Psychology*, 13, 1–12. <https://doi.org/10.3389/fpsyg.2022.814154>
- Matahela, V. E., & van Rensburg, G. H. (2023). An autonomy-supportive climate for facilitation of self-leadership in health sciences educators. *Health SA Gesondheid*, 28, 1–11. <https://doi.org/10.4102/hsag.v28i0.2308>
- Moake, T. R., Dougherty, T. W., & Dreher, G. F. (2023). Mentoring and career success: An examination of management aspirations and lengthy career interruptions. *Journal of Career Development*, 50(2), 482–498. <https://doi.org/10.1177/08948453221113298>
- Mokgata, N., van der Vaart, L., & de Beer, L. T. (2023). Autonomy-supportive agents: Whose support matters most, and how does it unfold in the workplace? *Current Psychology*, 42, 23931–23946. <https://doi.org/10.1007/s12144-022-03550-9>
- Nuis, W., Segers, M., & Beausaert, S. (2023). Conceptualizing mentoring in higher education: A systematic literature review. *Educational Research Review*, 41, 1–22. <https://doi.org/10.1016/j.edurev.2023.100565>
- Ragins, B. R., Hu, C., Wang, S., & Huang, J.-C. (2024). Give it your all or hardly give? The role of mentors' beliefs about protégé advancement potential and gender in mentoring relationships. *Journal of Vocational Behavior*, 155, 1–29. <https://doi.org/10.1016/j.jvb.2024.104062>
- Rogers, B. A., Christian, J. S., Jennings, R. E., & Lanaj, K. (2023). The growth mindset at work: Will employees help others to develop themselves? *Academy of Management Discoveries*, 9(1), 1–12. <https://doi.org/10.5465/amd.2021.0144>
- Salifu, I., Andoh, R. P. K., Arthur, F., & Ansong, A. (2026). Innovative behaviour of higher education staff: Examination of the influences of inclusive leadership, psychological safety and employee autonomy. *Educational Research and Evaluation*, 31(1–2), 95–119. <https://doi.org/10.1080/13803611.2025.2556055>
- Sarmah, P., van den Broeck, A., Schreurs, B., Proost, K., & Germeys, F. (2022). Autonomy supportive and controlling leadership as antecedents of work design and employee well-being. *BRQ Business Research Quarterly*, 25(1), 44–61. <https://doi.org/10.1177/23409444211054508>

- Thakar, M. S., Rubio, D. M., Murrell, A. J., Morone, N. E., Mitchell Miland, C., & White, G. E. (2024). The impact of inclusive mentoring and identity work on self-efficacy in career advancement and career commitment among underrepresented early-career faculty and post-doctoral fellows. *Journal of Clinical and Translational Science*, 8(1), 1–8. <https://doi.org/10.1017/cts.2024.504>
- Townsend, M., & Romme, A. G. L. (2024). The emerging concept of the human-centered organization: A review and synthesis of the literature. *Humanistic Management Journal*, 9, 53–74. <https://doi.org/10.1007/s41463-024-00168-w>
- Wang, X., Zheng, X., Guan, Y., & Zhao, S. (2022). Do high performers always obtain supervisory career mentoring? The role of perspective-taking. *Journal of Occupational and Organizational Psychology*, 95(2), 332–357. <https://doi.org/10.1111/joop.12386>
- Wörtler, B., van Yperen, N. W., & Barelds, D. P. H. (2022). The link between empowering leadership and employees' perceptions of the effectiveness of blended working. *Scandinavian Journal of Psychology*, 63(3), 208–218. <https://doi.org/10.1111/sjop.12796>

LEADERSHIP RELATIONSHIPS: BEYOND LEADER-MEMBER EXCHANGE TO STRATEGIC AND FAIR EMPLOYMENT

Michael Mncedisi Willie

Policy Research and Monitoring, Council for Medical Schemes (CMS), South Africa

e-mail: m.willie@medicalschemes.co.za
(Corresponding Author indicated by an asterisk *)

ABSTRACT

This conceptual paper argues that differentiation in leader–member exchange (LMX), reflected in unequal access to trust, discretion, and developmental opportunities, is a common mechanism connecting three problems that management scholarship has traditionally examined separately: the evidentiary reliability of dismissal on relational grounds, the validity of the probationary verdict, and the durability of relational assets under the resource-based view of the firm. The argument is developed through an integrative conceptual synthesis conducted in four stages, combining a structured analysis of the differentiation literature against explicit inclusion criteria with a doctrinal analysis of the Code of Good Practice: Dismissal (2025) and the Labour Relations Act 66 of 1995. The analysis shows that the uneven distribution of trust, discretion, and developmental opportunities within a work unit can weaken the evidentiary basis for fair dismissal, influence probationary judgements before valid performance signals emerge, and fragment the relational fabric on which firm-level advantage depends. The paper develops five testable propositions and proposes a managerial approach based on systematic measurement, careful calibration, and procedural safeguards. The issue is particularly significant in South Africa because the Code recognises incompatibility as a form of incapacity and extends probation to considerations of suitability giving managerial judgements about workplace relationships-direct legal consequences. The paper contributes a cross-domain reframing of LMX differentiation, a measurement approach that focuses on disparity rather than undifferentiated dispersion, and a basis for testing the proposed mechanism within the South African regulatory context.

Keywords: Leader-Member Exchange; Leader-Member Exchange Differentiation; Organisational Justice; Dismissal; Probation; Resource-Based View; Employment Regulation; South Africa

INTRODUCTION

Leadership theory has long recognized that supervisors do not distribute trust, discretion and attention evenly among the people who report to them. The vertical dyad linkage tradition established that leaders form relationships of markedly different quality within a single work unit: an inner group characterised by mutual obligation, negotiated latitude and influence, and an outer group confined largely to the terms of the employment contract (Dansereau et al., 1975; Graen & Uhl-Bien, 1995; Liden & Maslyn, 1998). Meta-analytic evidence has established reasonably stable associations between relationship quality and performance, citizenship behaviour, job satisfaction and retention (Gerstner & Day, 1997; Dulebohn et al., 2012). More recent quantitative synthesis asks whether the uneven allocation of relationship quality across a unit is beneficial or corrosive and finds that differentiation consistently depresses emergent states such as cohesion and justice climate while its association with group performance is contingent (Yu et al., 2018; Xu et al., 2024; Andersen & Kuvaas, 2025). Considerably less attention has been paid to a different question what happens when the differentiated relationship itself becomes the object of a formal organisational decision about whether an employee is competent, suitable or dismissible.

That question has acquired particular urgency in South Africa, where on 4 September 2025 the Code of Good Practice: Dismissal came into operation under the Labour Relations Act 66 of 1995 (Meth, 2025; Republic of South Africa, 1995). The Code recognises incompatibility, understood as an inability to work in harmony with colleagues or with the culture of the business, as a form of incapacity capable of justifying dismissal, and it extends the purpose of probation beyond the assessment of work performance to include an employee's suitability for employment (Meth, 2025; Cliffe Dekker Hofmeyr, 2025). Each determination requires an employer to characterise the state of a working relationship rather than to prove the occurrence of a discrete act. The systemic weight of such characterisations is considerable, since unfair dismissal accounted for 51 per cent of all referrals to the Commission for Conciliation, Mediation and Arbitration in the 2024/25 financial year, measured against a caseload that exceeded 188 000 referrals in 2023/24 (Commission for Conciliation, Mediation and Arbitration, 2025). However, the commission reports referrals by broad dispute category rather than by the specific ground on which the employer relied, so the share of dismissals resting on relational grounds, as distinct from demonstrable poor performance or misconduct, cannot be established from published statistics. The incidence of precisely the category of dismissal that the 2025 Code has expanded therefore cannot be measured at the point when measurement would be most informative. Which is why the paper treats the reform as an occasion for evaluation rather than as a settled matter.

The difficulty is that the consequences of differentiation have been examined in three literatures that rarely engage one another. Work on leader-member exchange differentiation has developed largely within organisational behaviour, where the outcomes of interest are justice perceptions, team processes and unit effectiveness (Henderson et al., 2009; Martin et al., 2018; Buengeler et al., 2021; Xu et al., 2024). Work on early relationship formation belongs to the socialisation literature, which asks how quickly a newcomer's standing (Liden et al., 1993; Nahrgang et al., 2009; Liu et al., 2021). Work on the strategic value of workforce relationships belongs to strategic human resource management and the resource-based view, in which relationships appear as one component of a difficult-to-imitate human capital resource (Barney, 1991; Wright et al., 2001; Gerhart & Feng, 2021). The separation is not merely bibliographic, each field defines the dependent variable differently and prescribes a different remedy, so none asks whether the difficulties it observes reflect a single underlying condition.

The fragmentation conceals three related deficits that together define the problem

addressed here. The first is theoretical: no study has asked whether the differentiated leader-member relationship functions as a common causal mechanism across legal, developmental and strategic outcomes, with the consequence that the resource-based treatment of relational assets still lacks the behavioural micro foundation its own critics have demanded (Ployhart, 2021; Gerhart & Feng, 2021). The second is methodological: the differentiation literature continues to operationalise dispersion in ways that conflate conceptually distinct constructs, so that inconsistent findings cannot be adjudicated and justice-based reasoning cannot be attached to the form of dispersion to which it properly applies (Buengeler et al., 2021; Kang et al., 2023). The third is contextual and empirical: the evidence base is drawn overwhelmingly from North American, European and East Asian samples, while African workplace evidence remains scarce, and no work has considered what follows when a legal system formally converts a relational judgement into a ground of dismissal (Worku & Debela, 2024; Kirsten, 2025).

This paper argues that these deficits are manifestations of one difficulty. It draws together three companion analyses, each of which examined the differentiated leader-member relationship from a distinct vantage point and argues that all three converge on a single mechanism, namely the uneven distribution of relationship quality across a work unit. Four objectives follow to establish that legal, developmental and strategic accounts of leadership relationships rest on the same underlying construct rather than on three analogous ones to evaluate critically the conceptual and evidentiary limitations of the differentiation literature on which each account depends; to specify how the 2025 Code alters the risk profile of differentiated leadership in South African workplaces, and how that risk interacts with the employment equity framework and is to derive testable propositions and a managerial discipline capable of responding to all three domains at once.

The contribution is correspondingly fourfold theoretically, the paper reframes differentiation as a cross-domain mechanism rather than a variable confined to team-level organisational behaviour, and in doing so responds to calls for resource-based reasoning to be anchored in identifiable behavioural micro foundations (Ployhart, 2021; Gerhart & Feng, 2021). Methodologically, it shifts the measurement emphasis from the mean quality of exchange within a unit to its dispersion and specifies which form of dispersion is consequential (Buengeler et al., 2021; Martin et al., 2018; Kang et al., 2023). Practically, it collapses three separate managerial agendas into one discipline of measurement, calibration and procedural safeguard. In policy terms, it identifies implications for the implementation of the 2025 Code and for the alignment of dismissal practice with the Employment Equity Act 55 of 1998 as amended (Republic of South Africa, 1998; 2022).

LITERATURE REVIEW

Leader-Member Exchange and Its Contested Foundations

Leader-member exchange theory rests on the claim that the dyad rather than the leader is the appropriate unit of leadership analysis. Leaders are held to develop qualitatively distinct relationships with individual subordinates, ranging from narrow contractual exchanges to relationships marked by trust, mutual obligation and the extension of resources beyond formal role requirements (Dansereau et al., 1975; Graen & Uhl-Bien, 1995; Liden & Maslyn, 1998). Empirically the construct has proved durable, and meta-analytic reviews report consistent associations between exchange quality and task performance, citizenship behaviour, satisfaction and turnover intention, and identify a broad set of leader, follower and interpersonal antecedents (Gerstner & Day, 1997; Dulebohn et al., 2012). The durability extends to contemporary work: exchange quality remains a reliable predictor of discretionary contribution and of its withdrawal, and the reciprocity logic on which it rests continues to organise research

on how frontline managers convert human resource policy into employee experience (Scott & Zweig, 2020; Kilroy et al., 2023).

The theoretical foundations have nevertheless come under sustained scrutiny, and the criticism goes to the construct rather than to the strength of its correlations. Gottfredson et al. (2020) argue that leader-member exchange lacks a stable conceptual definition and that its dominant measures capture the correlates and outcomes of a good relationship rather than the exchange processes the theory postulates. Madison et al. (2025) extend the critique to the wider leadership field, showing that social exchange theory is routinely operationalised through a set of restrictive assumptions in which exchange is treated as transactional, leader-initiated, static, inferred from indirect proxies, enacted by identity-neutral actors and detached from context. If exchange is modelled as though the identities of the parties and the institutional history in which they are embedded were immaterial, the theory is poorly equipped to speak to a labour market such as South Africa's, in which workplace relationships form against a legacy of statutory exclusion that the Employment Equity Act 55 of 1998 and its 2022 amendment continue to address (Republic of South Africa, 1998; 2022). Moreover, cross-national evidence shows that the strength of social exchange effects varies systematically with cultural and institutional settings, which is difficult to reconcile with an identity-neutral and context-free operationalisation (Rockstuhl et al., 2020). These criticisms do not overturn a substantial empirical record, but they caution against treating a measured exchange score as a transparent index of relational reality, and they justify the more modest use made of the construct below, namely as an indicator of how favorably a subordinate is positioned relative to peers.

The Double Edge of Differentiation

Attention has progressively shifted from the individual dyad to the distribution of dyads within a unit. Henderson et al. (2009) showed that differentiation operates simultaneously at several levels of analysis, shaping both individual fairness perceptions and collective processes. The findings, however, have proved persistently inconsistent, and two strands of the literature draw opposite practical conclusions from overlapping evidence. One strand holds that differentiation is functionally efficient, supported by evidence that strategically targeted high-quality relationships with well-connected team members can mitigate the collective costs of unequal treatment (Wang et al., 2024). A second strand holds that differentiation corrodes the perception of procedural fairness on which cooperation depends, since unequal treatment violates the norm of equality even when it satisfies the norm of equity (Martin et al., 2018). Erdogan and Bauer (2010) offered a partial reconciliation, showing that a strong justice climate buffers the adverse consequences of differentiated exchange, while Furtado and Sobral (2023) found that what benefits the favoured individual may nevertheless damage the team, a divergence that pure individual-level designs cannot detect. Yu et al. (2018), synthesising 4 114 workgroups, found differentiation consistently negative for emergent states and group processes while its association with group performance was more complex, the proximal damage to cohesion partially suppressing a positive direct path. Xu et al. (2024) accounts for this pattern through a social hierarchy perspective in which the same dispersion that clarifies status ordering also undermines the solidarity required to act on it. Andersen and Kuvaas (2025) add a further qualification of practical importance: differentiation justified on equity grounds is not perceived as fair irrespective of what is being distributed, since socioemotional resources allocated by merit attract stronger fairness objections than economic ones. Taken together, these studies suggest that the inconsistency in this literature is less a matter of contradictory findings than of insufficiently specified constructs and outcomes.

That the inconsistency might be artefactual rather than substantive is the more fundamental possibility, and Buengeler et al. (2021) argue persuasively for it. Drawing on the group diversity literature, they distinguish three constructs that the field has conflated under a

single label: separation, meaning dispersion as disagreement about the relationship; variety, meaning dispersion as qualitative difference in kind; and disparity, meaning the concentration of valued resources, status and access in a few hands. Only the third necessarily implies inequality of allocation, and it is therefore the form to which justice-based reasoning properly attaches. Kang et al. (2023), treating differentiation explicitly as disparity in a sample of 94 South Korean teams, found that it depressed supervisory justice climate and thereby raised team counterproductive behaviour, with the effect strengthened where the leader was perceived as incompetent. Comparable results in healthcare teams indicate that differentiation and mean exchange quality act on citizenship and counterproductive behaviour through partly distinct paths (Mitchell et al., 2024). This distinction is analytically decisive for the present paper, because the legal and strategic risks examined below arise from disparity rather than from mere heterogeneity, and studies that operationalise differentiation as a within-team standard deviation without regard to the underlying construct cannot adjudicate between them.

The limits of this evidence warrant emphasis, since a synthesis inherits the weaknesses of the work it integrates. First, the dominant designs remain cross-sectional and reliant on single-source, follower-reported data, which leaves the direction of causation between relational standing and performance underdetermined and inflates observed associations through common method variance (Gottfredson et al., 2020; Martin et al., 2018). Post hoc statistical remedies are largely ineffective against this problem, so procedural separation at the design stage is required (Podsakoff et al., 2024). Second, dispersion indices are statistically fragile: they are sensitive to team size, to the choice of index, and to whether the referent is the individual's own standing or a perception of the distribution as a whole, so that apparently contradictory results may reflect measurement decisions rather than substantive disagreement (Buengeler et al., 2021; Xu et al., 2024). Third, the samples underpinning the literature are overwhelmingly drawn from North American, European and East Asian settings. African evidence remains sparse: a systematic review of organisational citizenship research, a closely adjacent literature, found African studies to be markedly under-represented and called for context-specific rather than imported conceptualisation (Worku & Debela, 2024). Work in regional outlets has begun to address the imbalance, although much of it draws on other emerging economies; Ariani and Feriyanto (2024), for instance, report that in Indonesian small and medium the effects of exchange quality run substantially through perceived organisational support. Any synthesis built on this base must therefore be advanced as a set of propositions to be tested.

Differentiation in the South African Relational Context

Three features of the South African setting are consequential, and each sharpens rather than softens the argument advanced here. The first is normative ubuntu, the relational ethic that treats personhood as constituted through others, supplies a widely held moral vocabulary in which leadership is evaluated by its inclusiveness and its recognition of dignity (Chetty & Price, 2024). Where such expectations are prevalent, the visible concentration of a leader's trust and attention in a favoured few is not read merely as an efficient allocation of scarce managerial time; it is legible as a breach of a shared norm. The implication is not that South African employees are more sensitive to but that the same objective dispersion carries a stronger normative signal and should, on the reasoning developed above, produce a larger justice penalty than Western samples would predict. This expectation has not yet been examined.

If normative expectations govern how differentiation is read, labour market conditions govern what employees can do once they have read it. Much of the differentiation literature treats turnover as the characteristic exit from a poor exchange relationship, an assumption that

presupposes a labour market in which leaving is feasible. South Africa's persistently high unemployment makes that assumption untenable for a large proportion of the workforce (Statistics South Africa, 2025). Kirsten (2025), surveying 740 South African employees, found that perceived injustice translated into organisational cynicism and thence into reduced citizenship behaviour, and that the effect was stronger, not weaker, among employees who otherwise perceived high organisational support, a pattern the author interprets as disillusionment among those with the greatest expectations of managerial integrity. Where exit is constrained, the costs of relational disparity are unlikely to appear in turnover statistics and will instead accumulate as withdrawn discretionary effort and contested dismissals. Outcome models calibrated on Western turnover data may therefore systematically understate the organisational cost of differentiation in this setting.

The third feature is historical, and it converts a managerial question into a regulatory one. Relationship quality in South African workplaces forms against a history of statutory racial exclusion whose distributional consequences the employment equity framework is still designed to correct (Silander, 2024; Republic of South Africa, 2022). This matters because the demographic composition of a favoured group is not a neutral fact. Where relational standing tracks demographic lines, the ordinary managerial exercise of discretion acquires a discriminatory character that neither the manager nor the organisation may recognise as such. Evidence from the wider Southern African region indicates that justice perceptions mediate the link between leadership behaviour and discretionary contribution in ways broadly consistent with the international literature, which suggests the underlying mechanisms transport reasonably well even as their magnitudes and their institutional consequences do not (Khaola & Rambe, 2021; Khuzwayo et al., 2023). The appropriate inference is therefore neither that Western findings apply unchanged nor that they are inapplicable, but that measurement equivalence and effect magnitude are open empirical questions in African samples (Madison et al., 2025).

Relational Judgement in South African Dismissal Law

South African dismissal law requires an employer to establish both a fair reason and a fair procedure, a standard given effect through the Labour Relations Act 66 of 1995 and elaborated in codes of good practice issued under it (Republic of South Africa, 1995). The Code of Good Practice: Dismissal, effective from 4 September 2025 and published in Government Gazette No. 53294, consolidates the previously separate instruments governing misconduct, incapacity and operational requirements (Meth, 2025). Three features of the new instrument are relevant here, and each shifts the object of proof from an event to a relationship. Incompatibility, previously developed through case law, is formally recognised as a species of incapacity. The purpose of probation is extended from the evaluation of performance to the evaluation of suitability for employment, which encompasses conduct and organisational fit. Dismissal for a first offence is contemplated where the conduct has destroyed the trust relationship. Commentators note that these provisions largely codify existing jurisprudence and that the Code expressly contemplates less formal procedures for small enterprises and dispenses with prior warning for senior and highly specialised employees capable of judging their own performance (Naicker et al., 2025; Cliffe Dekker Hofmeyr, 2025). Both concessions widen managerial discretion at precisely the points where the evidentiary record is thinnest.

Codification nonetheless changes the practical calculus, because where the ground of dismissal is a discrete act, corroboration is comparatively tractable: the act either occurred or it did not, and evidence can be assembled independently of the decision-maker's disposition. Where the ground is the state of a relationship, the employer's own conduct forms part of the phenomenon under assessment, and the manager who forms the judgement is also a party to

the relationship being judged. The frontline manager is simultaneously the author of the developmental support the employee did or did not receive, the observer of the resulting performance, and the witness whose account the tribunal must weigh (Kilroy et al., 2023). The differentiation literature indicates that this is precisely the condition under which perceptions of injustice arise and under which the distinction between genuine incapacity and low relational standing becomes difficult to sustain evidentially (Henderson et al., 2009; Erdogan & Bauer, 2010; Colquitt et al., 2023). The risk is not that employers will act in bad faith, but that a category which is intrinsically relational will absorb variance that properly belongs to the leader rather than to the employee.

This risk carries a distinctive equity dimension in the South African context. The Employment Equity Amendment Act 4 of 2022 took effect on 1 January 2025, and the accompanying regulations published on 15 April 2025 set five-year numerical targets across eighteen national economic sectors, obliging designated employers to demonstrate progress towards equitable representation at the four upper occupational levels (Republic of South Africa, 2022; Department of Employment and Labour, 2025). Where relational standing is unevenly distributed and tracks demographic lines, an employer may face simultaneous exposure under two frameworks: unfair dismissal where relational judgement substitutes for evidence of incapacity, and unfair discrimination where the pattern of such judgements disadvantages members of designated groups. The regulations expressly prohibit termination or retrenchment as a means of meeting targets, so an employer whose exit decisions fall disproportionately on designated groups cannot characterise the pattern as an artefact of compliance; and the designated-employer threshold now rests on a headcount of fifty, which removes smaller employers from the reporting regime altogether (Department of Employment and Labour, 2025). Consequently, the employers permitted the least formal dismissal procedures under the 2025 Code are also those least subject to equity monitoring (Meth, 2025). Managing the distribution of relationship quality is thus not only a matter of good practice but a component of statutory compliance.

Probation and the Timing of the Verdict

If dismissal law asks whether a relational judgement is reliable, the design of probation asks when such a judgement can validly be made. The evidence on this point is unusually convergent. Liden et al. (1993) found in a longitudinal study that exchange quality stabilises within the first weeks of the relationship and is predicted by expectations and perceived similarity rather than by demonstrated performance. Nahrgang et al. (2009) reported that leader and follower personality and mutual liking drive exchange quality early, with performance assuming greater explanatory weight only as the relationship matures. Liu et al. (2021), tracking 230 newcomers at six measurement points across their first six weeks, found that initial exchange quality predicted initial performance whereas subsequent change in exchange quality did not track change in performance, a pattern consistent with an early categorisation exerting persistent rather than continuously updated influence. Although these studies span three decades and differ in design, sample and analytic strategy, they share the finding that the relational verdict is substantially settled before the performance record can inform it.

Taken together, these findings imply that a probationary period of customary length may not test the categorisation formed at entry so much as ratify it. A verdict delivered after three or six months will draw on a relationship whose quality was substantially fixed within the first weeks, and on performance information that is itself partly a product of the differential support, information and latitude that high-quality exchange confers. The appropriate design parameter is therefore not a conventional duration, but the interval required for a performance signal that is independent of the exchange relationship to become available. The 2025 Code raises the

stakes of getting this wrong. A decision not to confirm an appointment at the end of probation constitutes a dismissal and must satisfy both substantive and procedural fairness, even though the threshold of justification is lower than for a confirmed employee, and the extension of probation to suitability means the employer must now defend a judgement about fit rather than only about output (Meth, 2025; Republic of South Africa, 1995; Cliffe Dekker Hofmeyr, 2025).

Relational Quality as A Strategic Resource

The third vantage point relocates the same relationship from the domain of fairness to that of competitive advantage. Barney (1991) specified that resources confer sustained advantage when they are valuable, rare, imperfectly imitable and non-substitutable, and identified social complexity and causal ambiguity as principal barriers to imitation. Wright et al. (2001) drew the corresponding distinction within strategic human resource management between human resource practices, which competitors can copy, and the human capital pool and the employee relationships that surround it, which they cannot. Nahapiet and Ghoshal (1998) provided the complementary account of social capital, in which relational and cognitive dimensions of connection underpin the creation and transfer of organisational knowledge. Contemporary treatments of human capital resources retain this logic while insisting that the unit of analysis is collective rather than individual, since firm-level advantage arises from aggregated capacities and the relationships that coordinate them (Ployhart, 2021).

This literature has, however, been notably silent on distribution. Contemporary reassessments of the resource-based view observe that the field has too often catalogued resources without specifying the mechanism by which they translate into performance (Gerhart & Feng, 2021; Ployhart, 2021). The distributional property of relational quality is exactly such a mechanism, and it remains underspecified. A firm in which relational quality is concentrated in a small number of dyads holds a resource that is neither collectively held nor robust to the departure of individuals, and that generates the very perceptions of disparity shown elsewhere to depress cooperation and citizenship behaviour (Buengeler et al., 2021; Furtado & Sobral, 2023; Kang et al., 2023).

The Gap Addressed by This Study

The literatures reviewed above rely on the same underlying construct, yet they rarely cite one another and share neither measures nor remedies. Recent conceptual work has clarified what differentiation is (Buengeler et al., 2021), what social exchange reasoning assumes (Madison et al., 2025) and what the resource-based view still owes by way of mechanism (Ployhart, 2021), and recent empirical work has begun to apply the disparity conceptualisation and to specify the conditions under which differentiation helps or harms (Kang et al., 2023; Xu et al., 2024; Andersen & Kuvaas, 2025), but no study has asked whether a single managerial discipline would answer all three problems simultaneously. The present paper addresses that question in a jurisdiction whose newly codified dismissal regime makes the relational judgement legally explicit.

RESEARCH METHOD

This study employed an integrative conceptual synthesis rather than an empirical design. The approach was considered appropriate because the study sought to integrate bodies of scholarship that addressed a common construct but had developed largely independently, and to generate theoretical propositions rather than estimate empirical parameters (Buengeler et al., 2021; Martin et al., 2018). No primary data were collected, and no statistical inferences were made. Because a conceptual synthesis lacks the procedural safeguards of a systematic review,

its credibility rests on transparent selection criteria, clear links between claims and their supporting sources, and the extent to which its conclusions could be challenged; these elements are specified below.

The sources used in the analysis were grouped into three classes. The first comprised three companion analyses prepared by the present author, each examining differentiated leader–member relationships from a distinct perspective: dismissal fairness under the 2025 Code, the timing of probationary suitability judgements, and the strategic value of relational assets from a resource-based view. The second comprised peer-reviewed scholarship on leader–member exchange and its differentiation, organisational justice, newcomer socialisation, and the resource-based view. The third comprised primary South African legal and policy instruments, including the Labour Relations Act 66 of 1995, the Employment Equity Act 55 of 1998, the Employment Equity Amendment Act 4 of 2022, the Code of Good Practice: Dismissal published in 2025, and the Employment Equity Regulations of the same year. These sources were supplemented by published caseload statistics from the Commission for Conciliation, Mediation and Arbitration and professional legal commentary on the Code where this assisted interpretation.

Inclusion and Exclusion Criteria

Admission to the second class was governed by four criteria applied in sequence. First, relevance: the source had to bear directly on one of four constructs, namely exchange quality, its dispersion within a unit, justice perceptions arising from allocation, or the conditions under which workforce relationships constitute a firm-level resource. Studies concerned with leadership styles more broadly, or with exchange quality solely as a control variable, were excluded. Second, evidentiary weight: priority was given to meta-analyses, systematic and critical reviews, and multilevel or longitudinal primary studies. Single-sample cross-sectional studies were admitted only where they supplied a construct, a measurement argument or contextual evidence unavailable elsewhere, and are identified as such in the text. Third, recency with a seminal exception: sources published from 2019 onwards were preferred, and foundational contributions that define the constructs in use were retained irrespective of date. Fourth, contextual reach: studies conducted in African and other emerging-economy settings were actively sought to counterbalance the North American, European and East Asian concentration of the evidence base, and are flagged where their samples bear on the transportability of a claim.

Two exclusions warrant explicit statement. Unpublished and non-peer-reviewed empirical material was excluded, with the consequence that any file-drawer bias in the published differentiation literature is inherited here rather than corrected. Judicial decisions interpreting the 2025 Code were also excluded, for the sufficient reason that at the time of writing no substantial body of arbitration awards or reported judgments applying the new relational grounds had yet accumulated.

The analysis proceeded in four steps, the first two of which tested whether a synthesis was warranted. Each companion analysis was first re-read to isolate its central causal claim and to state that claim in terms independent of the domain in which it arose. The three claims were then compared to determine whether they invoked the same mechanism or merely analogous ones. The test applied was interventionist rather than semantic: two claims were treated as sharing a mechanism only if a single intervention on the distribution of exchange quality would plausibly alter the outcome in every domain, and if the removal of that distributional variation would plausibly dissolve the problem in each. Third, the 2025 Code was read doctrinally against the fair dismissal standard of the Labour Relations Act, with attention to the provisions in which a relational state functions as a legal ground. Fourth, propositions were formulated

wherever the convergence yielded a claim capable of empirical disconfirmation, and the correspondence across domains was tabulated so (Table 1).

Derivation of the Propositions

Convergence does not by itself yield propositions, and the step from one to the other was governed by three rules. The first rule was domain coverage: each domain identified in the synthesis had to yield at least one proposition expressed in the outcome variable proper to that domain, which produced P1 for the legal domain, and P2 for the developmental domain. The second rule was that any boundary condition consistently reported in the underlying evidence had to be carried into the propositional set rather than absorbed into the main effect; the buffering role of justice climate is the clearest such condition in the differentiation literature and accordingly appears as P3 (Erdogan & Bauer, 2010; Kang et al., 2023). The third rule was that the synthesis had to generate at least one cross-level claim and at least one claim about the remedy. These yielded P4, which locates the effect at unit level, and P5, which isolates the evidentiary safeguards from managerial intent.

Each proposition was then paired with an observation that would count against it. P1 fails if dismissals originating in high-disparity units are upheld on review at rates indistinguishable from those originating in low-disparity units; P2 fails if probationary verdicts predict later performance equally well regardless of their timing, P3 fails if justice climate shows no interaction with disparity; P4 fails if mean exchange quality predicts unit performance equally at high and disparity; and P5 fails if the association in P1 is unchanged by calibration and documentation practices. Propositions that could not be paired with such an observation were discarded during drafting.

Four limitations qualify these claims. First the study is conceptual and its propositions are untested. Second, the legal analysis is doctrinal rather than jurisprudential, since the Code is recent and no substantial body of interpretive awards has yet accumulated, so the account of how commissioners and courts will apply the relational grounds is necessarily provisional. Third, three companion analyses share an author, which means the convergence reported here is a coherence claim rather than independent triangulation; mitigate, but do not eliminate, the risk of selecting sources that cohere. Finally, the evidence integrated in the review is drawn predominantly from settings outside Africa, so its transportability to South African workplaces is itself one of the empirical questions the paper raises rather than an assumption on which it rests.

RESULTS AND DISCUSSION

One Mechanism Viewed from Three Positions

The convergence can now be stated directly: in each of the three domains the benefit derives from high-quality exchange, and the harm derives not from exchange itself but from its uneven distribution across the unit, that is, from the concentration of trust, support and opportunity in a favoured group and their withholding from others (Henderson et al., 2009; Dulebohn et al., 2012; Buengeler et al., 2021; Yu et al., 2018). In the legal domain this unevenness threatens the reliability of the judgement on which a lawful dismissal depends; in the developmental domain it biases the probationary verdict; and in the strategic domain it fragments the resource on which advantage rests. That the mechanism is shared is the paper's central inference rather than a reported finding, and it is advanced because the same intervention, namely a reduction in disparity, satisfies the interventionist test in all three domains. Much of the remedy is correspondingly shared, since a common discipline of consistency, calibration and equity addresses all three. Figure 1 summarises this structure,

placing leader–member exchange differentiation at the centre of dismissal fairness, probation fairness, and the strategic value of workplace relationships.

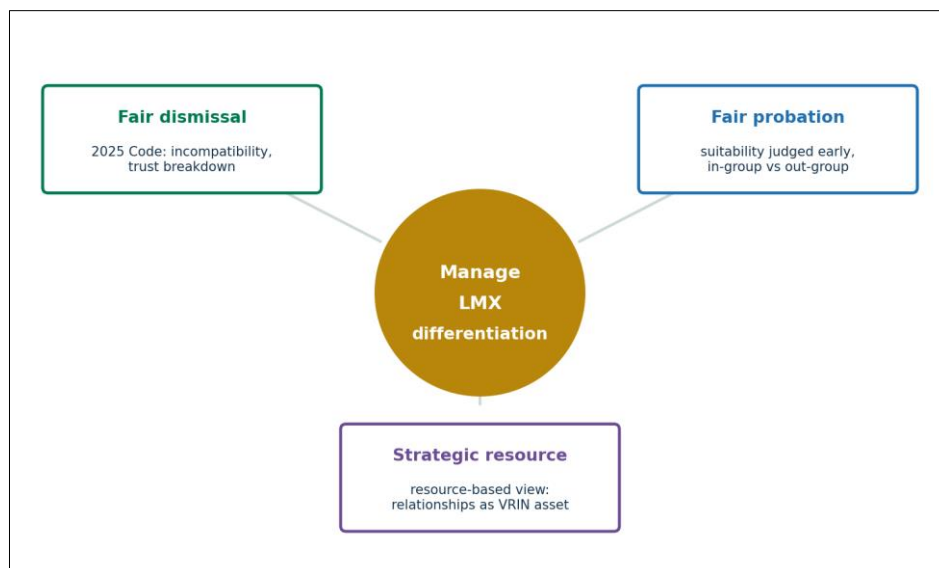


Figure 1. Leader–Member Exchange Differentiation Across Three Management Domains

Legal Fairness and the Risk of Mistaking Relational Standing for Incapacity

Seen from the law of dismissal, the 2025 Code affects a relational turn. Incompatibility is recognised as incapacity, probation is extended to suitability, and the destruction of trust may justify termination for a first offence. Each of these is a judgement about the condition of a working relationship rather than about a discrete and independently verifiable act, and each is ultimately assessed against the fair dismissal standard of the Labour Relations Act (Meth, 2025; Republic of South Africa, 1995; Naicker et al., 2025). Because differentiated exchange is associated with weaker perceptions of procedural and interactional justice, the central danger is that a low-quality relationship will be characterised as genuine incapacity, and that the characterisation will be sincere (Erdogan & Bauer, 2010; Martin et al., 2018; Colquitt et al., 2023). The first companion analysis accordingly proposes a framework of safeguards designed to keep the two apart.

The safeguards operate on the evidentiary rather than the attitudinal level. Where a ground of dismissal is relational, the employer should be able to show that the difficulty was identified against criteria fixed in advance, that the assessment was calibrated across managers rather than resting on a single dyadic judgement, that the employee received specific corrective guidance and a genuine opportunity to respond, and that alternatives short of dismissal were considered and recorded. This is consistent with the Code’s own insistence that attempts at resolution precede a dismissal for incompatibility (Meth, 2025; Naicker et al., 2025). Such safeguards are not procedural formalities; they are how an employer generates evidence that is independent of the relationship, and without which the tribunal has nothing to weigh but the assertion of the party whose conduct is itself part of the matter in issue (Colquitt et al., 2023; Henderson et al., 2009).

Operational Challenges in Implementing the Safeguards

Safeguards of this kind are easier to specify than to operate, and four difficulties deserve acknowledgement. The first is calibration, since cross-manager moderation of relational assessments consumes senior time, requires a common evaluative vocabulary that most organisations do not possess, and is only meaningful where enough comparable cases arise to establish a standard. In a small enterprise with a single supervisory layer, calibration in any

strict sense is unavailable, which is precisely the circumstance the 2025 Code accommodates by permitting less formal procedures (Meth, 2025). The accommodation transfer risk rather than removing it since the employer who cannot calibrate must still satisfy a tribunal on a thinner record.

The second difficulty is that records produced chiefly to withstand later challenge tend towards the formulaic: a file of standardised performance notes may satisfy a procedural audit while conveying no independent information about the employee at all. The safeguards proposed here are valuable only insofar as they generate evidence that could in principle have come out otherwise. The third difficulty is reactivity in measurement, since publishing dispersion statistics, or giving individuals feedback on their relative standing, may itself sharpen the social comparison that generates the injustice perception, so that the diagnostic instrument aggravates the condition it measures (Buengeler et al., 2021; Furtado & Sobral, 2023). Aggregate reporting at unit level, used to prompt managerial reflection rather than to rank employees, is the more defensible design.

The fourth difficulty is specific to the South African setting and, unlike the preceding three, cannot be resolved at the level of the individual employer at all. The organisations least able to bear the administrative cost of calibration are also, since January 2025, those excluded from designated-employer status and hence from employment equity reporting (Department of Employment and Labour, 2025). Relational dismissals in small enterprises are therefore doubly unobserved: neither documented internally to a standard that would support review, nor captured in the reporting that might reveal a demographic pattern across employers. The discipline proposed here is most readily implemented by exactly those large employers whose procedures are already formal, so the employees at greatest evidentiary risk may be those whose employers are least equipped to protect them.

Developmental Fairness and A Verdict Delivered Too Late to Be a Test

Seen from the probationary period, the same differentiation presents as a problem of timing rather than of evidence. Because exchange relationships crystallise within the first days and weeks and do so substantially on affective grounds, a suitability verdict pronounced months later may confirm an early categorisation rather than test it (Liden et al., 1993; Nahrgang et al., 2009; Liu et al., 2021). The second companion analysis argues that probation length should track the time required for a valid, exchange-independent signal to emerge, and proposes a decoupled probation in which the categorisation is deliberately held open while the relationship remains malleable. Practical expressions of this principle include the separation of the developmental review from the confirmation decision, the assignment of assessment to a manager other than the immediate supervisor where role design permits, and the use of work samples or output measures that do not depend on the supervisor's discretionary allocation of opportunity. This design recommendation is the author's inference from the socialisation evidence. The cited studies establish that exchange quality stabilises early and that early quality predicts later performance; they do not test whether restructuring probation around signal validity improves the accuracy of confirmation decisions, which is the claim advanced as P2.

This proposal cuts invites a plausible objection, namely that lengthening probation is unfair to employees who are left in prolonged insecurity. The argument is therefore framed in terms of signal validity rather than duration. A short probation is defensible where output is observable and largely independent of supervisory support, but where performance is interdependent, discretionary or slow to manifest, it converts an early impression into a permanent outcome under the appearance of a test. The objection has force where labour market conditions make the consequences of non-confirmation severe, since an employee who cannot readily find alternative work bears the cost of prolonged insecurity disproportionately

(Statistics South Africa, 2025). This strengthens rather than weakens the case for tying probation to signal validity, because the same conditions make an inaccurate verdict more costly to the employee than a slightly later one. Under the 2025 Code, where the failure to confirm an appointment is itself a dismissal requiring fairness, the design of probation ceases to be a matter of administrative convenience and becomes a determinant of legal exposure (Meth, 2025).

Strategic Value and the Fabric Rather Than the Strongest Thread

Seen from the resource-based view, high-quality exchange ceases to be solely a fairness concern and becomes an asset. It is socially complex, causally ambiguous and path dependent, and therefore satisfies the conditions for sustained advantage, yet it fragments when it is concentrated in a favoured few (Barney, 1991; Wright et al., 2001; Nahapiet & Ghoshal, 1998). The third companion analysis argues that the firm-level resource depends not on the quality of the best single relationship but on the quality and the equity of the relational fabric. Where the literature has treated relationships as a stock to be accumulated, the distributional argument treats their configuration as the variable that determines whether accumulation yields a collective capability at all (Gerhart & Feng, 2021; Ployhart, 2021).

This amendment has practical consequences that separate it from a general appeal to inclusion. If relational quality is concentrated, the resource is vulnerable to the departure of a small number of individuals, since the ties that carry knowledge and trust leave with them; it generates the perceptions of disparity that depress cooperation and voluntary contribution among those excluded; and it is more readily imitable, because a competitor need only recruit the few rather than replicate the many (Nahapiet & Ghoshal, 1998; Buengeler et al., 2021; Furtado & Sobral, 2023). Broad cultivation is therefore not a concession to fairness at the expense of efficiency but the condition under which the relational resource acquires the properties that the resource-based view attributes to it in the first place. Evidence that purposeful differentiation towards structurally central members can mitigate collective costs qualifies the claim without displacing it, since the mitigation operates on the consequences of disparity rather than on disparity itself (Wang et al., 2024). More substantially, the meta-analytic record indicates that differentiation is not uniformly costly at the level of performance even where it reliably damages emergent states, so the argument advanced here should be understood as concerning the durability of the resource rather than its short-run productivity (Yu et al., 2018; Xu et al., 2024).

Table 1 summarises how the same relational mechanism operates across dismissal, probation, and strategic resource management, identifying in each domain the principal threat created by uneven distribution and the corresponding management response.

Table 1. How Leader–Member Exchange Differentiation Operates Across Three Management Domains

Domain	How the relationship enters	What differentiation threatens	What must be managed
Fair dismissal under the 2025 Code	Incompatibility, suitability and the trust relationship are all relational judgements	Justice, where low relational standing is mistaken for genuine incapacity	Independent evidence, cross-manager calibration and procedural safeguards
Fair probation	Categorisation forms early, before a valid performance signal is available	Validity, where the verdict ratifies an early impression rather than testing it	Probation length set by signal validity; a mid-probation reset of the categorisation
Strategic resource under the resource-based view	Relationships constitute a socially complex, difficult-to-imitate asset	Durability, where the relational fabric fragments into a few concentrated ties	Broad cultivation, equity of distribution, and organisation to capture

Domain	How the relationship enters	What differentiation threatens	What must be managed
			value

Propositions Arising from The Synthesis

Because the argument is conceptual, its value depends on whether it can be disconfirmed. Table 2 states five propositions that follow from the synthesis and that are addressable with existing instruments. They are ordered so that the first two test the domain-specific claims, the third tests the boundary condition identified in the justice literature, the fourth test the cross-level claim on which the strategic argument depends, and the fifth tests the remedy. Each employs the disparity conceptualisation of differentiation rather than an undifferentiated dispersion index, in line with the measurement argument advanced above (Buengeler et al., 2021; Martin et al., 2018; Kang et al., 2023). The propositions are not empirical findings; they provide a basis for future investigation.

Table 2. Five Testable Propositions Linking Leader–Member Exchange Differentiation to Management Outcomes

No.	Proposition
P1	Leader-member exchange disparity within a work unit is positively associated with the probability that a dismissal for incapacity or incompatibility originating in that unit will be found substantively or procedurally unfair on review.
P2	The predictive validity of a probationary suitability verdict for subsequent job performance declines as the interval between appointment and verdict falls below the time required for a performance signal independent of the exchange relationship to emerge.
P3	Justice climate moderates both associations, such that the effects specified in P1 and P2 are attenuated in units where perceptions of procedural fairness are strong and shared.
P4	At unit level, the association between mean exchange quality and unit performance is attenuated by exchange disparity, so that relational quality yields durable advantage only where it is broadly distributed.
P5	Formal calibration and documentation practices weaken the association specified in P1, indicating that the evidentiary safeguards, rather than managerial intent, carry the protective effect.

Implications for Practice

For practice, the synthesis collapses three agendas into one, since an organisation that measures both the quality and the distribution of leader-member exchange, that trains managers on the justice consequences of differentiation, and that guarantees correction, procedure and developmental support irrespective of relational standing is simultaneously reducing its legal exposure, improving the fairness of its probationary decisions and cultivating a strategic resource (Henderson et al., 2009; Martin et al., 2018; Meth, 2025). The instruments required already exist, in validated measures of exchange quality and in the calibration and documentation practices of competent human resource management (Gerstner & Day, 1997; Buengeler et al., 2021; Colquitt et al., 2023). What the synthesis adds is the recognition that these instruments serve three ends at once, which alters the business case for investing in them: an intervention that is difficult to justify against any single return may be straightforward to justify against three.

Given the operational difficulties set out above, and the costs of calibration and the costs of calibration that fall disproportionately on smaller employers (Meth, 2025), the argument advanced here is not that every employer should adopt an identical apparatus, but that the evidentiary burden created by relational grounds of dismissal should be met by means proportionate to the size and capacity of the organisation, with the minimum being

contemporaneous documentation of the difficulty identified, the guidance given and the employee's response.

Implications for Policy in South Africa

Because the difficulty is partly regulatory in origin, three policy implications follow. First, guidance issued to support implementation of the 2025 Code could usefully address the evidentiary standard expected where the ground of dismissal is relational, since the Code identifies incompatibility and suitability as grounds without specifying how an employer is to distinguish them from the ordinary consequences of a poor working relationship (Meth, 2025). Second, the conciliation and arbitration system is likely to encounter a growing volume of relational dismissals, and commissioner training that treats differentiated exchange as a recognised source of evidentiary contamination would strengthen the consistency of awards, particularly given that dismissal disputes already dominate the referral caseload (Commission for Conciliation, Mediation and Arbitration, 2025). The Commission could also record the specific ground relied upon, rather than only the broad dispute category, which would make the incidence of relational dismissal measurable for the first time and would allow the effect of the Code to be evaluated rather than merely asserted. Third, the interaction between dismissal practice and the employment equity framework deserves explicit attention, because sectoral numerical targets create obligations regarding representation while relational grounds of dismissal create discretion regarding exit, and the two interact at the level of the individual manager's judgement (Republic of South Africa, 2022; Department of Employment and Labour, 2025).

A Unified Research Agenda

For research, the programme is to test the mechanism directly and across levels of analysis: whether disparity in exchange quality predicts findings of unfair dismissal, whether it biases probationary outcomes, and whether firms with more equitably distributed relationships enjoy durable performance advantages (Henderson et al., 2009; Liden et al., 1993; Buengeler et al., 2021). South Africa offers an informative setting for such work. The commencement of the Code in September 2025 provides a datable change in the legal salience of relational judgement, and the centralised dispute resolution system generates administrative records of dismissal outcomes at a scale rarely available elsewhere, which together permit designs that compare outcomes before and after the change (Meth, 2025; Commission for Conciliation, Mediation and Arbitration, 2025).

P1 is best approached through a matched multilevel design in which exchange disparity is measured at unit level in a sample of employers and linked, with appropriate consent and anonymisation, to the outcomes of dismissal disputes originating in those units. A multilevel logistic specification is indicated, with unit size, sector trade union recognition as controls. An interrupted-time-series comparison of dispute outcomes before and after 4 September 2025 offers a complementary and less demanding first step, though it identifies the effect of the Code rather than of disparity.

P2 requires a prospective cohort of newcomers, with exchange quality measured within the first fortnight, at mid-probation and at confirmation, and with supervisor-rated and supervisor-independent performance measured at confirmation and at six and twelve months. Latent growth modelling of the kind employed by Liu et al. (2021) would establish whether initial exchange quality predicts the confirmation verdict net of performance. P3 is testable within either design by adding a unit-level justice climate measure with its attendant agreement statistics.

P4 by contrast must be tested on units and calls for a two-level design in which means

exchange quality and disparity are entered simultaneously with their interaction, using an objective unit performance criterion measured after the relational variables to establish temporal precedence. Given the demonstrated fragility of dispersion indices, results should be reported under more than one index and for more than one referent so that robustness is visible rather than assumed (Buengeler et al., 2021; Xu et al., 2024). P5 is amenable to a quasi-experimental evaluation in organisations introducing calibration or structured documentation, comparing dismissal review outcomes in adopting and non-adopting units with a difference-in-differences estimator.

Three methodological priorities follow from the critical review above. Studies should adopt the disparity conceptualisation explicitly and report which index was used, since the field's inconsistencies are partly a consequence of construct conflation (Buengeler et al., 2021; Kang et al., 2023). Designs should be longitudinal and multi-source wherever feasible, given the vulnerability of the existing base to common method variance and reverse causation (Gottfredson et al., 2020; Liu et al., 2021; Podsakoff et al., 2024). Measures should be examined for equivalence in African samples rather than assumed to transport, a caution that since prevailing operationalisations treat actors as identity (Madison et al., 2025; Rockstuhl et al., 2020; Worku & Debela, 2024). Treating the three domains as a single programme allows one construct and one family of measures to span labour law, human resource development and strategy.

CONCLUSION

This paper has argued that the differentiation of leader-member exchange, understood as disparity rather than as mere variation, functions as a single mechanism across three domains that management scholarship has kept apart. The uneven distribution of relationship quality within a work unit weakens the evidentiary basis of a lawful dismissal, biases the probationary verdict, and fragments the relational fabric on which firm-level advantage depends; and because the mechanism is common, a single discipline of measurement, calibration and procedural safeguard answers all three.

The paper's principal contribution is theoretical and rests on three departures from the received account. It extends leader-member exchange theory beyond its established territory by arguing that the equitable distribution of high-quality relationships matters as much as their average level; it supplies the resource-based view with the behavioural micro foundation its own critics have identified as missing, locating that micro foundation in the configuration rather than the stock of relational assets; and it argues that a construct developed to explain individual attitudes can carry explanatory weight in a legal domain, where the object of inquiry is the reliability of an employer's evidence rather than the disposition of an employee. The methodological contribution is to insist that differentiation be operationalised as disparity where justice and strategy are at issue, rather than as undifferentiated dispersion. For human resource policymakers the implications are to measure the distribution of exchange to align probation with signal validity, to support relational dismissals with independent evidence, and to monitor whether relational standing tracks demographic lines.

These claims are advanced as propositions rather than findings, and the paper's principal limitation is that they remain untested. That limitation is also the paper's invitation, since the commencement of a new dismissal regime, in a jurisdiction with an unusually well-documented dispute resolution system and an explicit statutory commitment to workplace equity, provides an occasion to establish empirically what has here been argued analytically.

ACKNOWLEDGEMENTS

This paper is an overview article drawing together three companion analyses prepared by the author. The views expressed are those of the author and do not necessarily represent the position of the affiliated entity. The author declares no conflict of interest and received no specific funding for this work.

REFERENCES

- Andersen, I., & Kuvaas, B. (2025). When LMX-differentiation based on equity is less fair: The role of need and type of resource. *Journal of Leadership & Organizational Studies*, 32(3), 249–269. <https://doi.org/10.1177/15480518251327608>
- Ariani, D. W., & Feriyanto, N. (2024). How leader-member exchange affects work outcomes in small-and-medium enterprises? *SA Journal of Human Resource Management*, 22, 1–12. <https://doi.org/10.4102/sajhrm.v22i0.2397>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Buengeler, C., Piccolo, R. F., & Locklear, L. R. (2021). LMX differentiation and group outcomes: A framework and review drawing on group diversity insights. *Journal of Management*, 47(1), 260–287. <https://doi.org/10.1177/0149206320930813>
- Chetty, K., & Price, G. (2024). Ubuntu leadership as a predictor of employee engagement: A South African study. *SA Journal of Human Resource Management*, 22, 1–11. <https://doi.org/10.4102/sajhrm.v22i0.2462>
- Cliffe Dekker Hofmeyr. (2025). *Guideline: The 2025 code of good practice on dismissal*. <https://www.cliffedekkerhofmeyr.com/practice-areas/guides/downloads/The-2025-Code-of-Good-Practice-on-Dismissal.pdf>
- Colquitt, J. A., Hill, E. T., & De Cremer, D. (2023). Forever focused on fairness: 75 years of organizational justice in Personnel Psychology. *Personnel Psychology*, 76(2), 413–435. <https://doi.org/10.1111/peps.12556>
- Commission for Conciliation, Mediation and Arbitration. (2025). *Case referral statistics, 2024/25 financial year*. <https://www.ccma.org.za/>
- Dansereau, F., Graen, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations. *Organizational Behavior and Human Performance*, 13(1), 46–78. [https://doi.org/10.1016/0030-5073\(75\)90005-7](https://doi.org/10.1016/0030-5073(75)90005-7)
- Department of Employment and Labour. (2025, April 15). *Employment equity regulations, 2025 and determination of sectoral numerical targets*. Republic of South Africa. <https://www.labour.gov.za/publication-of-the-two-sets-of-employment-equity-regulations-following-the-commencement-of-the-ee-amendment-act-no-4-of-2>
- Dulebohn, J. H., Bommer, W. H., Liden, R. C., Brouer, R. L., & Ferris, G. R. (2012). A meta-analysis of antecedents and consequences of leader-member exchange: Integrating the past with an eye toward the future. *Journal of Management*, 38(6), 1715–1759. <https://doi.org/10.1177/0149206311415280>
- Erdogan, B., & Bauer, T. N. (2010). Differentiated leader-member exchanges: The buffering role of justice climate. *Journal of Applied Psychology*, 95(6), 1104–1120.

<https://doi.org/10.1037/a0020578>

- Furtado, L., & Sobral, F. (2023). What works for me does not work for us: Exploring the relationships between LMX differentiation and individual and team performance. *Journal of Business and Psychology*, 38(6), 1307–1324. <https://doi.org/10.1007/s10869-023-09889-5>
- Gerhart, B., & Feng, J. (2021). The resource-based view of the firm, human resources, and human capital: Progress and prospects. *Journal of Management*, 47(7), 1796–1819. <https://doi.org/10.1177/0149206320978799>
- Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader-member exchange theory: Correlates and construct issues. *Journal of Applied Psychology*, 82(6), 827–844. <https://doi.org/10.1037/0021-9010.82.6.827>
- Gottfredson, R. K., Wright, S. L., & Heaphy, E. D. (2020). A critique of the leader-member exchange construct: Back to square one. *The Leadership Quarterly*, 31(6), 1–12. <https://doi.org/10.1016/j.leaqua.2020.101385>
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years. *The Leadership Quarterly*, 6(2), 219–247. [https://doi.org/10.1016/1048-9843\(95\)90036-5](https://doi.org/10.1016/1048-9843(95)90036-5)
- Henderson, D. J., Liden, R. C., Glibkowski, B. C., & Chaudhry, A. (2009). LMX differentiation: A multilevel review and examination of its antecedents and outcomes. *The Leadership Quarterly*, 20(4), 517–534. <https://doi.org/10.1016/j.leaqua.2009.04.003>
- Kang, S. M., Pahng, P. H., & Kang, Y. J. (2023). When team members retaliate: The effect of LMX differentiation on team CWB. *Acta Psychologica*, 241, 1–12. <https://doi.org/10.1016/j.actpsy.2023.104090>
- Khaola, P., & Rambe, P. (2021). The effects of transformational leadership on organisational citizenship behaviour: The role of organisational justice and affective commitment. *Management Research Review*, 44(3), 381–398. <https://doi.org/10.1108/MRR-07-2019-0323>
- Khuzwayo, A. B., Flotman, A.-P., & Mitonga-Monga, J. (2023). Transformational leadership influences on organisational justice and employee commitment in a customer service organisation. *SA Journal of Industrial Psychology*, 49, 1–13. <https://doi.org/10.4102/sajip.v49i0.1979>
- Kilroy, J., Dundon, T., & Townsend, K. (2023). Embedding reciprocity in human resource management: A social exchange theory of the role of frontline managers. *Human Resource Management Journal*, 33(2), 511–531. <https://doi.org/10.1111/1748-8583.12468>
- Kirsten, M. (2025). Organisational justice, support and cynicism: A moderated mediation model of organisational citizenship behaviour in South African workplaces. *SA Journal of Human Resource Management*, 23, 1–13. <https://doi.org/10.4102/sajhrm.v23i0.3213>
- Liden, R. C., & Maslyn, J. M. (1998). Multidimensionality of leader-member exchange: An empirical assessment through scale development. *Journal of Management*, 24(1), 43–72. <https://doi.org/10.1177/014920639802400105>
- Liden, R. C., Wayne, S. J., & Stilwell, D. (1993). A longitudinal study on the early development of leader-member exchanges. *Journal of Applied Psychology*, 78(4), 662–674.

<https://doi.org/10.1037/0021-9010.78.4.662>

- Liu, J., Lee, A., Li, X., & Li, C.-R. (2021). The role of change in the relationships between leader-member exchange/coworker exchange and newcomer performance: A latent growth modeling approach. *Frontiers in Psychology*, 12, 1–13. <https://doi.org/10.3389/fpsyg.2021.600712>
- Madison, K., Eva, N., De Cieri, H., & Goh, Z. (2025). Social exchange theory in leadership research: A problematizing review. *The Leadership Quarterly*, 36(6), 1–14. <https://doi.org/10.1016/j.leaqua.2025.101924>
- Martin, R., Thomas, G., Legood, A., & Dello Russo, S. (2018). Leader-member exchange (LMX) differentiation and work outcomes: Conceptual clarification and critical review. *Journal of Organizational Behavior*, 39(2), 151–168. <https://doi.org/10.1002/job.2202>
- Meth, N. (2025, September 4). *Code of good practice: Dismissal*. Republic of South Africa. https://www.gov.za/sites/default/files/gcis_document/202509/53294gen3470.pdf
- Mitchell, R., Gu, J., & Boyle, B. (2024). The impact of leader member exchange quality and differentiation on counterproductive and citizenship behavior in health care teams. *Health Care Management Review*, 49(2), 86–93. <https://doi.org/10.1097/HMR.0000000000000394>
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242–266. <https://doi.org/10.5465/amr.1998.533225>
- Nahrgang, J. D., Morgeson, F. P., & Ilies, R. (2009). The development of leader-member exchanges: Exploring how personality and performance influence leader and member relationships over time. *Organizational Behavior and Human Decision Processes*, 108(2), 256–266. <https://doi.org/10.1016/j.obhdp.2008.11.002>
- Naicker, K., Magubane, A. M., & Loubser, C. (2025, September 5). *South Africa: New code of good practice on dismissal finalised and published*. Bowmans. <https://bowmanslaw.com/insights/south-africa-new-code-of-good-practice-on-dismissal-finalised-and-published/>
- Ployhart, R. E. (2021). Resources for what? Understanding performance in the resource-based view and strategic human capital resource literatures. *Journal of Management*, 47(7), 1771–1786. <https://doi.org/10.1177/01492063211003137>
- Podsakoff, P. M., Podsakoff, N. P., Williams, L. J., Huang, C., & Yang, J. (2024). Common method bias: It is bad, it is complex, it is widespread, and it is not easy to fix. *Annual Review of Organizational Psychology and Organizational Behavior*, 11, 17–61. <https://doi.org/10.1146/annurev-orgpsych-110721-040030>
- Republic of South Africa. (1995). *Labour relations act 66 of 1995*. Government Printer. <https://www.gov.za/documents/labour-relations-act>
- Republic of South Africa. (1998). *Employment equity act 55 of 1998*. Government Printer. <https://www.gov.za/documents/employment-equity-act>
- Republic of South Africa. (2022). *Employment equity amendment act 4 of 2022*. Government Printer. <https://www.gov.za/documents/employment-equity-amendment-act-4-2022>
- Rockstuhl, T., Eisenberger, R., Shore, L. M., Kurtessis, J. N., Ford, M. T., Buffardi, L. C., & Mesdaghinia, S. (2020). Perceived organizational support (POS) across 54 nations: A

- cross-cultural meta-analysis of POS effects. *Journal of International Business Studies*, 51(6), 933–962. <https://doi.org/10.1057/s41267-020-00311-3>
- Scott, K. A., & Zweig, D. (2020). The cynical subordinate: Exploring organizational cynicism, LMX, and loyalty. *Personnel Review*, 49(8), 1731–1748. <https://doi.org/10.1108/PR-04-2019-0165>
- Silander, D. (2024). Democracy at the crossroads: South Africa 30 years after apartheid. *African Journal of Democracy and Election Research*, 4(1), 5–24. <https://doi.org/10.31920/2752-602X/2024/v4n1a1>
- Statistics South Africa. (2025, May 13). *Quarterly labour force survey, quarter 1: 2025*. <https://www.statssa.gov.za/publications/P0211/P02111stQuarter2025.pdf>
- Wang, C., Ponnappalli, A. R., & Sin, H.-P. (2024). A purposeful approach to LMX differentiation: The role of LMX with key members. *Group & Organization Management*, 49(2), 299–331. <https://doi.org/10.1177/10596011241230702>
- Worku, M. A., & Debela, K. L. (2024). A systematic literature review on organizational citizenship behavior: Conceptualization, antecedents, and future research directions. *Cogent Business & Management*, 11(1), 1–19. <https://doi.org/10.1080/23311975.2024.2350804>
- Wright, P. M., Dunford, B. B., & Snell, S. A. (2001). Human resources and the resource based view of the firm. *Journal of Management*, 27(6), 701–721. <https://doi.org/10.1177/014920630102700607>
- Xu, H., Wayne, S. J., Wang, L. C., & Pan, J. (2024). LMX differentiation as a double-edged sword: A social hierarchy perspective for understanding the beneficial and detrimental effects of LMX differentiation on team performance. *Personnel Psychology*, 77(2), 713–745. <https://doi.org/10.1111/peps.12564>
- Yu, A., Matta, F. K., & Cornfield, B. (2018). Is leader-member exchange differentiation beneficial or detrimental for group effectiveness? A meta-analytic investigation and theoretical integration. *Academy of Management Journal*, 61(3), 1158–1188. <https://doi.org/10.5465/amj.2016.1212>

ARTIFICIAL INTELLIGENCE ADOPTION IN HUMAN RESOURCES MANAGEMENT PROCESSES: A CORPORATE START-UP CONTEXT IN DEVELOPING ECONOMIES

Arachie Augustine Ebuka^{1)*}, Nwafor Angela Ebele²⁾, Obiekezie Alphonsus Emenike³⁾, Ukadike Ifeanyichukwu
Stewarts⁴⁾

^{1,2,3,4)} Faculty of Management Sciences, Nnamdi Azikiwe University, Nigeria

e-mail: ae.arachie@unizik.edu.ng
(Corresponding Author indicated by an asterisk *)

ABSTRACT

This study examined the role of AI adoption in Human Resources Management (HRM) processes within corporate start-ups in developing economies. Adopting a mixed-methods survey research design, the study sampled 293 Limited Liability SME start-ups across five states in Nigeria, collecting quantitative data via primary questionnaires and qualitative insights through a thematic analysis of 12 peer-reviewed articles. A total of 215 valid responses were used for the analysis, representing a 73% response rate. Thematic findings revealed that AI plays a vital strategic role across key HRM functions, including talent acquisition, personalised onboarding, real-time performance tracking, employee retention analytics, and administrative task automation. Conversely, the empirical analysis indicated that the most critical challenges hindering AI adoption are practical constraints such as the perception that their businesses are too small to implement AI, a severe shortage of AI-skilled personnel, and a limited understanding of how AI functions in HR operations, among others. The study also revealed that AI adoption offers corporate start-ups in developing economies opportunities for efficient recruitment, personalised training, improved performance management, employee retention, administrative automation, and enhanced global competitiveness. The study concluded that AI is significant for the competitive agility and sustainable growth of corporate start-ups in emerging economies. It recommended, among others, a phased technology adoption approach alongside proactive management and government support such as training workshops, grants, and subsidised digital infrastructure to mitigate cost barriers and enhance AI literacy. The study's focus on start-ups in five Nigerian states limits its generalisability and therefore becomes a limitation to the study.

Keywords: Artificial Intelligence; Human Resources Management; Corporate Start-up; Developing Economies; Technology Adoption

INTRODUCTION

Technology is no longer an option for most organisations, but their lifestyle. Organisations that refuse to adopt and adapt to new technological trends in their everyday dealings, operations and interactions will soon find themselves struggling with those that do. It is in realisation of this that Okereke et al. (2025) stated that the world is progressively shifting towards omnipresent technology. A world in which technology is progressively infiltrating nearly every facet of human and organisational existence. The most common form of technology which is progressively permeating all facets of corporate organisational existence is Artificial Intelligence (AI).

Murire (2024) opines that technological breakthroughs such as AI are revolutionising the workplace and altering the timing, methods, locations, and personnel involved in task execution. Similarly, Al-Onizat (2023) posits that as technology advances swiftly, AI has infiltrated nearly every sector. Sectors such as health, manufacturing and education are some of the most widely AI-adaptive sectors. It has significantly advanced throughout nearly all sectors of the economy, including healthcare, industry, research, and manufacturing (Nwosu et al., 2026). It continues to serve as one of the most innovative contemporary approaches to ever be applied in various domains such as business, finance and health (Bharadiya et al., 2023).

Artificial intelligence (AI) tools used in industries include machine learning (ML), Natural Language Processing (NLP), among others. Kabir (2020) states that AI has become increasingly significant in the corporate sector for many applications, such as NLP, automation, and predictive analytics. All these tools can be applied in various operations in the corporate world, including customer relationship management, production processes, accounting and inventory management. Human Resources Management (HRM) is not left out in the AI craze, as many researchers have pointed out that HRM is one of the prominent areas in organisations where AI can be adopted.

The influence of AI in HRM has been progressively rising, revolutionising the execution of HR operations across nearly all fundamental domains of HRM (Nawaz et al., 2024). Traditional HR tasks, such as candidate screening, resume parsing, and performance evaluation, can now be automated through AI-driven tools (Bhardwaj et al., 2020). The integration of AI in HRM holds immense promise for the future of workforce management (Muralidhar et al., 2023).

The application of AI, including machine learning, natural language processing, and data analytics, can revolutionise HR practices (Kaushal et al., 2023); however, it was observed that some corporate organisations, especially those in developing economies, those still starting up or newly established ones, and still finding their way into corporate existence, still struggle with AI adoption. This is probably because of limited financial resources, less stable digital infrastructure, and less technological literacy compared to large companies in developed countries. They seem to play second fiddle to established corporate entities, and if this trend continues, they may not be able to grow, survive or compete with the bigger firms, leading to loss of jobs, unemployment and increased criminality.

Previous empirical studies demonstrate AI's relevance to SMEs but leave questions concerning HRM adoption among Nigerian start-ups. Abrokwah-Larbi and Awuku-Larbi (2024) surveyed 225 SME respondents and found significant relationships between AI in marketing and business performance; however, their focus was marketing rather than HRM. González et al. (2025), studying 250 Ecuadorian SMEs, identified abilities, motivation, and organisational opportunities as key factors explaining AI adoption in talent management. Similarly, Srivastava and Himanshu (2026), drawing on 140 HR professionals in India, highlighted technological interfaces, data integrity, and competitive considerations as adoption priorities. These studies provide relevant evidence but do not establish the HRM adoption priorities of corporate start-ups in Nigeria.

This study adopts the Technology–Organisation–Environment (TOE) framework as an interpretive lens for examining AI adoption in HRM. The framework considers technological, organisational, and environmental conditions, as applied to SME HRM adoption by Srivastava and Himanshu (2026). Here, it provides a basis for interpreting technological readiness, organisational resources and employee skills, alongside regulatory conditions, in understanding the adoption barriers and opportunities facing corporate start-ups.

This study addresses the contextual gaps observed in the literature through the following objectives:

1. Examine areas of AI adoption in HRM processes of corporate start-ups in developing economies.
2. Identify challenges militating against the adoption of AI in HRM processes of corporate start-ups in developing economies.
3. Identify the opportunities and prospects of AI adoption in HRM processes of corporate start-ups in developing economies.

Research Questions

1. What are the areas where AI can be adopted in HRM processes of corporate start-ups in developing economies?
2. What challenges mitigate against the adoption of AI in HRM processes of corporate start-ups in developing economies?
3. What are the opportunities and prospects of AI adoption in HRM processes of corporate start-ups in developing economies?

LITERATURE REVIEW

Artificial Intelligence in Human Resources Management

Artificial intelligence (AI) as a concept has to do with making machines function like humans. Nwosu et al. (2026) state that AI functions when machines, software and hardware start acting like intelligent humans. The intelligence of the system allows it to learn and act upon data it receives or has come across in the past. It is a system's capacity to accurately analyse external data, assimilate knowledge from that data, and apply those insights to accomplish specific objectives and activities through adaptable methods (Haenlein & Kaplan, 2019; Morgenstern et al., 2021). This capacity of AI has seen its adoption spread rapidly over the past couple of years to different sectors and processes in organisations. The Human Resources Management field has, therefore, received its fair share of AI adoption.

The use of artificial intelligence (AI) in HRM is being developed, tested, analysed, and investigated empirically in various research domains (Meijerink et al., 2021; Prikshat et al., 2021). AI in HR denotes the application of machine learning techniques, natural language processing (NLP), and predictive data analysis to automate and enhance diverse HR procedures (Sundari et al., 2024). Some of the key functions AI is used for in HRM include training and development, compensation management and welfare packages for employees. In alignment with this, Rathore (2023) posits that AI's deployment in HRM covers recruitment and selection, where tools like automated resume parsing and video interviews with facial analysis enable efficient candidate evaluation. Similarly, Kaushal et al. (2023) aver that AI drives intelligent onboarding and training, offering personalised learning pathways and virtual reality-based simulations. ML powers predictive HR analytics, assisting turnover prediction, workforce planning, and identifying high-potential employees (Bandari, 2019). It allows HR managers and organisations to use predictive analytics to assess employee development needs, design customised training programs, and manage individual career paths based on real-time measured performance data (Sundari et al., 2024).

With the help of AI in HRM, many jobs that were based on guesswork are now data-driven and executed in a faster and more accurate manner. By using AI-based predictive models, HR managers and organisations in general are able to make faster and more informed decisions through data involvement regarding employee development and talent retention. In a similar line of thought, Forrester (2023) states that AI tools and technologies help in shrinking the time it takes to come to a critical HR decision by 30%, thereby helping to improve overall HR productivity.

AI Applications in Recruitment and Selection

The places where AI can be deployed in HRM processes are variegated, one of which is in recruitment and selection. Sundari et al. (2024) avers that one of the areas that has undergone the most transformation in terms

of AI adoption in HRM is in recruitment and selection. In the past, HR operatives used to scan through hundreds, and sometimes thousands of applications by seemingly qualified candidates for jobs, but with AI deployment, this is no longer the case, as the same cumbersome process can now be done easily and more accurately. The days of relying solely on physical labour to complete the recruitment process have long since gone, with AI technology adoption (Khan et al., 2024). Contemporary AI algorithms can rapidly analyse thousands of job applications, NLP to align candidate abilities with pertinent job descriptions (Norman & Pahlawati, 2024). AI can take it a notch further by conducting automated interviews with chatbots that have been taught in conventional interviewing methodologies (Sundari et al., 2024).

The integration of AI in the recruitment and selection processes represents a significant shift from the norm. This was the view of Muralidhar et al. (2023) when they stated that AI Integration in recruitment processes signifies a paradigm shift, streamlining traditional methods with cutting-edge technology. In this light, Sundari et al. (2024) aver that AI facilitates the implementation of advanced Applicant Tracking Systems (ATS), wherein algorithms may autonomously analyse thousands of CVs and align them with job specifications based on pertinent keywords, experience, and abilities. AI algorithms in combination with ML analyse vast datasets to identify patterns and criteria for successful recruitment (Žibret, 2024).

AI-driven candidate screening automates the preliminary evaluation of candidates, effectively narrowing down applicants who meet job requirements (Kaushal et al., 2023). Moreover, automated resume parsing utilises NLP to extract relevant information from resumes, hence enhancing the assessment of abilities and experiences (Ali et al., 2022). Simultaneously, video interviews enhanced by facial analysis interpret non-verbal signals, providing nuanced insights for evaluating candidate appropriateness. AI not only improves efficiency but also emphasises candidate experience (Bankins, 2021; Dima et al., 2024). AI-powered chatbots address real-time candidate inquiries, facilitating smooth and dynamic engagement. Predictive analytics use data-driven insights to evaluate candidate performance, identifying optimal candidates through algorithmic analysis of past data (Bandari, 2019).

AI in Employee Onboarding and Training

Employee onboarding and training represent a very critical area in the HRM function, hence, has also witnessed massive usage of AI in this aspect, signalling a new phase of onboarding and training dynamics. Muralidhar et al. (2023) state that the incorporation of AI in employee onboarding and training signifies a transformative phase of tailored and effective learning experiences in HRM processes and procedures. The employee onboarding process, previously characterised by extensive paperwork and administrative duties, has undergone a significant transition due to the incorporation of AI (Žibret, 2024). AI enhances efficiency and automates typical administrative operations, including form completion, document submission, and other procedural obligations. The onboarding process accelerates, and the utilisation of AI enables HR experts to concentrate on more strategic elements of onboarding (World Economic Forum, 2021).

AI-driven onboarding commences with customised experiences that address the specific demands of each employee (Muralidhar et al., 2023). Personalised training suggestions are generated by AI algorithms that evaluate employee profiles and prior experiences to provide training modules aligned with their skill set and learning speed (Bhutoria, 2022). Furthermore, virtual reality (VR) simulations immerse new employees in realistic circumstances, facilitating practical training prior to their official positions (Almousa et al., 2019). This immersive method accelerates learning and fosters a profound comprehension of professional duties. Training is enhanced by AI's capacity to deliver real-time feedback (de Laat et al., 2020). Employees have prompt insights into their performance, promoting a culture of ongoing enhancement. Predictive analytics aid in recognising potential skill deficiencies and providing focused training interventions (Vincent-Lancrin & van der Vlies, 2020). This enables people to enhance their skills and adjust to changing job requirements. Moreover, AI-assisted training improves information retention using adaptive learning methodologies, tailoring the training material according to an employee's advancement and understanding (Muralidhar et al., 2023).

Employee training is enhanced by AI-based systems that deliver personalised training according to individual requirements (Sundari et al., 2024). Chatbots are deployed widely for these purposes, as captured by

Gryncewicz et al. (2023). They state that AI-driven chatbots serve as virtual mentors, acting as the initial point of contact for new employees by delivering real-time information regarding corporate policies, culture, and accessible resources. AI-driven chatbots and educational platforms enable employees to access training resources at any time and receive training recommendations tailored to their professional requirements (Pratama et al., 2023). They guarantee that essential information is conveyed in a uniform and standardised way (Gryncewicz et al., 2023).

AI in Workforce Planning

One of the most difficult parts of the job of HR managers is workforce planning. This is because of the difficulties associated with the predictability of the workforce, as there could be an unplanned workforce need at any time, occasioned by resignation, death or accident. When this sort of vacancy appears, it becomes difficult to predict and consequently to fill. However, the adoption and integration of AI in workforce planning can bring some form of prediction to the whole process. In the dynamic landscape of modern business, organisations are using the power of AI to upgrade their workforce planning strategies (Žibret, 2024). Conventional workforce forecasting techniques frequently depend on previous data and intuition. Conversely, AI employs advanced algorithms that examine historical trends and present market conditions to forecast future manpower needs with considerable precision (Žibret, 2024). The projection guarantees that the organisation will effectively meet staffing requirements while also emphasising the appropriate talents (Scully et al., 2020).

The potential skill gaps in an organisation can be accurately predicted through AI-enabled algorithms, hence reducing guesswork and intuitive work. AI assists in identifying skill deficiencies and areas requiring enhancement. This enables organisations to execute precise training programs, reskilling campaigns, or externally recruit necessary people (Saini & Tarkar, 2022). Advanced algorithms evaluate historical data, employee preferences, and corporate needs to generate optimised schedules that reconcile employee well-being with operational efficiency (Žibret, 2024). This improves employee satisfaction and guarantees that firms utilise their human resources efficiently while aligning them with strategic objectives (Scully et al., 2020).

AI in Performance Management

The performance management function, as an arm of HRM processes, has also witnessed its fair share of AI encroachment. Muralidhar et al. (2023) capture it thus: AI transforms performance management through the facilitation of real-time feedback systems. Through AI instrumentality, conventional annual evaluations are replaced by continuous feedback mechanisms, providing employees with prompt insights into their strengths and areas for enhancement. A greater percentage of the work of AI in performance management is carried out by algorithms. AI algorithms evaluate diverse data sources, encompassing project outcomes and peer interactions, to produce detailed performance profiles (Wamba-Taguimdje et al., 2020).

Performance management was full of subjectivism in the past, but AI is transforming it to be more data-driven and precise in predictions and evaluations. Žibret (2024) opines that hitherto, performance management was heavily reliant on subjective evaluations, but it is entering a new phase with the incorporation of AI. AI, therefore, fundamentally transforms how firms assess, evaluate, and improve employee performance. The new paradigm emphasises objectivity, efficiency, and strategic insights (Žibret, 2024). The ability to analyse concrete data through AI enhances the chances of objectivity. AI algorithms can help organisations concentrate on objective metrics, such as project completion rates, quality of output, compliance with deadlines, etc. (Žibret, 2024). The objectivity made possible by AI adoption makes for limited biases, ensuring that employees are assessed on merit and not by subjective impressions (Madanchian et al., 2023).

Data-driven decision on performance evaluation and management is made possible by AI adoption. This was the position of Khan et al. (2024) when they opined that AI technologies transform traditional performance evaluation and operational improvement approaches by enabling managers and HR consultants to rapidly access and analyse performance data, hence facilitating informed decision-making and innovative solutions. Moreover, AI facilitates the formulation of achievable performance targets tailored to an employee's competencies and job requirements (Farhan et al., 2025). This data-driven approach ensures alignment of objectives and enhances

overall organisational effectiveness (Muralidhar et al., 2023).

Holmström and Carroll (2024) assert that AI can augment performance management innovations through the integration of prompt engineering into workflows, utilising AI technologies like ChatGPT to deliver novel solutions in problem-solving, market research, content creation, decision support, and design prototyping. The strategic application of AI-driven quick engineering improves innovation and efficiency, optimising AI's capacity to transform performance management methods across many corporate functions (Khan et al., 2024). Bersin (2019) posits that incorporating AI into performance management systems could facilitate the identification and rectification of underperformance by analysing internal data to uncover issues such as inappropriate team sizes, skill deficiencies, complications arising from long-tenured employees, or insufficient diversity.

Opportunities of AI Adoption in HRM

The most immediate opportunity provided by AI is the automation of repetitive tasks (Nawaz et al., 2024; Vanisree & Shree, 2024). Traditional HR operations, such as candidate screening, resume parsing, and payroll administration, often consume significant resources (Madanchian et al., 2023). AI-driven tools, such as automated resume parsing and intelligent chatbots, process vast datasets in seconds, significantly reducing "time-to-hire" and allowing HR professionals to focus on high-value strategic initiatives (Agwu, 2026; Olaniyan et al., 2022).

Beyond efficiency, AI offers unprecedented personalisation of the employee experience (Nawaz et al., 2024; Khan et al., 2024). Machine learning algorithms can identify individual learning needs, recommending tailored training programs and career development pathways (Nawaz et al., 2024; Qin et al., 2025). This shift towards "mass personalisation" extends to compensation and benefits, where AI assists in designing flexible reward packages that align with individual aspirations, thereby fostering higher employee engagement and retention (Nawaz et al., 2024; Agwu, 2026).

Furthermore, AI enhances decision-making accuracy by providing real-time insights (Madanchian et al., 2023; Basiouny, 2025). Predictive modelling allows organisations to forecast workforce trends, identify employees at risk of attrition, and bridge skill gaps before they impact productivity (Hinge et al., 2023; Agwu, 2026). In performance management, AI-enabled systems facilitate continuous feedback and objective evaluations based on real-time metrics, moving away from rigid, often biased, annual review cycles (Agwu, 2026; Nyathani, 2023).

Challenges of AI Adoption in HRM

Adopting AI in HRM, despite the numerous advantages that come with it, still has its various flaws and challenges. There are issues of data/algorithmic bias; there are also issues of data security/privacy and skill gaps. Popo-Olaniyan (2022) assert that a principal obstacle in the use of AI in HR is the risk of algorithmic bias. If AI systems are trained on biased data, they may reinforce and intensify existing biases in human resources operations. They further explained that the handling of sensitive employee data as occasioned by AI usage in HRM raises concerns about the privacy and security of such data. Algorithmic bias can put certain groups in a disadvantageous position. It can result in discriminatory outcomes, disadvantaging certain demographic groups in recruitment, performance evaluations, and other HR processes (Popo-Olaniyan, 2022).

Algorithmic bias, lack of transparency, and fairness concerns in AI have undermined the trustworthiness and accountability of automated decision-making systems in recruitment, promotion, and performance evaluation (Wang & Zhang, 2025). There are also ethical concerns with regard to AI in HRM. Agwu (2026) opines that the rapid expansion of AI HR systems has precipitated significant ethical, legal, and social concerns. The issue of resistance also persists as an encumbrance to AI adoption in HRM processes. Employees, particularly those accustomed to manual processes for an extended period, may experience anxiety regarding job security or see a threat from technology advancements as a result of AI adoption in HRM. This opposition to AI is frequently driven by apprehensions that automation will wholly supplant human positions (Sundari et al., 2024).

Prospects: The Future of Collaborative Intelligence

The future of AI in HRM lies in human-AI collaboration (Madanchian et al., 2023; Agwu, 2026). The

concept of "augmented intelligence" suggests a relationship where AI handles complex data processing while humans focus on strategic, creative, and empathetic tasks (Madanchian et al., 2023; Agwu, 2026). This collaborative model is essential for sustainable HRM, balancing productivity with employee well-being (Agwu, 2026; Khan et al., 2024).

Emerging trends poised to revolutionise the field include:

1. Generative AI and Large Language Models (LLMs): Tools like ChatGPT are beginning to automate content creation for job descriptions and personalised performance feedback (Agwu, 2026; Khan et al., 2024).
2. Immersive Technologies (AR/VR): The integration of AI with virtual reality offers immersive onboarding and training experiences in simulated environments (Madanchian et al., 2023; Agwu, 2026).
3. Real-time Well-being Monitoring: Future AI may monitor mental health and work-life balance through sentiment analysis during digital interactions, enabling proactive interventions (Hinge et al., 2023; Agwu, 2026).
4. AI Ethics and Governance: Specialised roles such as AI Ethics Officers and standardised ethical frameworks will be crucial for maintaining accountability (Agwu, 2026; Menaka, 2023).

Table 1. Comparison of Challenges, Opportunities, and Future Directions in AI-Based HRM

Sr. No.	Aspect	Challenge	Opportunity	Future Direction
1	HR Analytics	Data privacy	Better prediction	Secure AI
2	Recruitment	Bias	Faster hiring	Fair AI
3	Talent Management	Skill gaps	Personalization	AI coaching
4	Workforce Planning	Data errors	Forecasting	Real-time AI
5	Performance AI	Lack of trust	Accuracy	Explainable AI
6	Employee Analytics	Surveillance	Engagement	Ethical AI
7	HR Automation	Job fear	Efficiency	Human-AI teams
8	Digital HRM	Complexity	Integration	Smart platforms
9	AI Governance	Regulation	Accountability	Global standards
10	Diversity AI	Bias risk	Inclusion	Fair algorithms
11	Learning AI	Overfitting	Adaptive learning	Generative AI
12	HR Systems	Cost	Scalability	Cloud AI
13	Talent Analytics	Data bias	Insights	Responsible AI
14	Cognitive HR	Transparency	Automation	Hybrid AI
15	Organizational Analytics	Uncertainty	Strategy	Predictive AI
16	HR Policy	Legal risk	Compliance	AI law
17	HR Ethics	Misuse	Trust	Governance models
18	Workforce AI	Resistance	Productivity	Training
19	Smart HR	Integration	Intelligence	Autonomous HR
20	Employee Experience	Privacy	Personalization	Ethical analytics
21	AI Decision	Opacity	Speed	Explainable models
22	HR Leadership	Skill gap	Upskilling	AI literacy
23	Sustainable HRM	Balance	Long-term value	Human-centric AI
24	Future Work	Uncertainty	Flexibility	Hybrid workforce
25	Intelligent HR	Complexity	Innovation	Responsible automation

Source: Adapted from "Artificial Intelligence and Human Resource Management: HR Analytics, Talent Management, and Ethical AI," (Agwu, 2026), *International Journal of Applied Resilience and Sustainability*, 2(2), 989–1013, <https://doi.org/10.70593/deepsci.0202041>

Table 1 shows the comparison of challenges, opportunities, and future directions in AI-based HRM as sourced from the work of Agwu (2026). It shows that while AI offers a lot of opportunities to businesses in areas of HR operations, the successful adoption is still encumbered by several challenges, which can be categorised into technological, organisational, ethical, and regulatory challenges.

Theoretical Framework

This study is anchored on the Technology–Organisation–Environment (TOE). This theory was propounded by Tornatzky and Fleischer (1990) in their seminal book, *The Processes of Technological Innovation*. This theory was developed to explain how organisations adopt and implement technological innovations. Unlike

technology-adoption theories that concentrate mainly on individual users' attitudes or behavioural intentions, TOE approaches technology adoption at the organisational level. It argues that the adoption of technological innovation is influenced by conditions within three broad contexts: the technology available to the organisation, the characteristics and resources of the organisation itself, and the external environment in which it operates (Tornatzky & Fleischer, 1990). Even in recent times, modern theories have continued to use TOE for organisational technology adoption, including artificial intelligence (AI) adoption by small and medium-sized enterprises (SMEs) (Badghish & Soomro, 2024; Sánchez et al., 2025).

The central proposition of the TOE framework is that an organisation's adoption and implementation of technological innovation are shaped by the interaction of three contexts: technological, organisational and environmental (Tornatzky & Fleischer, 1990). The technological context has to do with the technologies available within and outside an organisation and the characteristics of those technologies that may encourage or discourage adoption. Factors commonly considered under this dimension include relative advantage, compatibility, complexity, cost and the technological infrastructure required to support an innovation. The organisational context, on the other hand, deals with the internal attributes and resources of the organisation that determine its readiness to adopt a technology. These may include organisational size, financial resources, human capital, employees' technical competence, organisational culture and support from management. Covering the conditions outside the immediate control of the organisation is the environmental context. Here, conditions that can either facilitate or constrain technology adoption outside the organisation are captured. These include competitive pressure, government policies and regulations, market and customer demands, availability of technology vendors, external infrastructure and institutional support. For SMEs in particular, government support and the wider technology ecosystem can be important because smaller businesses often possess fewer internal resources with which to overcome adoption barriers.

The relationship between the TOE theory and this work is tied to the fact that it talks about technology and the determinants of its adoption in organisations. Technological adoption, based on the theory's point is rarely determined by the attractiveness or usefulness of the technology alone, rather, it is a combination of factors. An organisation may recognise the potential value of an innovation/technology such as AI but still be unable to adopt it because it lacks adequate resources, technical expertise, managerial support, infrastructure or a favourable external environment. This broader perspective has made TOE useful in studies of technologies ranging from business intelligence and cloud computing to artificial intelligence. This current study examines AI adoption in Human Resource Management (HRM) processes among corporate start-ups in developing economies. It seeks to identify areas where AI can be adopted in HRM, the challenges constraining its adoption, and the opportunities and prospects associated with its utilisation. These issues can be understood within the three dimensions proposed by TOE.

From the technological perspective, the framework helps explain whether corporate start-ups possess or can access the technological infrastructure necessary to integrate AI into HR activities such as recruitment, onboarding and training, performance management, employee retention and administrative automation. The organisational dimension has an even more direct relationship with the study, where inhibitors are looked at. Lack of AI-skilled personnel, inability to afford employees capable of managing AI systems, lack of organisational readiness, and the perception of the size of the business can all act as inhibitors to AI adoption. These factors reflect organisational readiness, human capital, financial capacity, firm size and technological knowledge, all of which fall within the organisational context of TOE. The environmental angle of the theory provides a basis for understanding external conditions that can facilitate AI adoption among start-ups in developing economies. These factors could be government intervention and policies, regulatory authorities, technological infrastructure and partnerships with technology providers. All these factors connected to the three dimensions of the TOE theory makes the theory relevant to the study.

RESEARCH METHOD

This study adopts a descriptive survey design, supported by a narrative literature synthesis. The descriptive survey was used because a questionnaire was adopted for data collection from sample respondents to get details on areas of AI adoption in HRM processes and to identify challenges affecting corporate start-ups in their bid to adopt AI in their HRM processes. The narrative literature synthesis was adopted because peer-reviewed literature was used to identify established and emerging areas, opportunities and prospects of AI adoption in HRM. The study was carried out in South-East Nigeria, which has 5 states. The population of the study consisted of 1,231 Limited Liability registered SME start-ups within the states; one respondent (owner or manager) representing one SME, with 389 from Anambra, 333 from Abia, 213 from Enugu, 109 from Ebonyi and 187 from Imo State respectively, as sourced from the Corporate Affairs Commission registration (2026). Krejcie and Morgan (1970) sample size determination formula was used to arrive at a sample size of 293. Primary data were collected through a structured questionnaire administered electronically via Google Forms, while secondary evidence was obtained from peer-reviewed journal articles. Face and content validity were conducted to establish the appropriateness and relevance of the questionnaire items with the help of experts in Instrument and Validation, the Faculty of Education, Nnamdi Azikiwe University, Awka, Nigeria, while internal consistency was assessed using Cronbach's alpha, with an 87% consistency result. Of the 293 questionnaires distributed, 223 were returned, representing a gross response rate of 76.1%; following data screening, eight questionnaires with incomplete substantive responses were excluded, leaving 215 complete responses for analysis and an effective response rate of 73.4%. No missing values were imputed, and the analysis was therefore based on complete cases. The literature-search protocol was conducted across Scopus, Web of Science, IEEE Xplore, PubMed, Emerald, ScienceDirect and Google Scholar between 20th June to 30th June 2026, using the Boolean string ("artificial intelligence" OR "AI" OR "machine learning" OR "natural language processing" OR "predictive analytics") AND ("human resource management" OR "HRM" OR "human resources" OR "talent management" OR recruitment OR onboarding OR "performance management" OR "employee retention") AND (startup OR "start-up" OR SME* OR "small and medium enterprise*" OR "emerging economy*" OR "developing economy*")**, with minor syntax adjustments across databases. The search syntax was adapted where necessary to accommodate the search requirements of the respective databases while retaining the same core concepts and Boolean operators. The search initially identified 35 articles, from which six duplicate records were removed, leaving 29 unique articles for title and abstract screening. Ten articles were excluded at this stage for failing to satisfy the relevance and eligibility criteria, leaving 19 articles for full-text assessment. Following full-text assessment, seven additional articles were excluded because they did not sufficiently address AI in HRM (n = 3), did not adequately reflect the relevant SME/start-up organisational context (n = 2), or provided insufficient evidence relevant to the study objectives (n = 2). Consequently, 12 articles were retained for thematic synthesis. Eligible studies were peer-reviewed journal articles written in English, published between 2021 and 2026, and directly relevant to AI application or adoption in HRM. The methodological quality and relevance of the retained articles were assessed using the Mixed Methods Appraisal Tool (MMAT), 2018 version, where applicable to the respective research designs. Relevant findings from the 12 studies were extracted and coded according to recurring AI-HRM applications, opportunities and prospects, after which related codes were compared and consolidated into higher-order themes. Two researchers independently reviewed the coding and theme classifications, while disagreements were discussed and resolved through consensus. The literature review and survey data were deliberately used to address different but complementary study objectives. Specifically, the literature synthesis addressed the first and third objectives by identifying established areas of AI application in HRM and the opportunities and prospects associated with its adoption, whereas the primary survey addressed the second objective by providing context-specific empirical evidence on the perceived challenges hindering AI adoption among corporate start-ups in South-East Nigeria. The two evidence streams were therefore analysed separately and were not treated as equivalent empirical datasets. Integration occurred only at the interpretation and discussion stage through a side-by-side comparison of the survey findings with relevant literature-derived evidence; no statistical pooling of the two sources was undertaken. The challenge items were measured on a five-

point Likert-type scale ranging from Strongly Disagree (1) to Strongly Agree (5). Given the ordinal nature of individual Likert items, frequencies and percentages were used to describe their response distributions, while means were retained as supplementary measures to facilitate comparison and ranking across items. The scale midpoint of 3.0, corresponding to the neutral/undecided response category, was used only as a descriptive reference point for indicating whether responses generally tended towards agreement or disagreement and not as an inferential cut-off for statistically accepting or rejecting an item. The literature-derived evidence was analysed thematically by identifying and grouping recurring findings into broader themes relating to areas, opportunities and prospects of AI adoption in HRM; however, these themes were kept analytically separate from the primary survey findings because they originated from published studies rather than qualitative data collected directly from the sampled firms. Consequently, the study was not treated as a conventional mixed-method design and no formal mixed-method integration table was constructed; rather, the two bodies of evidence were brought together cautiously during the discussion to compare the survey results with existing literature.

RESULTS AND DISCUSSION

Data Analysis and Findings

Examine areas of AI adoption in HRM processes of corporate start-ups in developing economies.

In achieving this objective, thematic analysis was used, with data sourced from various secondary sources (peer-reviewed journals). The thematic analysis hereunder outlines the primary areas of AI adoption in HRM processes for corporate start-ups in developing economies.

The integration of AI in HRM represents a shift from a purely administrative function to a strategic competency that leverages data for decision-making. For start-ups in emerging markets, AI acts as a "workshop" of tools designed to enhance productivity and competitiveness despite potential resource limitations.

Theme 1: AI-Driven Talent Acquisition and Recruitment

One of the areas where AI is widely adopted in the HRM process is in recruitment. This is especially relevant where a high volume of applicants is found. In this, AI helps in:

1. **Efficient Sourcing and Screening:** The adoption of AI-powered Application Tracking Systems (ATS) in recruitment processes enables firms to automate resume parsing and keyword matching, which eventually helps to reduce the time spent on manual screening by up to 70% (Madanchian et al., 2023; Zhu, 2025).
2. **Predictive Matchmaking:** Advanced algorithms, made possible by AI, help to evaluate candidate suitability based on organisational culture and specific job requirements, which is reported to be up to 78% accurate (Aydin & Turan, 2023; Zhu, 2025).
3. **Bias Reduction:** AI tools help mitigate unconscious biases in the initial phases of hiring by relying on objective data points rather than the usual human intuition (Nawaz et al., 2024; Popo-Olaniyan, 2022).

Theme 2: Personalised Employee Onboarding, Training, and Development

Start-ups can use AI to bridge digital skill gaps common in developing economies through professional growth programs that are tailored to individual needs.

1. **Adaptive Learning Paths:** The performance and interests of individual employees can be analysed using AI to recommend personalised training modules, leading to an 89% completion rate compared to standard programs (Nawaz et al., 2024; Zhu, 2025).
2. **Immersive Simulations:** In this regard, AI tools such as Virtual Reality (VR) and augmented reality can be used to make the onboarding and technical upskilling processes interactive, which has been shown to increase employee involvement by 79% (Halid et al., 2024).
3. **Real-Time Mentoring:** Natural Language Processing (NLP) mentors can provide continuous support, reducing onboarding time for new hires by approximately 30% (Thangaraju & Palani, 2025).

Theme 3: Continuous and Objective Performance Management

AI can help in transforming the performance appraisal processes by moving from the hitherto rigid annual cycles to dynamic, real-time evaluation systems.

1. **Continuous Feedback Loops:** Daily performance metrics and communication patterns can be evaluated and monitored using AI in order to provide instant, data-driven feedback to both the managers and employees (Nyathani, 2023; Sundari et al., 2024).
2. **Increased Objectivity:** Over 35 performance metrics are analysed by automated systems, and this can reduce appraisal bias by up to 40% in sectors such as the Indian IT industry (Thangaraju & Palani, 2025), which can be the same when done well in other developing economies.
3. **Predictive Performance Insights:** Predictive modelling identifies high-potential employees and forecasts future performance roadblocks, allowing for proactive managerial interventions (Madanchian et al., 2023; Nyathani, 2023).

Theme 4: Strategic Employee Engagement and Retention Analytics

In developing economies where talent retention is often a challenge, start-ups utilise AI to predict attrition and enhance the employee experience.

1. **Sentiment Analysis:** The integration of NLP tools, which are AI components, can be used to evaluate feedback from internal emails, surveys, and social media to gauge collective satisfaction and address concerns that may be brewing (Popo-Olaniyan, 2022; Triveni, 2025).
2. **Attrition Prediction:** The retention strategies of firms can be better strategised to predict turnover through the adoption of machine learning models to analyse historical patterns that will enable firms to identify employees at risk of leaving (Madanchian et al., 2023; Nawaz et al., 2024).
3. **Customised Benefits:** Flexible compensation and reward packages can be administered by AI-assisted systems to make them tailored to individual employee goals, which fosters a deeper sense of commitment (Nawaz et al., 2024; Sundari et al., 2024).

Theme 5: Operational Efficiency through HR Process Automation

The administrative workload of small business owners can be greatly reduced through the automation of repetitive HRM functions.

1. **Routine Task Automation:** Administrative chores such as payroll processing, scheduling, and benefits management, which can be largely repetitive, can be handled through expert AI models, and this will improve overall operational efficiency by 30% (Sundari et al., 2024; Zhu, 2025).
2. **AI Chatbots:** Self-service and feedback mechanisms for employees can be optimised through virtual assistants that may serve as a reliable round-the-clock system for answering routine policy questions (Nawaz et al., 2024; Sundari et al., 2024).

Identify Challenges Militating Against the Adoption of AI in HRM Processes of Corporate Start-Ups in Developing Economies

Table 2. Challenges of AI Adoption in HRM Processes

SN	Questionnaire Items	SA (5)	A(4)	U(3)	D(2)	SD(1)	Mean	Remark	Rank
1	High implementation costs limit AI adoption in the HR processes of my organization.	102	46	5	50	12	3.82	Accept	4 th
2	Lack of AI-skilled personnel hinders effective AI implementation in my business.	130	63	12	10	-	4.46	Accept	2 nd
3	My employees are resistant to the adoption of AI in HR processes.	14	49	39	70	43	2.63	Reject	10 th
4	Concerns about employee data privacy discourages me to adopt AI in my HRM processes.	30	41	11	59	74	2.51	Reject	11 th
5	AI systems may produce biased recruitment or promotion decisions.	50	72	28	49	16	3.42	Accept	6 th

6	Inadequate technological infrastructure in the country limits AI adoption in my firm.	35	79	15	60	26	3.17	Accept	9 th
7	I have ethical and legal concerns about AI integration in my business.	-	26	7	121	61	1.99	Reject	12 th
8	Not being able to afford employees that can handle AI systems in my HR processes hinders its adoption.	45	78	12	80	-	3.41	Accept	7 th
9	My business is not ready for such things now	101	14	24	31	45	3.44	Accept	5 th
10	We are still small to start thinking about such things for my business for now.	173	10	32	-	-	4.66	Accept	1 st
11	Technically gifted people refuse to come work for businesses such as mine.	44	101	3	26	41	3.38	Accept	8 th
12	I still do not understand how it can work in HR operations in my business	70	121	2	10	12	4.06	Accept	3 rd

Source: Field Survey, 2026

Table 2 presents respondents' perceptions of the challenges affecting the adoption of Artificial Intelligence (AI) in Human Resource Management (HRM) processes among corporate start-ups. The analysis here is based on the means of the individual questionnaire items, with 3 being the acceptance threshold and below 3 representing rejection of that item as a challenge. The challenges were also ranked to identify the most pressing challenge and the least pressing challenge based on the assessment of the studied corporate start-ups. From the Table, it is seen that the most significant challenge militating against the adoption of AI by small business start-ups is the perception that their businesses are still too small to begin implementing AI in HR processes, with a mean of 4.66. In the second position, with a mean of 4.46, is the lack of AI-skilled personnel, indicating that the shortage of employees with AI competencies remains a major obstacle to successful AI implementation. This is closely followed by limited understanding of how AI can be applied in HR operations, with a mean of 4.06, and ranked third. In the fourth position, with a mean of 3.82, are high implementation costs, suggesting that the financial investment required for AI technologies discourages many start-ups from adopting them. Similarly, the perception that their businesses are not yet ready for AI adoption received a high level of agreement (Mean = 3.44, Rank = 5th), reflecting concerns about organisational readiness and digital maturity.

Other challenges as reported by the respondents include the possibility that AI systems may produce biased recruitment or promotion decisions, with a mean of 3.42 and ranked sixth. In the seventh position, with a mean of 3.41, is the inability to afford AI-competent employees. Coming in a distant eighth, though still above the threshold of acceptance of 3, is the difficulty in attracting technically skilled personnel, with a mean of 3.38. The inadequacy of technological infrastructure is in the ninth position in ranking, with a mean of 3.17. These findings indicate that financial, technological, and human resource limitations jointly constrain AI adoption among corporate start-ups. However, respondents did not consider several other factors to be major barriers. These factors include employee resistance to AI adoption, which recorded a mean score of 2.63 and ranked tenth, while concerns over employee data privacy had a mean of 2.51 and ranked eleventh. The lowest score among the challenges was ethical and legal concerns regarding AI integration, with a mean of 1.99 and ranked in the twelfth place. This is not because it is not an important challenge, but probably because the respondents lack awareness of it as a challenge. These findings imply that respondents are more concerned with practical issues such as organisational size, cost, skills, and readiness than with ethical, legal, or privacy-related issues.

Identify the Opportunities and Prospects of AI Adoption in HRM Processes of Corporate Start-Ups in Developing Economies

Table 3. Thematic Analysis of Opportunities and Prospects of AI in HRM for Start-ups

Theme	Key Opportunities & Prospects	Supporting Evidence & Citations
1. Advanced Talent Acquisition & Sourcing	Startups who adopt AI in their HR processes can handle high application volumes efficiently. It projects a reduction in time-to-hire by 38% and improves candidate matching accuracy to nearly 85% by analyzing skills and cultural fit rather than just keywords.	(Madrachian et al., 2023; Thangaraju & Palani, 2025; Zhu, 2025)
2. Upskilling & Personalized Development	Personalized learning opportunities can be arranged for startups in emerging economies that face gaps in digital skills when they adopt AI.	(Halid et al., 2024; Khan et al., 2024; Thangaraju & Palani, 2025)

	Prospects include using VR/AR simulations and NLP-powered mentors to reduce onboarding time by 30% and achieve an 89% training completion rate.	
3. Objective & Real-Time Performance Tracking	The subjectivism accoutered during performance management in the past can be greatly reduced through AI adoption. Startups are provided with real-time feedback loops and predictive insights into employee potential, reducing appraisal bias by up to 40%.	(Basiouny, 2025; Nyathani, 2023; Sundari et al., 2024; Thangaraju & Palani, 2025)
4. Strategic Engagement & Attrition Prediction	In environments where competition is rife from bigger and multinational businesses for small startups, AI can make for better retention capacity for these firms through sentiment analysis of communication and machine learning models that predict turnover risk with up to 95% accuracy, allowing for proactive intervention.	(Agwu, 2026; Hinge et al., 2023; Popo-Olaniyan, 2022; Triveni, 2025)
5. Operational Agility through Automation	Operational efficiency for startups can be improved by 30% through the automation of routine administrative tasks (payroll, leave, scheduling) through Robotic Process Automation (RPA) and chatbots. This allows their teams to redirect resources toward strategic innovation and mission-centric growth.	(Al-Onizat, 2023; Nawaz et al., 2024; Sundari et al., 2024; Zhu, 2025)
6. Enhanced Global Competitiveness	Through the instrumentality of AI adoption and leveraging data, startups in developing economies like Jordan, India, and Pakistan, Nigeria and other African countries, can enhance their agility and decision making, effectively allowing them to compete to some extent with bigger corporations and multinational enterprises.	(Alkudah et al., 2024; Nawaz et al., 2024; Zafar, 2023)

Source: Peer-reviewed Journal Articles, 2023-2026

Table 3 shows the results of the thematic analysis for the opportunities and prospects of AI adoption in HRM processes among corporate start-ups in developing economies. Themes here were identified from the reviewed literature and demonstrate that AI offers numerous strategic advantages capable of transforming HRM practices and enhancing organisational competitiveness.

From the Table, the first theme is Advanced Talent Acquisition and Sourcing, and it reveals that through AI, which enables firms to process larger volumes of applications in a shorter time, recruitment processes are greatly enhanced and made more efficient. The second theme, which is Upskilling and Personalised Development, indicates that AI has the potential to bridge digital skill gaps among the workers of firms. It can achieve this through adaptive learning platforms, virtual and augmented reality simulations, and Natural Language Processing (NLP)-powered virtual mentors. These AI-enabled tools allow firms to provide personalised training experiences that improve onboarding efficiency, employee learning outcomes, and workforce competence. Objective and Real-Time Performance Tracking is the third theme, and it highlights AI's ability to transform traditional performance management through the replacement of subjective appraisal systems with continuous, data-driven performance evaluation. This is achieved by providing organisations with real-time feedback, identifying employee strengths and weaknesses promptly, and reducing human bias in performance assessment.

The fourth theme, as seen in the Table, is Strategic Engagement and Attrition Prediction, which signifies the potential of AI to improve the retention capability of firms through predictive analytics and sentiment analysis. The identification of employees who are potential candidates for attrition is better predicted by analysing the behaviour of employees, their communication patterns, and historical workforce data. This will enable the firms to implement proactive retention strategies before the actual turnover takes place. This is very significant for start-ups that are always competing for talent in the global marketplace. Operational Agility through Automation is the fifth theme, and it shows that automating repetitive HR tasks such as payroll processing, leave administration, scheduling, and routine employee enquiries through chatbots and Robotic Process Automation (RPA) helps the organisation to improve its efficiency by allowing its workforce to carry out other more strategic and value-adding activities that contribute directly to organisational growth and competitive agility. Talking about global competitiveness is the sixth theme, which is captured as "Enhanced Global Competitiveness". This theme suggests that startup firms in developing economies can compete more globally by becoming innovative and smart through the adoption of AI in their HRM functions. Start-ups in developing economies can compete both in the local and international market through the intelligent use of organisational data, because they now have operational capabilities that were hitherto available to just the bigger and multinational corporations.

Discussion of Findings

The first objective of the study was to examine areas of AI adoption in HRM processes of corporate start-ups in developing economies. The thematic findings identified five major areas: talent acquisition and recruitment; employee onboarding, training and development; performance management; employee engagement and retention; and automation of routine HR processes. Specifically, AI-enabled tools were identified as useful for résumé screening and candidate matching, personalised training, real-time performance feedback, attrition prediction, sentiment analysis, payroll administration and employee self-service. These findings demonstrate that AI application in HRM extends beyond recruitment and can support activities across different stages of the employee lifecycle. The finding is consistent with Sundari et al. (2024), whose work discussed the role of AI in automating HR activities, personalising employee experiences and supporting performance-related decision-making. It also agrees with Madanchian et al. (2023), whose systematic review identified several AI-based HRM applications and highlighted the potential of AI tools to improve the efficiency of HR processes. Similarly, Nawaz et al. (2024) provided empirical evidence of the relevance of AI capabilities, including personalisation, to improving the efficiency of HRM practices. The present finding therefore reinforces the position that AI is becoming applicable across interconnected HR functions rather than being limited to a single activity. For start-ups, this is particularly important because automation and data-driven HR tools can reduce the burden associated with performing several HR activities with limited personnel.

In the second objective, the study sought to identify challenges militating against the adoption of AI in HRM processes of corporate start-ups in developing economies. From the findings, it showed that the major barriers to AI adoption were the perception that the business was too small to adopt AI, lack of AI-skilled personnel, limited understanding of how AI can work in HR operations, high implementation cost, and lack of organisational readiness. This finding is consistent with González et al. (2025), whose study of 250 Ecuadorian SMEs identified abilities, motivation and organisational opportunities as important factors explaining AI adoption in talent management. It also broadly supports Srivastava and Himanshu (2026), whose study involving 140 HR professionals in India highlighted technological interfaces, data integrity and competitive considerations among AI adoption priorities. The current study extends these findings by demonstrating that, within the start-up context, perceived organisational size and shortage of AI competence may constitute particularly immediate barriers. A notable contrast, however, emerged regarding employee resistance, privacy, and ethical and legal concerns. These recorded relatively low means and were therefore not perceived as major barriers by the respondents, probably because of a lack of awareness. This contrasts with the findings of earlier researchers such as Popo-Olaniyan (2022), whose study emphasised algorithmic bias and the privacy and security implications of processing sensitive employee information as major challenges. Also, Agwu (2026) highlighted ethical, legal and social concerns associated with AI-based HR systems as a major concern. The difference may indicate that start-ups at relatively early stages of AI adoption are more concerned with whether they can afford, understand and operate AI than with ethical and governance problems that may become more visible as adoption becomes deeper. Consequently, the low rating of privacy and ethical concerns should not necessarily be interpreted as evidence that such risks are absent.

Identification of the opportunities and prospects of AI adoption in HRM processes of corporate start-ups in developing economies was the third objective. From this, the thematic synthesis showed that AI offers strong prospects for corporate start-ups through faster recruitment, personalised employee development, real-time performance tracking, attrition prediction, automation of routine HR activities and improved competitiveness. The findings are broadly consistent with Madanchian et al. (2023), who identified AI-supported automation and data-driven HR processes, and Nawaz et al. (2024), whose work supports the value of personalisation and AI-enabled efficiency in HRM. Agwu (2026) similarly discusses opportunities for AI in HR analytics, recruitment, talent management, workforce planning and employee experience. The reviewed literature also indicates that predictive modelling can assist organisations in anticipating workforce trends and employee attrition, while AI-enabled performance systems can facilitate continuous feedback rather than relying exclusively on conventional periodic appraisals. An important implication of this finding is that AI may help reduce some of the disadvantages associated with the small size of start-ups. Automation can reduce administrative workload, while predictive

analytics and AI-supported decision-making can provide smaller businesses with HR capabilities that traditionally demanded substantial human and financial resources.

CONCLUSION

This study examined AI adoption in human resources management processes among corporate start-ups in developing economies with particular emphasis on areas of adoption, challenges, opportunities, and future prospects. The findings from the study showed that there are various areas where AI can be adopted in the HRM operations of corporate start-ups, including areas such as talent acquisition and recruitment, employee onboarding and training, performance management, employee engagement and retention, and the automation of routine HR activities. These areas of application highlight the growing relevance of AI as a strategic tool for improving organisational efficiency, decision-making, and workforce management. The study also indicated that corporate start-ups in developing economies face significant challenges in trying to adopt AI in their HRM operations, this is despite the opportunities and prospects adoption presents. Some of these challenges are high implementation costs, inadequate AI-related skills, limited technological readiness, and poor understanding of AI applications in HR operations. Some of the prospects of AI adoption in HRM functions are enhanced recruitment processes, personalised employee training and development, improvement in performance evaluation, better employee retention capacities, and increased overall operational efficiency. The study concludes that AI has become an indispensable component of modern HRM and can serve as a catalyst for competitiveness and sustainable growth among corporate start-ups in developing economies.

RECOMMENDATIONS

The following recommendations are made, following the findings from the study:

1. The owners and managers of corporate start-ups should prioritise a phased AI adoption in HRM, beginning with relatively affordable and less complex applications such as recruitment screening, employee enquiries, onboarding and routine administrative tasks before progressing to performance management and predictive HR analytics. Implementation should be guided by a simple AI adoption plan specifying the HR function, expected benefit, cost and responsible officer. Progress should be assessed periodically using measurable indicators such as reduction in recruitment time, administrative workload, HR processing time and operating costs.
2. The owners and managers of SMEs, especially those in HR functions, should focus on prioritising AI literacy and digital competency development to address the identified shortages in AI skills and understanding. This can be achieved feasibly through periodic short courses, workshops and partnerships with technology providers, training institutions and relevant government agencies. Measurable targets such as the number of HR personnel trained annually and their demonstrated ability to use approved AI tools effectively can be set by the SMEs.
3. Governments, regulatory agencies and enterprise-development institutions should prioritise financial, infrastructural and technical support for AI adoption among start-ups through competitive grants, tax incentives, subsidised digital infrastructure, shared AI facilities and targeted innovation-support programmes. Such interventions should be designed to be accessible to genuinely resource-constrained start-ups and tied to measurable outcomes, including the number of firms supported, employees trained, AI solutions implemented and improvements in HR efficiency.

LIMITATIONS OF THE STUDY

This study is limited by some factors. The first is that the empirical component was limited to corporate start-ups in South-East Nigeria, which may restrict the generalisation of the findings to start-ups in other developing economies as stated in the topic. Secondly, the survey relied on respondents' self-reported perceptions,

which may be affected by individual knowledge and understanding of AI applications in HRM. Thirdly, the literature-based component was restricted to studies that met the specified search and eligibility criteria, meaning that some studies that may have had some good contribution to the study may have been left out. Further studies will, therefore, be highly significant because of these limitations. Other researchers may want to extend the scope of their study to other regions within Nigeria or include other developing countries. Also, other studies could make their own more empirical, in which case they will collect more data from the SME owners or managers, rather than relying on secondary qualitative data from peer-reviewed journals whose study area may be significantly different from the current scope. Similarly, a comparative study could be carried out to know if there are differences in the use of AI for HRM processes in different regions of Nigeria or different countries in developing economies and probably take it a notch further by finding out why the differences exist, if they do.

REFERENCES

- Abrokwah-Larbi, K., & Awuku-Larbi, Y. (2024). The impact of artificial intelligence in marketing on the performance of business organisations: Evidence from SMEs in an emerging economy. *Journal of Entrepreneurship in Emerging Economies*, 16(4), 1090–1117. <https://doi.org/10.1108/JEEE-07-2022-0207>
- Agwu, D. J. (2026). Artificial intelligence and human resource management: HR analytics, talent management, and ethical AI. *International Journal of Applied Resilience and Sustainability*, 2(2), 989–1013. <https://doi.org/10.70593/deepsci.0202041>
- Ali, I., Mughal, N., Khan, Z. H., Ahmed, J., & Mujtaba, G. (2022). Resume classification system using natural language processing and machine learning techniques. *Mehran University Research Journal of Engineering and Technology*, 41(1), 65–79. <https://doi.org/10.22581/muet1982.2201.07>
- Alkudah, N. M., Almomani, T. O., & Sarayrah, S. A. (2024). Incorporating artificial intelligence in human resources management in small and medium companies: Descriptive study. *International Journal of Academic Research in Business and Social Sciences*, 14(3), 146–169. <https://dx.doi.org/10.6007/IJARBS/v14-i3/20946>
- Almousa, O., Prates, J., Yeslam, N., Mac Gregor, D., Zhang, J., Phan, V., Nielsen, M., Smith, R., & Qayumi, K. (2019). Virtual reality simulation technology for cardiopulmonary resuscitation training: An innovative hybrid system with haptic feedback. *Simulation & Gaming*, 50(1), 6–22. <https://doi.org/10.1177/1046878118820905>
- Al-Onizat, H. H. (2023). Analysis of recent advances in artificial intelligence for human resource management. *International Journal on Recent and Innovation Trends in Computing and Communication*, 11(10), 268–275. <https://doi.org/10.17762/ijritcc.v11i10.8943>
- Aydın, E., & Turan, M. (2023). An AI-based shortlisting model for sustainability of human resource management. *Sustainability*, 15(3), 1–15. <https://doi.org/10.3390/su15032737>
- Badghish, S., & Soomro, Y. A. (2024). Artificial intelligence adoption by SMEs to achieve sustainable business performance: Application of Technology–Organisation–Environment framework. *Sustainability*, 16(5), 1–24. <https://doi.org/10.3390/su16051864>
- Bandari, V. (2019). Exploring the transformational potential of emerging technologies in human resource analytics: A comparative study of the applications of IoT, AI, and cloud computing. *Journal of Humanities and Applied Science Research*, 2(1), 15–27.
- Bankins, S. (2021). The ethical use of artificial intelligence in human resource management: A decision-making framework. *Ethics and Information Technology*, 23(4), 841–854. <https://doi.org/10.1007/s10676-021-09619-6>

- Basiouny, H. M. E. S. A. (2025). The role of artificial intelligence in improving human resource management performance: (Case study on FAB Egypt). *Journal of Financial and Commercial Research*, 26(4), 870–905.
- Bersin, J. (2019). *AI in HR: The new frontier*. SHRM Executive Network. <https://www.shrm.org/content/dam/en/shrm/executivenetwork/AI%20in%20HR-%20The%20New%20Frontier.pdf>.
- Bharadiya, J. P., Tzenios, N. T., & Reddy, M. (2023). Predicting crop yield using deep learning and remote sensing. *Journal of Engineering Research and Reports*, 24(12), 29–44. <https://doi.org/10.9734/jerr/2023/v24i12858>
- Bhardwaj, G., Singh, S. V., & Kumar, V. (2020). An empirical study of artificial intelligence and its impact on human resource functions. In *2020 International Conference on Computation, Automation and Knowledge Management (ICCAKM)* (pp. 47–51). IEEE. <https://doi.org/10.1109/ICCAKM46823.2020.9051544>
- Bhutoria, A. (2022). Personalised education and artificial intelligence in the United States, China, and India: A systematic review using a human-in-the-loop model. *Computers and Education: Artificial Intelligence*, 3, 1–18. <https://doi.org/10.1016/j.caeai.2022.100068>
- de Laat, M., Joksimovic, S., & Ifenthaler, D. (2020). Artificial intelligence, real-time feedback, and workplace learning analytics to support in situ complex problem-solving: A commentary. *The International Journal of Information and Learning Technology*, 37(5), 267–277. <https://doi.org/10.1108/IJILT-03-2020-0026>
- Dima, J., Gilbert, M. -H., Dextras-Gauthier, J., & Giraud, L. (2024). The effects of artificial intelligence on human resource activities and the roles of the human resource triad: Opportunities and challenges. *Frontiers in Psychology*, 15, 1–15. <https://doi.org/10.3389/fpsyg.2024.1360401>
- Farhan, M., Alhazmi, A. K., & Alsakkaf, N. (2025). A model for AI-driven employee performance enhancement. *Journal of Science and Technology*, 30(2), 107–113. <https://doi.org/10.20428/jst.v30i2.2760>
- Forrester. (2023). *How AI improves HR functions and employee engagement*. Forrester Insight.
- González, C. A. C., Benítez, H. A. M., Montiel, E. G. M., Amaya, L. E. Y., & Ortega, R. V. (2025). The artificial intelligence adoption in human talent management among SMEs in emerging economies: Evidence from Ecuador. *Journal of Technology Management and Innovation*, 20(4), 88–100. <https://doi.org/10.4067/s0718-27242025000300088>
- Gryncewicz, W., Zygała, R., & Pilch, A. (2023). AI in HRM: Case study analysis. Preliminary research. *Procedia Computer Science*, 225, 2351–2360. <https://doi.org/10.1016/j.procs.2023.10.226>
- Haenlein, M., & Kaplan, A. (2019). A brief history of artificial intelligence: On the past, present, and future of artificial intelligence. *California Management Review*, 61(4), 5–14. <https://doi.org/10.1177/0008125619864925>
- Halid, H., Ravesangar, K., Mahadzir, S. L., & Halim, S. N. A. (2024). Artificial intelligence (AI) in human resource management (HRM). In C. Machado (Ed.), *Building the future with human resource management* (pp. 37–70). Springer. https://doi.org/10.1007/978-3-031-52811-8_2
- Hinge, P., Salunkhe, H., & Boralkar, M. (2023). Artificial intelligence (AI) in HRM (human resources management): A sentiment analysis approach. In *Proceedings of the International Conference on Applications of Machine Intelligence and Data Analytics (ICAMIDA 2022)* (pp. 557–568). Atlantis Press. https://doi.org/10.2991/978-94-6463-136-4_47
- Holmström, J., & Carroll, N. (2024). How organisations can innovate with generative AI. *Business Horizons*, 68(5), 559–573. <https://doi.org/10.1016/J.BUSHOR.2024.02.010>

- Kabir, M. E. (2020). Artificial intelligence in business and prospects. *IAR Journal of Entrepreneurship, Innovation & Design Thinking*, 1(1), 28–31. <https://doi.org/10.47310/iarjeidt.2020.v01i01.007>
- Kaushal, N., Kaurav, R. P. S., Sivathanu, B., & Kaushik, N. (2023). Artificial intelligence and HRM: Identifying future research agenda using systematic literature review and bibliometric analysis. *Management Review Quarterly*, 73(2), 455–493. <https://doi.org/10.1007/s11301-021-00249-2>
- Khan, M. I., Parahyanti, E., & Hussain, S. (2024). The role of generative AI in human resource management: Enhancing operational efficiency, decision-making, and addressing ethical challenges. *Asian Journal of Logistics Management*, 3(2), 104–125. <https://doi.org/10.14710/ajlm.2024.24671>
- Madanchian, M., Taherdoost, M., & Mohamed, N. (2023). AI-based human resource management tools and techniques: A systematic literature review. *Procedia Computer Science*, 229(2), 367–377. <https://doi.org/10.1016/j.procs.2023.12.039>
- Meijerink, J., Boons, M., Keegan, A. E., & Marler, J. H. (2021). Algorithmic human resource management: Synthesising developments and cross-disciplinary insights on digital HRM. *The International Journal of Human Resource Management*, 32(12), 2545–2562. <https://doi.org/10.1080/09585192.2021.1925326>
- Menaka, R. (2023). Role of artificial intelligence (AI) in human resource management (HRM) in recent era. *Shanlax International Journal of Management*, 11(2), 32–38. <https://doi.org/10.34293/management.v11i2.6664>
- Morgenstem, J. D., Rosella, L. C., Daley, M. J., Goel, V., Schünemann, H. J., & Piggott, T. (2021). AI's gonna have an impact on everything in society, so it has to have an impact on public health": A fundamental qualitative descriptive study of the implications of artificial intelligence for public health. *BMC Public Health*, 21(1), 1–14. <https://doi.org/10.1186/s12889-020-10030-x>
- Muralidhar, S., Bharadwaj, A. & Bhat, P. (2023). Coalesce of artificial intelligence and human resource management: A conceptual study. *BOHR International Journal of Advances in Management Research*, 2(1), 72–80. <https://doi.org/10.54646/bijamr.2023.20>
- Murire, O. T. (2024). Artificial intelligence and its role in shaping organisational work practices and culture. *Administrative Sciences*, 14(12), 1–16. <https://doi.org/10.3390/admsci14120316>
- Nawaz, N., Arunachalam, H., Pathi, B. K., & Gajenderan, V. (2024). The adoption of artificial intelligence in human resources management practices. *International Journal of Information Management Data Insights*, 4(1), 1–11. <https://doi.org/10.1016/j.ijime.2023.100208>
- Norman, E., & Pahlawati, E. (2024). Peran artificial intelligence dalam rekrutmen dan seleksi: Meningkatkan efisiensi dan akurasi dalam MSDM. *Sci-Tech Journal*, 3(1), 45–59. <https://doi.org/10.56709/stj.v3i1.320>
- Nwosu, C., Westcott, S. C., Arachie, A. E., & Oke, G. D. (2026). Optimising the marketing performance of small businesses through the instrumentality of artificial intelligence. *Business and Economics in Developing Countries*, 4(1), 10–15. <https://doi.org/10.26480/bedc.01.2026.10.15>
- Nwosu, K. C., Westcott, S. C., Arachie, A. E., & Okafor, N. M. (2026). Artificial intelligence democratisation in developing economies through the lenses of small business operations. *African Journal of Management and Business Research*, 22(1), 242–255. <https://doi.org/10.62154/ajmbr.2026.022.01022>
- Nyathani, R. (2023). AI in performance management: Redefining performance appraisals in the digital age. *Journal of Artificial Intelligence & Cloud Computing*, 2(2), 1–4. [https://doi.org/10.47363/JAICC/2023\(2\)134](https://doi.org/10.47363/JAICC/2023(2)134)
- Okereke, C. C., Arachie, A., Onah, F. S. & Ndum, N. B. (2025). Artificial intelligence (AI) adoption in supply chain management dynamics of manufacturing firms in emerging markets. *African Journal of Management and Business Research*, 21(1), 129–147. <https://doi.org/10.62154/ajmbr.2025.021.01017>

- Olaniyan, O. P., Elufioye, O. A., Okonkwo, F. C., Udeh, C. A., Eleogu, T. F., & Olatoye, F. O. (2022). AI-driven talent analytics for strategic HR decision-making in the United States of America: A review. *International Journal of Management & Entrepreneurship Research*, 4(12), 607–622. <https://doi.org/10.51594/ijmer.v4i12.674>
- Popo-Olaniyan, O. (2022). Artificial intelligence and analytics: Transforming HR decision-making in American organisations. *International Journal of Management & Entrepreneurship Research*, 4(12), 607–622.
- Pratama, A. S., Sari, S. M., Hj, M. F., Badwi, M., & Anshori, M. I. (2023). Pengaruh artificial intelligence, big data dan otomatisasi terhadap kinerja SDM di era digital. *Jurnal Publikasi Ilmu Manajemen*, 2(4), 108–123. <https://doi.org/10.55606/jupiman.v2i4.2739>
- Prikshat, V., Malik, A., & Budhwar, P. (2021). AI-augmented HRM: Antecedents, assimilation and multilevel consequences. *Human Resource Management Review*, 33(1), 1–18. <https://doi.org/10.1016/j.hmr.2021.100860>
- Qin, C., Zhang, L., Cheng, Y., Zha, R., Shen, D., Zhang, Q., Chen, X., Sun, Y., Zhu, C., Zhu, H., & Xiong, H. (2025). A comprehensive survey of artificial intelligence techniques for talent analytics. *Proceedings of the IEEE*, 113(2), 125–171. <https://doi.org/10.1109/JPROC.2025.3572744>
- Rathore, S. P. S. (2023). The impact of AI on recruitment and selection processes: Analysing the role of AI in automating and enhancing recruitment and selection procedures. *International Journal for Global Academic & Scientific Research*, 2(2), 78–93. <https://doi.org/10.55938/ijgasr.v2i2.50>
- Saini, H., & Tarkar, P. (2022). Artificial intelligence in human resource practices with challenges and future directions. In *Handbook of research on innovative management using AI in Industry 5.0* (pp. 222–230). IGI Global. <https://doi.org/10.4018/978-1-7998-8497-2.ch015>
- Sánchez, E., Calderón, R., & Herrera, F. (2025). Artificial intelligence adoption in SMEs: Survey based on TOE–DOI framework, primary methodology and challenges. *Applied Sciences*, 15(12), 1–43. <https://doi.org/10.3390/app15126465>
- Scully, J., Crawshaw, J., Fullard, A., Gregson, M., Clegg, B., & Turner, P. (2020). Workforce (Artificial) intelligence planning. In J. Crawshaw, P. Budhwar, & A. Davis (Eds.), *Human resource management: Strategic and international perspectives* (3rd ed., pp. 170–197). SAGE Publications.
- Srivastava, S. P., & Himanshu. (2026). Examining antecedents of AI-integrated digital HRM adoption in Indian SMEs. *Millennial Asia*. Advance online publication. <https://doi.org/10.1177/09763996251409324>
- Sundari, S., Silalahi, V. A. J. M., Wardani, F. P., Siahaan, R. S., Sacha, S., Krismayanti, Y., & Anjarsari, N. (2024). Artificial intelligence (AI) and automation in human resources: Shifting the focus from routine tasks to strategic initiatives for improved employee engagement. *East Asian Journal of Multidisciplinary Research*, 3(10), 4983–4996. <https://doi.org/10.55927/eajmr.v3i10.11758>
- Thangaraju, K., & Palani, P. (2025). Influence of AI-driven sustainable human resource management on employee creative performance. *Acta Technica*, 11(4), 153–163. <https://doi.org/10.22306/atec.v11i4.284>
- Tomatzky, L. G., & Fleischer, M. (1990). *The processes of technological innovation*. Lexington Books.
- Triveni, S. (2025). Leveraging AI technologies for effective employee engagement and retention in human resources. *International Research Journal of Modernisation in Engineering Technology and Science*, 7(1), 1–6.
- Vanisree, D., & Shree, D. V. (2024). Role of AI in human resource management. *International Journal of Scientific Research in Engineering and Management*, 8(4), 1–4. <https://doi.org/10.55041/IJSREM31361>
- Vincent-Lancrin, S., & van der Vlies, R. (2020). *Trustworthy artificial intelligence (AI) in education: Promises*

- and challenges* (OECD Education Working Papers No. 218). OECD Publishing.
<https://doi.org/10.1787/a6c90fa9-en>
- Wamba-Taguimdje, S. L., Wamba, S. F., Kamdjoug, J. R. K., & Wanko, C. E. T. (2020). Influence of artificial intelligence (AI) on firm performance: The business value of AI-based transformation projects. *Business Process Management Journal*, 26(7), 1893–1924. <https://doi.org/10.1108/BPMJ-10-2019-0411>
- Wang, S., & Zhang, H. (2025). Leveraging generative artificial intelligence for sustainable business model innovation in production systems. *International Journal of Production Research*, 63(18), 6732–6757. <https://doi.org/10.1080/00207543.2025.2485318>
- World Economic Forum. (2021, December 7). *Human-centred artificial intelligence for human resources: A toolkit for human resources professionals*. https://www3.weforum.org/docs/WEF_Human_Centred_Artificial_Intelligence_for_Human_Resources_2021.pdf
- Zafar, A. (2023). Unleashing AI potential in human resource management (A case study of corporate sector in Karachi). *Journal of Usman Institute of Technology University*, 4(1), 65–89. <https://doi.org/10.46568/gjmas.v4i1.182>
- Zhu, C. (2025). The role of AI tools in optimising human resource management practices. *Advances in Curriculum Design & Education*, 1(2), 1–13. <https://doi.org/10.63808/acde.v1i2.132>
- Žibret, K. (2024). The transformative role of artificial intelligence in human resources. *Mednarodno Inovativno Poslovanje Journal of Innovative Business and Management*, 16(1), 1–15. <https://doi.org/10.32015/JIBM.2024.16.1.5>

EMPLOYMENT TERMINATION THROUGH DIGITAL MEDIA: A PANCASILA INDUSTRIAL RELATIONS, DISPUTE SETTLEMENT, AND WORKERS' WELFARE PERSPECTIVE

Daniel H. Wibisana^{1)*}, Lady Yohana Kusnadi²⁾, Michael³⁾, Bernardus Wishman Simbora Siregar⁴⁾

^{1,2,3,4)}Master of Management Study Program, Matana University, Indonesia

e-mail: daniel.wibisana@student.matanauniversity.ac.id
(Corresponding Author indicated by an asterisk *)

ABSTRACT

This study aims to analyze the practice of employment termination through digital media in the case of PT Star Comgistic Indonesia from the perspectives of Pancasila Industrial Relations and workers' welfare, as well as to assess the conformity of the dispute settlement mechanism with Law Number 2 of 2004 concerning Industrial Relations Dispute Settlement. This study employs a normative juridical approach using a statute approach. The data sources consist of primary legal materials, secondary legal materials, and factual information obtained from online media reports regarding the case under study. The analysis is conducted qualitatively through systematic interpretation of the applicable legal norms. The findings indicate that the practice of employment termination through digital media in the case of PT Star Comgistic Indonesia suggests potential inconsistencies with the principles of deliberation, respect for workers' dignity, and togetherness, which constitute the foundation of Pancasila Industrial Relations. Furthermore, the absence of information regarding the implementation of bipartite negotiations prior to the termination suggests potential non-conformity with the dispute settlement mechanism stipulated in Law Number 2 of 2004. The practice also has the potential to generate implications for workers' welfare, both in material and non-material aspects. Therefore, employment termination through digital media should be understood not only from the perspective of formal legality but also from the perspective of industrial relations values and the protection of workers' welfare.

Keywords: Pancasila Industrial Relations; Termination of Employment; Workers' Welfare; Industrial Relations Disputes; Digital Communication

INTRODUCTION

Harmonious industrial relations constitute one of the important pillars in creating a productive and equitable work climate. The relationship between workers and employers is essentially not merely transactional but also encompasses social and humanitarian dimensions that require a balance of interests. When this relationship is well maintained, employment stability and business sustainability can proceed hand in hand.

In the Indonesian context, the relationship between workers and employers is grounded in the principle of Pancasila Industrial Relations (*Hubungan Industrial Pancasila/HIP*), which positions both parties as partners with equal standing who need one another. Na'im et al. (2023) explain that Pancasila Industrial Relations is based on the values of mutual cooperation, justice, and equality in relations between workers and employers to create harmonious and productive industrial relations. In line with this, Abrori (2023) asserts that conflicts in industrial relations should be resolved through deliberation and respect for the interests of each party, rather than through unilateral action. Thus, HIP is not merely a normative concept but also serves as the foundation for various instruments of Indonesian labor law.

The importance of employment protection has become increasingly significant amid the occurrence of employment termination in Indonesia. According to the Ministry of Manpower of the Republic of Indonesia (*Kementerian Ketenagakerjaan*), 57,261 workers were recorded as experiencing employment termination throughout 2024, while 98,127 workers were recorded in 2025 based on claims under the Job Loss Security (*Jaminan Kehilangan Pekerjaan/JKP*) system. By January 2026, an additional 359 workers had been recorded as affected by employment termination. These figures indicate the continuing occurrence of employment termination in Indonesia. However, the available national statistics do not specifically classify the communication medium used to deliver termination decisions.

However, a gap frequently persists between the ideals of law and realities on the ground. The practice of unilateral, abrupt employment termination that does not follow statutorily prescribed procedures remains a real phenomenon that often occurs. Wibowo and Herawati (2021) note that in practice many companies carry out unilateral terminations without following the established procedures, so that workers' rights to wages and severance pay go unfulfilled. This condition is further aggravated when termination is carried out not only unilaterally but also through a communication channel that fails entirely to reflect workers' dignity as human beings.

The development of digital technology has brought a new dimension to the dynamics of industrial relations. Work-related communication through digital platforms has expanded interactions between workers and employers beyond conventional workplace and working-hour boundaries, creating new considerations regarding workers' rights in the digital era (Noval, 2022). In this context, the use of digital media to communicate employment-related decisions, including termination, raises questions concerning the manner in which workers' rights and dignity are respected.

In this light, when digital media is used to communicate employment termination, the issue extends beyond the choice of communication channel and raises both legal and ethical concerns. From a legal perspective, employment termination is subject to applicable employment protection and procedural requirements, while the subsequent dispute must be addressed through the mechanisms provided under industrial relations law. From an ethical perspective, communicating termination through digital messaging may raise concerns regarding transparency, deliberation, fairness, and respect for workers' dignity, particularly when the affected workers do not have an adequate opportunity for dialogue. Therefore, the use of digital media in communicating termination needs to be examined not only in terms of

procedural compliance but also in relation to the values underlying Pancasila Industrial Relations (HIP).

This phenomenon is evident in the case of PT Star Comgistic Indonesia in Parungkuda Subdistrict, Sukabumi Regency, in April 2026. At least 80 permanent workers received termination notifications via WhatsApp message while on Eid al-Fitr leave. The company stated that the termination was carried out as an efficiency measure due to declining production orders. However, the labor union questioned this reasoning, as contract workers and outsourced workers were still retained and the company's operations were reportedly still ongoing. The Chairman of the Sukabumi Regency branch of *Gabungan Serikat Buruh Indonesia (GSBI)*, Dadeng Nazarudin, deemed the manner of termination to be non-transparent, inhumane, and inconsistent with the industrial relations procedures that should apply (Liputan6, 2026).

This case is important to examine because it represents an industrial relations issue that concerns not only legal aspects but also values and social impact. On one hand, it is necessary to analyze whether the practice is consistent with the principles of HIP, particularly regarding deliberation, fairness, and respect for workers' dignity. On the other hand, the dispute settlement mechanism pursued needs to be tested for conformity with the provisions of Law Number 2 of 2004 concerning Industrial Relations Dispute Settlement. Sari (2025) asserts that the ideal principles of industrial relations often do not function optimally in practice, particularly regarding communication and the amicable resolution of conflicts.

Research on employment termination generally focuses on the legality of termination, protection of workers' rights, or the dispute settlement mechanism in a partial manner. Meanwhile, discussion that integrates the practice of termination through digital media with the perspective of Pancasila Industrial Relations values, the dispute settlement mechanism under Law Number 2 of 2004, and its implications for workers' welfare has not received much attention in Indonesian labor law literature. Therefore, this study offers a more integrative approach by analyzing the practice of termination via WhatsApp as an industrial relations phenomenon in the digital era through three dimensions at once: the normative, procedural, and workers' welfare dimensions.

Based on this background, this study addresses two main issues: how the practice of employment termination through digital messaging in the case of PT Star Comgistic Indonesia should be assessed from the perspective of Pancasila Industrial Relations (HIP) and its implications for workers' welfare, and how the dispute settlement mechanism pursued in this case conforms to Law Number 2 of 2004 concerning Industrial Relations Dispute Settlement. Accordingly, this study aims to analyze the termination practice from these two perspectives, thereby contributing to a more integrative understanding of employment termination through digital media within the context of industrial relations in the digital era.

LITERATURE REVIEW

Pancasila Industrial Relations (HIP)

Pancasila Industrial Relations (HIP) is a system governing the relationship between workers, employers, and government that is based on the values of Pancasila and the 1945 Constitution. Within this system, industrial relations are not viewed solely as an economic interaction oriented toward productivity, but also as a social relationship that upholds fairness, togetherness, and respect for human dignity. Na'im et al. (2023) explain that HIP emphasizes balanced and fair relations between workers and employers, including consultation and consensus in addressing industrial relations issues. In line with this, Abrori (2023) asserts that HIP positions workers and employers as equal and complementary partners rather than as opposing parties.

The essence of HIP lies in fostering a peaceful working environment and business stability through deliberation to reach consensus (*musyawarah untuk mufakat*). Unlike industrial relations systems built on confrontation, HIP instead emphasizes dialogue as the primary mechanism for managing differences of interest. Conflict is not regarded as something to be avoided entirely, but rather as part of the dynamics that must be managed fairly and with dignity (Sari, 2025). This approach makes HIP not merely a legal system but a value system that seeks a balance between business interests and humanity.

Normatively, HIP has a strong foundation both philosophically and juridically. The values of Pancasila and the 1945 Constitution form the basis that underlies the implementation of industrial relations in Indonesia. This foundation is subsequently elaborated in various labor regulations. Law Number 13 of 2003 concerning Manpower regulates various means of industrial relations, including bipartite and tripartite cooperation institutions and collective labor agreements. Furthermore, Law Number 2 of 2004 concerning Industrial Relations Dispute Settlement prioritizes dispute resolution through bipartite mechanisms and deliberation before other settlement channels are pursued. Ministerial Decree Number 76 of 2024 concerning Guidelines for the Implementation of Pancasila Industrial Relations reaffirms the normative and ethical principles that guide the implementation of industrial relations in Indonesia. However, the decree does not contain specific provisions addressing digital communication channels or the use of instant messaging in industrial relations. Therefore, its relevance to digital communication in this study is interpretive rather than regulatory. The principles of deliberation, mutual cooperation, fairness, and respect for human dignity reflected in the HIP framework provide a normative basis for assessing whether the use of digital media in employment-related decisions remains consistent with the values of HIP. This interpretive approach is particularly relevant in the context of the digital era, where communication technologies have expanded the ways in which employment-related interactions take place and have generated new considerations concerning workers' rights (Ardhany et al., 2024; Noval, 2022).

In its implementation, HIP is built upon several core principles derived from Pancasila values, statutory provisions, and expert thinking on industrial relations in Indonesia. First, the principle of kinship and togetherness positions workers and employers as partners in achieving harmonious industrial relations. Such partnership requires mechanisms that allow the interests, rights, and obligations of the parties to be communicated and addressed collectively. Singalodra et al. (2025) emphasize that collective labor agreements can support harmonious industrial relations by strengthening legal certainty, clarifying the rights and obligations of workers and employers, reducing potential conflicts, and promoting stable relations among employers, workers, and government.

Second, HIP places three principal actors within a complementary tripartite framework. Workers are responsible for maintaining productivity and order at work; employers are responsible for business sustainability as well as workers' welfare; while government functions as regulator, supervisor, and guarantor of fairness for both parties. This balance of roles is key to creating stable and equitable industrial relations (Sari, 2025).

Third, HIP does not stop at the conceptual level but is realized through various operational means. Collective Labor Agreements (*Perjanjian Kerja Bersama/PKB*), Bipartite Cooperation Institutions (*LKS Bipartit*), and Tripartite Cooperation Institutions (*LKS Tripartit*) serve as the primary instruments for building communication and resolving problems internally before they develop into wider conflict. The existence of these means reflects that dialogue and mutual agreement constitute the primary foundation of healthy industrial relations.

Fourth, when disputes cannot be avoided, HIP prioritizes peaceful resolution through dialogue and deliberation. The spirit promoted is not one of winning or losing, but rather how

a solution achieved can maintain the balance of both parties' interests fairly and sustainably. More detailed arrangements concerning dispute settlement mechanisms are further regulated under prevailing laws and regulations.

In this study, HIP is used as a normative analytical tool to assess whether the practice of employment termination that occurred at PT Star Comgistic Indonesia has reflected the fundamental values of industrial relations in Indonesia. This assessment is directed not only at compliance with statutory regulations but also at the application of the principles of fairness, togetherness, deliberation, and respect for workers' dignity as contained within HIP. Thus, the practice of termination through digital media is understood not merely as a procedural matter, but also as an industrial relations phenomenon that needs to be evaluated based on the values forming the foundation of the national industrial relations system (Abrori, 2023).

Industrial Relations Dispute Settlement (Law Number 2 of 2004)

Within Indonesia's industrial relations system, the settlement of disputes between workers and employers is specifically regulated through Law Number 2 of 2004 concerning Industrial Relations Dispute Settlement (PPHI). This law was established as a legal instrument that provides a dispute settlement mechanism carried out in stages, in a structured manner, and prioritizing dialogue between parties before litigation is pursued. Thus, Law Number 2 of 2004 functions not only as a means of dispute resolution but also as an instrument for maintaining harmonious, dynamic, and equitable industrial relations.

In general, this law classifies industrial relations disputes into four types: rights disputes, interest disputes, employment termination disputes, and disputes between labor unions within a single company. In the context of this study, the main focus is on employment termination disputes, as this relates directly to the case being analyzed.

The settlement mechanism regulated under the law is tiered and must be pursued systematically. The first stage is bipartite negotiation, which forms the core of dispute settlement as it serves as the primary means for workers and employers to reach an agreement directly before involving a third party. Adam and Apriliani (2025) assert that bipartite negotiation must be conducted as the first step within a maximum period of 30 working days and determines whether the dispute can be resolved internally or must proceed to the next stage. Therefore, whether or not a bipartite process has taken place becomes an important indicator in assessing the parties' compliance with the dispute settlement mechanism established under the law.

If bipartite negotiation fails to reach an agreement, the dispute may proceed to settlement through a third party, namely mediation, conciliation, or arbitration. Mediation is conducted by a mediator from the authorized government agency, while conciliation and arbitration involve an independent party agreed upon by the parties. Zulfa and Sundary (2023) explain that this non-litigation mechanism is designed to maintain flexibility in settlement while also providing room for the parties to reach an agreement without having to pursue the lengthier and more formalistic court process.

The final stage is settlement through the Industrial Relations Court (*Pengadilan Hubungan Industrial/PHI*), the formal litigation channel authorized to examine and decide disputes that cannot be resolved through the preceding mechanisms. As part of the general judicial system, the PHI functions as the last resort in resolving industrial relations disputes after all non-litigation mechanisms have been pursued (Adam & Apriliani, 2025; Zulfa & Sundary, 2023). Thus, Indonesia's industrial relations dispute settlement system is designed in tiers while still prioritizing dialogue and balanced legal protection for both workers and employers.

Although the dispute settlement mechanism has been comprehensively designed at the

normative level, its implementation in the field does not always run optimally. Wibowo and Herawati (2021) note that in practice companies are still found to carry out terminations without following the established procedures, thereby creating a gap between the applicable legal norm (*das sollen*) and practice in the field (*das sein*). A similar condition was found by Laela (2024), who showed that the effectiveness of dispute settlement is determined not only by the completeness of regulation but also by the parties' compliance and external factors influencing the dispute settlement process. Thus, Law Number 2 of 2004 cannot be assessed solely from a normative standpoint but also from its implementation in industrial relations practice.

In this study, Law Number 2 of 2004 is used as a procedural analytical tool to assess the conformity of the dispute settlement mechanism in the case of PT Star Comgistic Indonesia with prevailing legal provisions. This analysis focuses not only on whether the settlement stages were pursued, but also on the extent to which the process reflects the principles of fairness, legal certainty, and protection of workers' rights within industrial relations.

Workers' Welfare from the Perspective of Pancasila Industrial Relations

From the perspective of HIP, workers' welfare is not understood narrowly as merely the fulfillment of economic needs, but as a condition reflecting a balance between material and non-material aspects of working life. Welfare is an integral part of healthy industrial relations because it is closely related to employment stability, productivity, and business sustainability. Abrori (2023) asserts that workers' welfare within the HIP framework is measured not only by the amount of wages but also by the fulfillment of social security, legal protection, and respect for workers' dignity as human beings.

First, welfare can be understood as an investment in productivity. Yustisio et al. (2023) emphasize that the implementation of Pancasila Industrial Relations principles through company regulations and collective labor agreements is important for establishing harmonious industrial relations and protecting workers' rights. When workers feel secure and valued, productivity and the quality of industrial relations tend to increase. Conversely, the practice of employment termination that is non-transparent or does not follow procedure has the potential to reduce job certainty, a sense of security, and workers' trust in the prevailing industrial relations system (Harmen et al., 2025).

Second, workers' welfare also encompasses supplementary compensation, both material and non-material in nature. Materially, welfare is reflected in health facilities, allowances, bonuses, and social security such as *BPJS Ketenagakerjaan* (Employment Social Security) and *BPJS Kesehatan* (Health Social Security). However, within the HIP perspective, non-material dimensions play an equally important role, such as a sense of security at work, legal certainty, freedom of association, and recognition of workers' dignity. Wibowo and Herawati (2021) emphasize that protection for workers relates not only to the fulfillment of financial rights but also to the prevention of arbitrary treatment that could harm workers psychologically and socially.

Third, welfare within HIP is built upon the principles of fairness and togetherness. Workers are not viewed merely as a factor of production but as individuals possessing rights and dignity that must be respected. Therefore, the results of a company's progress should be enjoyed fairly by all parties in accordance with their respective contributions. Singalodra et al. (2025) emphasize that harmonious industrial relations require clear rights and obligations between workers and employers, supported by collective labor agreements that strengthen legal certainty and reduce potential conflicts among the parties. This principle affirms that company success and workers' welfare are interrelated matters rather than opposing ones, and when this balance is not maintained, industrial relations run the risk of tension that affects overall

organizational stability.

Fourth, workers' welfare is also closely related to legal protection. Indonesia's labor system has established various mechanisms to protect workers from risk, including in respect of employment termination. Rights to severance pay, social security, and access to dispute settlement mechanisms form part of efforts to ensure that workers are not unilaterally harmed. However, Imelda et al. (2026) show that in practice, particularly when companies face financial pressure or when there is a power imbalance between workers and employers, the implementation of such protection is often not optimal even though the legal framework is available.

Thus, welfare from the perspective of Pancasila Industrial Relations can be understood as the meeting point between business sustainability and a decent life for workers, achieved through dialogue, fairness, and legal protection. In this study, the concept of welfare is used as an analytical tool to assess the implications of the practice of employment termination in the case of PT Star Comgistic Indonesia, both in material and non-material aspects. The material aspect covers potential loss of income, severance pay, and social security, while the non-material aspect covers a sense of security at work, legal certainty, fairness, and respect for workers' dignity as human beings (Abrori, 2023; Yustisio et al., 2023).

Conceptual Framework

This study is built on the premise that the practice of employment termination carried out through digital media cannot be assessed from a single point of view, but must be analyzed comprehensively by integrating legal, value-based, and workers' welfare aspects. An approach that focuses solely on formal legality is insufficient to capture the complexity of the issues occurring within industrial relations. The practice of employment termination relates not only to compliance with legal procedure but also to conformity with industrial relations values and its implications for workers' welfare. A framework of analysis is therefore needed that can explain the relationship between the practice that occurred and the normative standards that should apply (Abrori, 2023; Prasetyo et al., 2026).

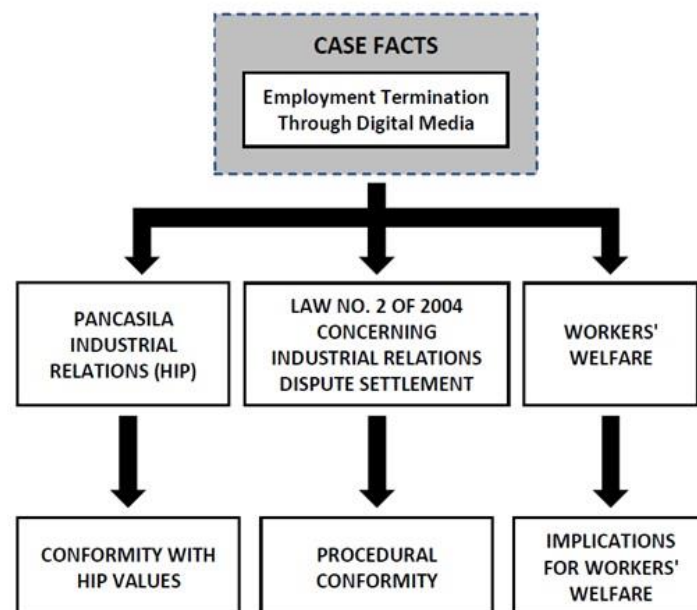


Figure 1. Conceptual Framework

Conceptually, the practice of employment termination through digital messaging is

positioned as the central phenomenon under analysis. This phenomenon is then examined through three complementary analytical tools. The first analytical tool is a juridical approach through Law Number 2 of 2004 concerning Industrial Relations Dispute Settlement, used to assess the procedural aspect, particularly with respect to the industrial relations dispute settlement mechanism. This analysis aims to identify the extent to which the settlement mechanism reflected in the available facts, such as bipartite negotiation and mediation, conforms to the applicable legal provisions.

The second analytical tool rests on the principle of Pancasila Industrial Relations as a tool for assessing the value and ethical aspects of industrial relations practice. In this regard, the practice of termination is examined not only from the standpoint of formal legality but also for its conformity with the principles of deliberation, fairness, togetherness, and respect for workers' dignity. This approach is important because HIP requires that every decision within industrial relations, including termination, reflect values that go beyond mere procedural compliance.

Meanwhile, the third analytical tool employs the concept of workers' welfare to analyze the implications generated by the practice of employment termination. This analysis encompasses two dimensions at once: the material dimension, such as potential loss of income, severance pay, and social security, and the non-material dimension, such as a diminished sense of security at work, uncertainty of rights, and respect for workers' dignity. These two dimensions are viewed as interrelated because together they determine the extent to which workers' welfare can be protected within the industrial relations practice taking place.

Through these three analytical tools, this study produces three main forms of assessment: procedural conformity, conformity with the values of Pancasila Industrial Relations (HIP), and implications for workers' welfare. These three aspects are used in an integrated manner to provide a more complete picture of the practice of employment termination within the context of industrial relations in the digital era. Thus, this study assesses not only whether the practice of termination conformed to legal procedure, but also whether the practice was consistent with the values of Pancasila Industrial Relations that should underpin the industrial relations dispute settlement system, and what implications the practice had for workers' welfare as a fundamental dimension of industrial relations (Harianto, 2024; Abrori, 2023).

RESEARCH METHOD

This study employs a normative juridical approach to analyze the phenomenon of employment termination occurring within the context of industrial relations. Charda (2021) explains that normative legal research involves the study of legal rules, legal principles, and legal doctrines to address legal issues. This approach was chosen because the study focuses on examining the conformity between the practice that occurred and the applicable legal norms and values, rather than on the collection of empirical field data. In addition to using the statute approach, this study also draws on the case of PT Star Comgistic Indonesia as an object of study to analyze the conformity of the employment termination practice with the applicable legal norms and industrial relations principles. The use of online media reports in this study is not intended as a means of empirical proof, but rather as a source of information used to describe the chronology of the case, which is subsequently analyzed normatively.

The selection of the PT Star Comgistic Indonesia case is based on the consideration that the practice of employment termination through digital media is an actual phenomenon that raises issues not only in legal terms but also with respect to industrial relations values and workers' welfare. Thus, this case is considered relevant as a means of evaluating the application of legal norms while also identifying potential gaps between the legal norm that should apply

(das sollen) and actual practice (das sein).

The data sources in this study consist of three types of legal materials. First, primary legal materials in the form of relevant laws and regulations, comprising Law Number 13 of 2003 concerning Manpower, Law Number 2 of 2004 concerning Industrial Relations Dispute Settlement, Law Number 21 of 2000 concerning Labor Unions, and Decree of the Minister of Manpower of the Republic of Indonesia Number 76 of 2024 concerning Guidelines for the Implementation of Pancasila Industrial Relations. Second, secondary legal materials in the form of academic literature, including scientific journals, labor law textbooks, and prior relevant research. Third, supporting information sources in the form of news articles from online media used to describe the chronology of the case, particularly the Liputan6.com report dated 3 April 2026 concerning the PT Star Comgistic Indonesia case. This study does not use primary data such as interviews or field observation, as the analytical focus lies in the normative examination of available written sources.

The analytical technique employed is qualitative analysis using systematic interpretation of the applicable legal norms and principles. The analysis is conducted through a sequential process. First, the applicable legal norms and relevant Pancasila Industrial Relations principles are identified based on the primary and secondary legal materials. Second, the chronology of the case is established from the available written sources, particularly the reported facts concerning the employment termination practice. Third, the relevant legal and industrial relations issues arising from the case are identified and categorized. Fourth, the reported facts are examined against the applicable legal norms and principles. Fifth, drawing on Charda's (2021) typology of normative legal analysis, the normative requirements (das sollen) are compared with the actual practice reflected in the available sources (das sein) to identify conformity, non-conformity, or potential inconsistency. Sixth, the findings are interpreted according to the three analytical dimensions of this study: Pancasila Industrial Relations as a value-based analytical tool, Law Number 2 of 2004 as a procedural analytical tool, and workers' welfare as an analytical tool for assessing the implications of the termination practice. Finally, the findings are synthesized to explain the relationship between the termination practice, the applicable normative framework, and its implications for industrial relations and workers' welfare.

RESULTS AND DISCUSSION

Chronology and Description of the Case

The employment termination case that is the focus of this study occurred at PT Star Comgistic Indonesia, located in Parungkuda Subdistrict, Sukabumi Regency, West Java (Liputan6, 2026). This event took place in April 2026, coinciding with the Eid al-Fitr leave period being undertaken by the workers.

Based on online media reports, the company terminated the employment of approximately 80 permanent workers. The termination notification was conveyed via WhatsApp message received by workers while they were on Eid al-Fitr leave. According to reported information, the decision was conveyed without any direct meeting between the company and the workers prior to the notification being received. This condition drew scrutiny to the termination process because of the use of digital media as a means of conveying a decision that directly affected the workers' employment status.

The company stated that the termination decision was taken as an efficiency measure due to a decline in the number of production orders. However, according to information conveyed by the labor union, contract workers and outsourced workers were still retained and the company's operational activities remained ongoing. This difference of view regarding the

reason for and implementation of the termination subsequently became one of the central issues in the case.

Affected workers raised objections to the manner in which the termination was carried out. These objections were subsequently facilitated by the labor union, in this case the Sukabumi Regency branch of the *Gabungan Serikat Buruh Indonesia (GSBI)*. Union representatives stated that the termination process was carried out without transparency and did not follow the communication mechanism that should have been used.

In subsequent developments, this case received attention from the local Manpower and Transmigration Office (*Disnakertrans*). According to reported information, efforts to settle the dispute have been undertaken through a mediation process involving labor authorities at both the regency and provincial levels, but have not yet produced an agreement acceptable to the parties. This condition indicates that the dispute concerns not only the termination decision itself, but also the effectiveness of the available dispute settlement mechanism within the industrial relations system.

Thus, this case involves three principal actors within industrial relations: workers as the directly affected party, the company as the party making the termination decision, and government, through *Disnakertrans*, as the party facilitating the dispute settlement process (Liputan6, 2026). Based on this chronology, the PT Star Comgistic Indonesia case raises questions not only concerning the legality of the termination procedure but also concerning the conformity of the practice with the values of Pancasila Industrial Relations and its implications for workers' welfare. This case is therefore relevant for analysis from an integrated normative, procedural, and welfare-based perspective.

Analysis Based on the Principle of Pancasila Industrial Relations

Based on the chronology described above, the practice of employment termination via WhatsApp message at PT Star Comgistic Indonesia indicates an issue in the application of the values of Pancasila Industrial Relations. Prasetyo et al. (2026) note that the gap between the norm that should apply and practice in the field remains a problem within Indonesia's labor system. In this context, the PT Star Comgistic Indonesia case can be regarded as an example illustrating potential inconsistency between industrial relations practice and the values forming the foundation of HIP, particularly regarding the principles of deliberation, respect for workers' dignity, and togetherness in employment relations.

First, from the aspect of deliberation, based on the information available in media reports and the sources used, no information was found concerning any process of dialogue or negotiation prior to the termination decision being conveyed to workers. This condition indicates a potential inconsistency with the principle of deliberation, which forms the primary foundation of Pancasila Industrial Relations. Within the HIP framework, deliberation is the primary mechanism for resolving differences of interest between workers and employers, including when a company faces conditions that may lead to employment termination (Abrori, 2023). This is consistent with the view of Sari (2025), who emphasizes the importance of open communication and equal dialogue as prerequisites for harmonious industrial relations. Thus, the absence of information concerning a negotiation process in this case indicates that the principle of deliberation does not appear to have been optimally implemented.

Second, from the aspect of respect for workers' dignity, conveying the termination decision through a short message reflects a fundamental issue in industrial relations ethics. From the HIP perspective, workers are regarded as human beings possessing dignity, such that any policy with a significant impact on their lives should be conveyed properly and humanely (Abrori, 2023). Sasikirana and Damayanti (2025) emphasize that terminating employment through an informal channel such as WhatsApp, without adherence to formal procedural

safeguards, raises concerns regarding the legal validity of the termination itself. The use of digital media to convey termination without direct interaction, particularly while workers were on Eid al-Fitr leave, can be regarded as a practice with the potential to diminish the humanitarian dimension that forms one of the foundations of Pancasila Industrial Relations. The manner in which the decision was conveyed in this case is therefore relevant for evaluation not only from a procedural standpoint, but also from the perspective of respect for workers' dignity.

Third, regarding the principle of togetherness and partnership, the termination decision, which based on available information was taken without worker involvement in the decision-making process, indicates a potential imbalance in the relationship between workers and employers. HIP positions both parties as strategic partners with a shared interest in business sustainability, such that every policy should ideally involve the participation of both parties. Singalodra et al. (2025) emphasize that harmonious industrial relations require clear rights and obligations between workers and employers, supported by mechanisms that facilitate cooperation and reduce potential conflicts among the parties. Sari (2025) adds that failure to build participatory communication is often a primary trigger of industrial relations conflict. In this case, no effort appears to have been made to involve workers in the decision-making process or in seeking alternative solutions prior to the termination.

Furthermore, the information that contract workers and outsourced workers were still retained amid the stated reason for efficiency raises questions regarding the application of the principle of fairness within industrial relations. From the HIP perspective, every company policy should consider a balance between business efficiency and the protection of workers. Wibowo and Herawati (2021) assert that termination not accompanied by a proportional reason and a fair procedure has the potential to conflict with the principle of worker protection within Indonesia's labor system. Therefore, the discrepancy between the efficiency rationale stated by the company and the information circulating in the field is an aspect that warrants further scrutiny in assessing the conformity of the practice with HIP values.

Thus, the practice of employment termination in the PT Star Comgistic Indonesia case indicates potential inconsistency with the fundamental values of Pancasila Industrial Relations. This indication is apparent from the absence of a deliberation process prior to the termination decision being conveyed, the use of digital media as a means of conveying a decision with a direct impact on workers' status, and the suboptimal application of the principle of togetherness in the decision-making process. Prasetyo et al. (2026) assert that as long as labor supervision remains unstrengthened and employers' legal understanding remains unimproved, the gap between norms and industrial relations practice will continue to pose a challenge within Indonesia's labor system.

Analysis of Implications for Workers' Welfare

From the perspective of Pancasila Industrial Relations, workers' welfare is not narrowly understood as an economic matter but also encompasses non-material dimensions such as a sense of security, legal certainty, and respect for human dignity. Therefore, the practice of employment termination through digital media cannot be regarded merely as an administrative event, but as a condition with the potential to affect workers' welfare more broadly. Na'im et al. (2023) argue that when the principles of justice, equality, and mutual cooperation underlying HIP are not upheld in practice, industrial relations risk falling into imbalance that disadvantages workers. When workers' welfare is disrupted, the overall balance of industrial relations is also at risk of disruption.

From the material side, the practice of termination carried out abruptly and, based on available information, not preceded by a clear negotiation mechanism has the potential to create

uncertainty regarding the fulfilment of workers' normative rights. Under Article 156 of Law Number 13 of 2003 concerning Manpower, workers affected by termination are entitled to severance pay, service award pay, and compensation, the amounts of which are determined based on length of service. If termination procedures are not properly followed, there is a risk that these financial rights are not be optimally fulfilled. Wibowo and Herawati (2021) emphasize that non-compliance with termination procedures often has implications for the hindrance of workers' rights, leaving workers in a more vulnerable position upon losing their main source of income.

Nevertheless, an equally important implication is evident in the non-material aspect. Conveying termination via short message, particularly while workers were on Eid al-Fitr leave, has the potential to diminish their sense of security, create uncertainty regarding future employment, and affect workers' perception of respect for their dignity within the employment relationship. From the HIP perspective, workers' dignity is an inseparable part of the concept of welfare. Abrori (2023) asserts that workers must be treated as human beings possessing dignity, not merely as a factor of production that can be discarded once deemed no longer needed. Sasikirana and Damayanti (2025) note that when termination is conveyed without formal legal procedure, workers are left in a prolonged state of uncertainty regarding the recognition and protection of their rights. Therefore, the manner in which a termination decision is conveyed is an important part of assessing the extent to which workers' welfare remains respected within industrial relations practice.

Harmen et al. (2025) show that employment uncertainty and treatment perceived as unfair within an employment relationship can affect workers' welfare conditions more broadly, both economically and non-economically. These findings indicate that termination practices not accompanied by adequate communication have the potential to reduce workers' sense of security and trust in the prevailing industrial relations system.

Furthermore, from the aspect of legal protection, termination practices that do not follow a clear mechanism can also limit workers' access to their rights. Within the industrial relations system, workers' welfare depends not only on economic conditions but also on the availability of effective legal protection guarantees. Imelda et al. (2026) highlights that an imbalance of position between workers and employers makes it difficult for workers to fight for their rights, particularly when procedures are not carried out transparently. In the PT Star Comgistic Indonesia case, the absence of formal notification and of a bipartite process that should have been directly pursued has the potential to weaken workers' position in claiming their normative rights, including the right to fair compensation as mandated by law.

Thus, from the perspective of Pancasila Industrial Relations, the practice of employment termination in the PT Star Comgistic Indonesia case has the potential to give rise to implications for workers' welfare, both material and non-material. These implications are evident in the potential uncertainty regarding the fulfillment of workers' normative rights, the diminished sense of security at work, and the questions raised regarding respect for workers' dignity within the industrial relations process. This shows that termination cannot be understood merely as the end of an employment relationship, but also as an event capable of affecting the balance of workers' welfare more broadly (Abrori, 2023; Sasikirana & Damayanti, 2025).

Analysis of the Dispute Settlement Mechanism Under Law Number 2 of 2004

Within Indonesia's industrial relations system, every employment termination dispute must be addressed through a tiered mechanism in accordance with Law Number 2 of 2004. Based on the chronology of the PT Star Comgistic Indonesia case, this analysis aims to answer three key questions: whether bipartite negotiation was pursued as required, whether mediation

was conducted effectively, and whether the overall termination process complied with applicable legal procedure.

First, regarding bipartite negotiation, based on available information, no indication was found that this stage was pursued prior to the termination decision being conveyed to workers. In fact, Article 3 of Law Number 2 of 2004 requires bipartite negotiation as the initial step in every industrial relations dispute, within a maximum period of 30 working days. Adam and Apriliani (2025) assert that bipartite negotiation is not merely an administrative formality but a legal obligation reflecting the principle of deliberation within industrial relations. In line with this, Zulfa and Sundry (2023) state that dispute settlement not preceded by bipartite negotiation has the potential to reduce the effectiveness of legal protection for both workers and employers. Therefore, the absence of information regarding the implementation of bipartite negotiation in this case indicates a potential inconsistency with the provisions of Article 3 of Law Number 2 of 2004, which still requires further examination through the available dispute settlement mechanism.

Second, regarding mediation, settlement efforts through the Manpower and Transmigration Office (*Disnakertrans*) have been pursued at both the regency and provincial levels. This indicates that the dispute settlement process has entered the mediation stage as regulated under Law Number 2 of 2004. However, mediation was conducted, based on available information, after the termination decision had already been conveyed to workers, meaning it functioned more as a means of resolving the dispute after the conflict occurred rather than as an instrument of conflict prevention. Zulfa and Sundry (2023) explain that the effectiveness of mediation is greatly influenced by the good faith of the parties and the quality of facilitation provided by the mediator. The fact that mediation has not yet produced an agreement indicates that this dispute still has the potential to proceed to the Industrial Relations Court (PHI) in accordance with the mechanism regulated under applicable law (Adam & Apriliani, 2025).

Third, from the aspect of procedural conformity, the termination practice in this case raises a number of questions regarding the application of the mechanism regulated under applicable law. First, conveying the termination decision via WhatsApp message raises questions not because the use of digital media is, by itself, prohibited under Law Number 2 of 2004, but because the manner of communication must be considered in relation to the procedural requirements governing employment termination and industrial relations disputes. Sasikirana and Damayanti (2025) explain that unilateral termination communicated through WhatsApp raises legal issues concerning the protection of workers' rights and the validity of the termination process. Second, the absence of information regarding the implementation of bipartite negotiation prior to the termination decision being conveyed indicates a potential inconsistency with the dispute settlement stages regulated under Law Number 2 of 2004. Prasetyo et al. (2026) show that the gap between applicable legal provisions (*das sollen*) and practice in the field (*das sein*) remains an issue within Indonesian industrial relations. Findings by Laela (2024) likewise show that low compliance with procedure is often a factor that hinders the achievement of effective and equitable dispute settlement.

Based on the overall analysis, the termination practice in the PT Star Comgistic Indonesia case indicates a potential inconsistency with the dispute settlement mechanism regulated under Law Number 2 of 2004. This indication is apparent from the absence of information regarding the implementation of bipartite negotiation prior to the termination decision being conveyed, the use of digital media as a means of conveying a decision that raises questions regarding procedural conformity, and the fact that no agreement has yet been reached through the mediation process pursued. Thus, this case demonstrates a gap between the legal norms that should apply and the practice occurring in the field, such that further settlement through

available legal mechanisms, including the Industrial Relations Court (PHI), remains an option available to the parties (Adam & Apriliani, 2025; Prasetyo et al., 2026; Ndun et al., 2020).

CONCLUSION

The normative analysis indicates that employment termination in the digital era should not be assessed solely according to the medium used to communicate the decision, but according to the legal procedures, industrial relations principles, and protection of workers' rights that govern the substance and process of termination. The PT Star Comgistic Indonesia case demonstrates that the use of digital communication can expose gaps between the formal legal framework and its application in practice, particularly when digital communication is used without adequate procedural safeguards and meaningful dialogue.

From a broader policy and legal perspective, the case indicates that the digital transformation of industrial relations requires the existing legal framework to be applied together with the normative values of Pancasila Industrial Relations. Harianto (2024) emphasizes the importance of aligning industrial relations dispute settlement with the principles of Pancasila Industrial Relations, indicating that legal mechanisms should not be separated from the values of deliberation, fairness, and harmonious relations. In the digital era, this perspective becomes increasingly relevant because the adoption of digital communication channels creates new forms of interaction without necessarily changing the legal and ethical responsibilities of the parties involved.

Accordingly, the broader implication for industrial relations policy in Indonesia is that digital communication should function within, rather than outside, the existing legal and industrial relations framework. Its use in employment termination therefore needs to remain subject to the principles of procedural fairness, legal certainty, meaningful dialogue, and protection of workers' rights and dignity. This approach can help ensure that digitalization strengthens the efficiency of industrial relations communication without undermining the foundational values of the Indonesian industrial relations system.

This study has limitations arising from its reliance on secondary data, particularly media reports and legal and academic literature. The absence of primary empirical data, such as interviews or field observations, means that the findings are limited to normative analysis of the available written sources and cannot capture the perspectives or experiences of the parties directly involved. Nevertheless, the approach remains appropriate for examining the conformity of the reported practice with applicable legal norms and industrial relations values.

RECOMMENDATIONS

Based on the research findings, several recommendations may be proposed to the parties involved, as follows.

First, in the context of the ongoing case settlement, the parties need to pursue a dispute settlement mechanism in accordance with applicable legal provisions. Given that the mediation process undertaken has not yet resulted in an agreement, the parties may consider utilizing the legal mechanisms still available, including the Industrial Relations Court (PHI), in order to obtain a settlement that provides legal certainty and protection of the rights in dispute (Adam & Apriliani, 2025).

Second, for workers and labor unions, an improved understanding of normative rights within employment relationships is needed, particularly regarding termination procedures and dispute settlement mechanisms. Adequate understanding of these rights will enable workers and labor unions to take appropriate steps and fight for their rights more effectively when facing

industrial relations problems (Wibowo & Herawati, 2021).

Third, for companies, it is important to ensure that every labor policy, including termination, is implemented not only in accordance with applicable legal provisions but also with due regard to ethics and respect for workers' dignity as part of the principle of Pancasila Industrial Relations. Compliance with procedure is not merely a legal obligation but also an investment in maintaining a conducive and sustainable industrial relations climate (Abrori, 2023).

Fourth, for government, particularly through labor authorities, a strengthening of proactive supervisory functions and improved mediation effectiveness is needed so that dispute settlement mechanisms can function more optimally. In addition, developments in digital technology within employment relationships need to be responded to through the strengthening of guidelines and supervision of labor communication practices, including in the conveyance of decisions that affect employment status. Sari (2025) asserts that the role of government as a neutral and active supervisor is key to preventing protracted industrial relations conflict. Prasetyo et al. (2026) add that structural reform within the industrial relations system can only be realized if government not only creates regulation but also ensures consistent compliance with it in the field.

Fifth, for future researchers, empirical studies involving workers, employers, and labor authorities are needed to obtain a deeper understanding of the practice of termination through digital media and its implications for industrial relations in Indonesia. Such empirical studies could complement the normative approach used in this study, thereby producing a more comprehensive picture of the phenomenon of industrial relations in the digital era.

REFERENCES

- Abrori, M. I. (2023). Implementasi Hubungan Industrial Pancasila terhadap kesejahteraan pekerja perspektif hukum ketenagakerjaan. *Legal Studies Journal*, 3(1), 48–55. <https://doi.org/10.33650/lstj.v3i1.9952>
- Adam, D. P., & Apriliani, K. (2025). Sistem penyelesaian sengketa hubungan kerja antara pekerja dan pengusaha berdasarkan ketentuan UU No. 2 Tahun 2004. *Yusthima*, 5(2), 427–436. <https://doi.org/10.36733/yusthima.v5i02.12715>
- Ardhany, Y., Fauzy, E., & Zubarita, F. R. (2024). Implementation of the right to disconnect and workers' rights in Indonesia. *Lex Renaissance*, 8(2), 326–345. <https://doi.org/10.20885/JLR.vol8.iss2.art8>
- Charda, U. (2021). Typology of legal research methods in normative and sociological thinking. *Fox Justi: Jurnal Ilmu Hukum*, 12(1), 113–120. <https://doi.org/10.58471/justi.v12i1.769>
- Hariato, A. (2024). Paradigmatic problems of industrial relation dispute settlement on the perspective of Pancasila Industrial Relations. *Journal of Law and Legal Reform*, 5(1), 201–236. <https://doi.org/10.15294/jllr.vol5i1.2102>
- Harmen, H., Tampubolon, J. F., Saputri, K. K., Sitorus, L., Hidayanti, N., Hutapea, N. A., & Azalia, S. S. (2025). Analisis dampak pemutusan hubungan kerja (PHK) terhadap karyawan dan organisasi: Studi kasus PT Sritex. *Jurnal Review Pendidikan dan Pengajaran*, 8(1), 3582–3588. <https://doi.org/10.31004/jrpp.v8i1.44061>
- Imelda, B., Devy, O. A., Galluh, R. A., Pramono, H. E., & Putra, T. H. (2026). Kajian yuridis implikasi PHK massal PT Sri Rejeki Isman Tbk terhadap hak dan kewajiban pekerja. *Journal of Innovative and Creativity (JOECY)*, 6(1), 57–69.

<https://doi.org/10.31004/joecy.v6i1.6684>

- Laela, S. (2024). Penyelesaian perselisihan hubungan industrial karena pemutusan hubungan kerja oleh tenaga kerja asing (studi putusan nomor 038K/PDT.SUS/2011). *IBLAM Law Review*, 4(3), 211–220. <https://doi.org/10.52249/ilr.v4i2.399>
- Liputan6. (2026, April 6). *Puluhan buruh di Sukabumi di-PHK lewat pesan singkat saat cuti Lebaran*. <https://www.liputan6.com/regional/read/6309614/puluhan-buruh-di-sukabumi-di-phk-lewat-pesan-singkat-saat-cuti-lebaran>
- Na'im, L. O. A., Amrullah, R., Aswandi, & Chandra, M. (2023). Penerapan sistem Hubungan Industrial Pancasila dalam menyelesaikan perselisihan perburuhan di Indonesia. *Jurnal Ilmu Komunikasi dan Sosial Politik*, 1(2), 192–203. <https://doi.org/10.62379/jiksp.v1i2.385>
- Ndun, I., Helan, Y. G. T., & Pekuwal, U. L. (2020). The absolute competence of the Industrial Relations Court in resolving employment termination disputes. *Journal of Indonesian Legal Studies*, 5(1), 29–52. <https://doi.org/10.15294/jils.v5i1.33159>
- Noval, S. M. R. (2022). Evolusi hak pekerja di era digital: Prawacana right to disconnect di Indonesia. *Jurnal Bina Mulia Hukum*, 6(2), 234–253. <https://doi.org/10.23920/jbmh.v6i2.637>
- Prasetyo, A. N., Azzahrani, S. A., & Hapsari, F. T. (2026). Analisis yuridis PHK karyawan CNN Indonesia: Tinjauan kebebasan berserikat dan dugaan praktik union busting. *Adagium: Jurnal Ilmiah Hukum*, 4(1), 55–65. <https://doi.org/10.70308/adagium.v4i1.264>
- Sari, I. (2025). Peran hubungan industrial dalam mengurangi konflik tenaga kerja. *Jurnal Ilmiah M-Progress*, 15(2), 295–308. <https://doi.org/10.35968/mpu.v15i2.1472>
- Sasikirana, A. D., & Damayanti, R. (2025). Akibat hukum terhadap keabsahan PHK sepihak melalui media komunikasi digital (WhatsApp) dalam perspektif hukum ketenagakerjaan. *IPMHI Law Journal*, 5(1), 1–16. <https://doi.org/10.15294/ipmhi.v5i1.84391>
- Singalodra, N., Suartini, S., & Rifai, A. (2025). Analysis of the benefits of collective labor agreements (CLA) in establishing harmonious industrial relations between employers, workers, and the government. *Business Economic, Communication, and Social Sciences Journal*, 7(3), 397–404. <https://doi.org/10.21512/becossjournal.v7i3.13629>
- Wibowo, R. F., & Herawati, R. (2021). Perlindungan bagi pekerja atas tindakan pemutusan hubungan kerja (PHK) secara sepihak. *Jurnal Pembangunan Hukum Indonesia*, 3(1), 109–120. <https://doi.org/10.14710/jphi.v3i1.109-120>
- Yustisio, B. B., Sinaga, N. A., & Sujono, S. (2023). Arrangement and implementation of Pancasila Industrial Relations in company regulations and collective labor agreements. *Jurnal Hukum Sehasen*, 9(2), 121–132. <https://doi.org/10.37676/jhs.v9i2.4661>
- Zulfa, Z. R., & Sundary, R. I. (2023). Penyelesaian perselisihan hubungan industrial melalui non litigasi pada PT. B Karawang dihubungkan dengan UU No. 2 Tahun 2004 PPHI Jo UU No. 13 Tahun 2003 tentang Ketenagakerjaan. *Bandung Conference Series: Law Studies*, 3(2), 954–958. <https://doi.org/10.29313/bcsls.v3i2.7274>

MOBILE DEVICE USAGE, EMPLOYER EXPECTATIONS, AND WORK-LIFE CONFLICT IN AN INDONESIAN NGO

Yedija C. William Margono^{1)*}, Yohana F. Cahya Palupi Meilani²⁾

^{1,2)}*Faculty of Economics and Business, Universitas Pelita Harapan, Indonesia*

e-mail: walexanderm07@gmail.com
(Corresponding Author indicated by an asterisk *)

ABSTRACT

This study examines how mobile device usage relates to productivity, employer expectations and work-life conflict among employees of an international non-governmental organization (NGO X) in South Jakarta, Indonesia. Drawing on work/family border theory and the job demands–resources model, it disaggregates usage into work-related usage at work, work-related usage at home, and personal usage at work, and positions productivity and employer expectations as competing mediators. A cross-sectional census of all 160 full-time employees was conducted between March and May 2024 and analysed with PLS-SEM in SmartPLS 4. Of eleven hypothesised paths, four were supported. Work-related usage at home was positively associated with both productivity and employer expectations; personal usage at work was negatively associated with employer expectations; and employer expectations were very strongly associated with work-life conflict, the model accounting for 80.7% of its variance. Work-related usage at work was associated with neither mediator, job satisfaction was not associated with productivity, and productivity was not associated with employer expectations. Three paths were significant in the direction opposite to that hypothesised: personal usage at work related positively to productivity, flexibility in work structure related negatively to employer expectations, and work-related usage at home related weakly negatively to work-life conflict. Formal mediation testing showed that every significant indirect path ran through employer expectations and none through productivity. Because the design is cross-sectional, these results identify an associational structure rather than a causal one.

Keywords: : Employer Expectations; Availability Norms; Competing Mediation; Work-Life Conflict; Disaggregated Mobile Device Usage; Work/Family Border Theory; Non-Governmental Organization; Indonesia

INTRODUCTION

Globalization has been driven to a substantial degree by advances in information and communication technology, and among these advances the mobile device occupies a uniquely intimate position. Where internet access was once tethered to a desktop terminal, smartphones, tablets and laptops have made connectivity continuous and portable. Cascio and Montealegre (2016) observe that these devices allow employees to draft, store and transmit documents without paper, compressing tasks that once required physical movement between desks into a few seconds of screen time. Varghese and Kumari (2018) similarly report that messaging applications such as WhatsApp and Telegram raise the overall productivity of employees in the workplace by removing friction from document exchange. Communication, as Blakeman (2023) notes, is a foundational business process; it sustains relationships among colleagues and with internal and external stakeholders, and it underpins the accuracy and timeliness of strategic decisions.

Indonesia offers a particularly vivid setting in which to examine the consequences of this shift. Against a population of approximately 276.4 million people, industry data record roughly 353.8 million cellular mobile connections, implying that a large share of the population operates more than one device; some 212.9 million Indonesians have internet access and 60.4% of the population are active social media users (We Are Social & Meltwater, 2023). The population has, in effect, migrated from voice calls and text messages toward always-on social platforms.

The same portability, however, dissolves the boundary it was meant to bridge. Work-life conflict arises when the demands of work interfere with the demands of personal life (Huo & Jiang, 2023), and it is commonly attributed to long working hours, inflexible schedules, rising job demands and insufficient support at home or at work. Mazmanian et al. (2013) describe the resulting autonomy paradox: the very devices that grant employees freedom over where and when they work also generate an expectation of perpetual availability. Wright et al. (2014) find that work-related communication outside normal hours is associated with higher stress and reduced quality of family life, while French et al. (2015) trace the path from sustained job stress to burnout and its attendant physical and psychological costs.

The organizational setting of this study is NGO X, an international independent research organization based in Indonesia that works with governments, businesses, multilateral institutions and civil society groups on Forest and Other Land Use, Climate, Energy, Cities and Transportation, and the Ocean. Non-governmental organizations of this kind are no longer peripheral actors. Anheier (2014) documents how thoroughly the term has entered ordinary usage, and Banks et al. (2015) describe the expansion of NGO activity from basic service delivery and advocacy into emergency response, conflict resolution, policy analysis and research. Within NGO X, project deadlines and a proposal-driven work culture place a premium on responsiveness: employees are expected to reply to project teams and to produce or submit documents at short notice, and mobile device usage is correspondingly intense. A preliminary single-question survey conducted by the author within NGO X asked thirty employees whether they experienced work-life conflict in the organization. Twenty-eight answered yes and two answered no, indicating that 93.3% of those approached perceived such conflict. This figure motivated the present study.

Two prior studies frame the research. Brown and Palvia (2015) surveyed 325 respondents, of whom 165 responses were usable, and examined mobile device usage, productivity, employer expectations, flexibility in work structure and work-life conflict. Their central finding was that employer expectations rise because of home-based work usage, enhanced productivity and greater flexibility, and that both home usage for work and elevated

employer expectations contribute to work-life conflict. Senyametor et al. (2019) surveyed 217 basic school teachers in the Asante Akim South District of Ghana and reported a positive correlation between teacher job satisfaction and productivity. The present study takes the instrument of Brown and Palvia (2015) as a base without importing their results, adds the job satisfaction pathway of Senyametor et al. (2019), and re-estimates the combined model in an Indonesian non-governmental organization almost a decade later.

The gap addressed here is narrower and more specific than a general shortage of studies, and it has three components.

First, on construct specification. The meta-analytic evidence establishes that after-hours work-related technology use is positively associated with work-family conflict (Santos et al., 2023), but it does so by treating usage as a single undifferentiated behaviour. Blake et al. (2024) confirm that across twenty-three primary studies only two distinguished the functional from the perceptual aspects of use, and none partitioned usage simultaneously by location and by purpose. Border theory predicts that crossings in opposite directions carry opposite consequences; that prediction has not been tested against a model that can represent both directions at once.

Second, on mechanism. Blake et al. (2024) identify only two mediators tested anywhere in that literature — psychological detachment from work, and communication with a supervisor about family demands — and employer expectations enters their synthesis only as a moderator, never as the quantity transmitted. Whether device usage reaches conflict through a demand path or through a resource path therefore remains open, because existing designs do not estimate the two paths simultaneously and so cannot adjudicate between them.

Third, on context. The twenty-three studies reviewed by Blake et al. (2024) span nine countries, none of them Indonesian, and were conducted in commercial, construction, accounting and telecommunications settings. Mission-driven organizations, in which donor timetables set deadlines and commitment to the mission may itself sustain availability norms, are absent from the evidence base. Every included study also used convenience sampling, so none reports a complete enumeration of a defined workforce.

The objectives of this study follow directly: to determine whether work-related usage at work and at home, and personal usage at work, are related to productivity and to employer expectations; to determine whether job satisfaction is related to productivity and whether productivity and flexibility in work structure are related to employer expectations; and to determine whether home-based work usage and employer expectations are related to work-life conflict.

The novelty of this paper accordingly lies in three linked moves. It partitions mobile device usage by location and by purpose as border theory requires rather than treating it as one behaviour; it specifies productivity and employer expectations as competing mediators so that the demand path and the resource path are tested against each other rather than assumed; and it estimates the resulting model on a complete enumeration of the full-time workforce of an Indonesian non-governmental organization. To the author's knowledge this combination of disaggregated specification, competing-mediator design and mission-driven Southeast Asian setting has not previously been reported, and it is what allows the paper to identify which of the two candidate mechanisms actually carries the association.

LITERATURE REVIEW

Work-Life Balance, Work-Life Conflict and Mobile Device Usage

Work-life balance denotes the equilibrium between personal life and professional responsibility, and rests on time management, boundary setting, stress management and

flexibility in work structure (Wood et al., 2020). Haddon (2011) defines it as the ability of an individual to meet both work and family commitments, and argues that failure to achieve balance carries direct personal costs, of which burnout is the most visible (French et al., 2015). Work-life conflict is the corresponding failure state. Anwar and Shahzad (2011) trace its emergence as a global phenomenon to the early 1990s, when mothers entering paid employment encountered incompatible demands from work and household. Yun et al. (2012) characterise it as inter-role conflict in which the boundary between work and life is blurred and one domain is prioritised at the expense of the other. Turel et al. (2011) show that addiction to organizational pervasive technologies produces family- and work-related consequences of precisely this kind.

Mobile device usage is not a homogeneous behaviour. Brown and Palvia (2015) classify it into utilitarian, hedonic and social behaviours. Utilitarian usage is goal-oriented and directed at efficiency and task completion (Scarpi, 2005); it divides further into work-related usage, which serves organizational productivity, and personal utilitarian usage such as mobile banking. Hedonic usage is undertaken for pleasure, entertainment and relaxation (Schroeder, 2010), and social usage serves connection and relationship maintenance. This taxonomy matters analytically because it predicts that the same device will produce different outcomes depending on the purpose and location of use. The present study accordingly separates three usage constructs: work-related usage while at work (WAW), work-related usage while at home (WAH) and personal usage while at work (PAW).

Mobile Device Usage and Productivity

Productivity is the efficiency with which goods and services are produced in a given period (Dessler, 2015) and, more precisely, a measure of production efficiency that concerns the quality as well as the quantity of work performed (Yadav & Marwah, 2015). The Bureau of Labor Statistics (2021) identifies it as the fundamental driver of real income growth. Brynjolfsson and McAfee (2014) argue that the integration of advanced mobile devices, artificial intelligence and machine learning has allowed organizations to operate far more efficiently, and the McKinsey Global Institute (2017) estimates that digitalization can raise organizational productivity growth by 1.4 percent annually. At the individual level, Lu, Yueh and Lin (2015) find that mobile device usage supports employee work by enabling immediate client service, and Dessler (2015) reports that mobile-enabled telecommuting raises job satisfaction and productivity.

Where the device is used for purposes unrelated to work, the expected effect reverses. Pitichat (2013) documents how smartphone use in the workplace can become addictive and divert attention from work-related tasks, reducing focus and output. Organizations cannot fully prevent personal access to privately owned devices. These arguments yield the first set of hypotheses.

H1a: Mobile device usage (work-related while at work) will be positively related to productivity.

H2a: Mobile device usage (work-related while at home) will be positively related to productivity.

H3a: Mobile device usage (personal usage while at work) will be negatively related to productivity.

Mobile Device Usage and Employer Expectations

Employer expectations are the standards of behaviour and output that an organization sets for its employees, spanning job performance, professional conduct, policy compliance and teamwork. Lotko et al. (2015) show that employers frequently expect attributes such as

integrity, adaptability and diligence to be present on arrival rather than developed in post and expect substantial effort to be delivered within short timeframes. Mazmanian et al. (2004), in their study of ubiquitous wireless e-mail devices, found that the accessibility these devices afford creates a favourable impression of responsiveness while simultaneously raising the expectation that employees are reachable at any time and place. Yun et al. (2012) report survey evidence that a substantial proportion of employees monitor work e-mail outside working hours anticipating tasks from superiors. Because work-related documents are always at hand, employers may come to expect that tasks can be performed on the move or alongside personal activity.

Personal usage during working hours points in the opposite direction. Wright et al. (2011) argue that the overuse of personal devices erodes employer trust, since employers expect professionalism and sustained concentration during working hours, and Demerouti et al. (2014) note the additional security concern that personal devices are not secured to organizational standards. Accordingly:

H1b: Mobile device usage (work-related while at work) will be positively related to employer expectations.

H2b: Mobile device usage (work-related while at home) will be positively related to employer expectations.

H3b: Mobile device usage (personal usage while at work) will be negatively related to employer expectations.

Job Satisfaction, Productivity and Employer Expectations

Job satisfaction reflects an employee's evaluative response to the job; where it is absent, Locke (1991) argues, negative attitudes and reduced effort follow. Camp (1994) observes that employees with low satisfaction divert working time to personal tasks and withdraw discretionary contribution, damaging both organizational performance and the wider working environment. Imran et al. (2015) identify a pleasant work environment, supportive management, adequate remuneration, job security, organizational justice and career opportunity as the principal antecedents of satisfaction and note that employees perform well only when they are satisfied with the organization. Aquino et al. (1999) show that perceived injustice predicts employee deviance, and Senyamentor et al. (2019) report a positive association between job satisfaction and productivity among teachers.

The link from productivity to employer expectations rests on a simple behavioural mechanism: as employees demonstrate the capacity to complete assigned work, employers respond by assigning more (Yun et al., 2012). Clear expectations in turn clarify roles and responsibilities, which can reinforce output. Thus:

H4: Job satisfaction will be positively related to productivity.

H5: Productivity will be positively related to employer expectations.

Flexibility in Work Structure and Employer Expectations

Dessler (2016) defines flexibility in working structure as the ability to control work schedules, location and job roles in a way that satisfies both organizational goals and employee needs; Hill et al. (2008) frame it as the ability of workers to make choices influencing when, where and for how long they engage in work-related tasks. Its forms include job sharing, which distributes workload and reduces burnout while retaining employees who cannot commit to full-time hours (French et al., 2015); compressed workweeks, which Bauer and Erdogan (2012) associate with improved work-life balance, reduced commuting and lower absenteeism; and telecommuting, whose individual and organizational advantages and disadvantages Harpaz (2002) sets out in detail. Gaskell (2016) reports that flexible workers are absent less often and

work longer hours because higher job satisfaction protects them from burnout, which in turn raises what employers expect of their performance. Hence:

H6: Flexibility in work structure will be positively related to employer expectations.

Home Usage, Employer Expectations and Work-Life Conflict

Mazmanian et al. (2013) show that the expectation of constant availability leads work and personal time to overlap, and Mazmanian et al. (2004) record employees' own sense that the obligation to respond promptly intrudes on personal space. Derks et al. (2014) demonstrate that smartphone use produces work-home interference whose severity is moderated by social norms and work engagement, while Wright et al. (2014) link out-of-hours communication technology use to perceived work-life conflict, burnout, reduced job satisfaction and turnover intention. Tarafdar et al. (2015) trace the same mechanism through technostress to role stress. On the expectations side, Bell et al. (2012) find that rising employer expectations increase job stress, which degrades work-life balance and heightens work-life conflict; McShane et al. (2015) describe the consequent deterioration in job performance, satisfaction and productivity. Therefore:

H7: Mobile device usage (work-related while at home) will be positively related to work-life conflict.

H8: Employer expectations will be positively related to work-life conflict.

The resulting conceptual framework contains six constructs and eleven hypothesised paths, with productivity and employer expectations acting as mediators between the three usage constructs and work-life conflict.

It is presented in Figure 1.

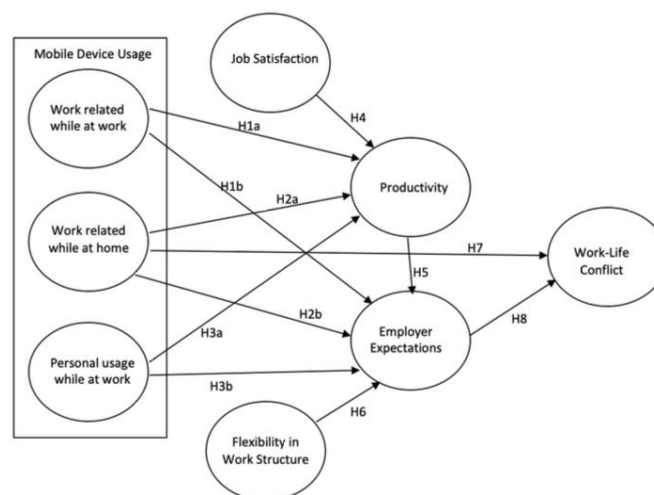


Figure 1. Research model

Source: adapted from Brown and Palvia (2015) and Senyamator et al. (2019)

RESEARCH METHOD

Research Paradigm and Design

The study adopts a positivist paradigm, in which knowledge proceeds from hypotheses that are tested against measurable reality, and is therefore quantitative in type: the data are numerical and are interpreted through statistical calculation (Sekaran & Bougie, 2016). In terms of data collection time the design is cross-sectional, with data gathered once, between

March and May 2024, by questionnaire. The unit of analysis is the individual, since the study seeks individual assessments of the relationship between device usage, productivity, employer expectations and work-life conflict.

Ethical conduct followed a deontological framework built on four principles: respect for participant autonomy, secured through informed consent obtained before data collection; promotion of justice, through equal opportunity to participate; ensuring beneficence, in that the research is intended to be useful to respondents and to the organization; and ensuring non-maleficence, implemented through anonymity and confidentiality. No participant was exposed to physical or psychological risk.

Population, Sample and Location

The research site is NGO X in South Jakarta. Jakarta was selected because it is Indonesia's economic hub, because the organization's headquarters and the majority of its full-time employees are located there, and because proximity permitted efficient distribution of the instrument. Respondents were required to be full-time employees aged eighteen or above, working in one of four departments (Agriculture, Forest and Other Land Use; Climate, Energy, Cities and Ocean; Communications; Operations), and to own at least one mobile device.

Probability sampling was used, since the number of full-time employees owning mobile devices is known precisely, in combination with a judgmental technique that applied the respondent characteristics above (Sekaran & Bougie, 2016). Following the sample-to-variable ratio of 20:1 recommended for multivariate work, the minimum requirement was 120 respondents (6 variables $\times$ 20). The questionnaire was distributed via Google Forms to all 160 full-time employees and 160 usable responses were returned, a complete enumeration of the full-time population and a figure above the minimum threshold.

Instrument and Measurement

The questionnaire has two sections. The first records respondent characteristics; the second contains the construct items, each measured on a five-point Likert scale anchored at 1 (strongly disagree) and 5 (strongly agree). A five-point scale was chosen because it shortens response time relative to six- to nine-point alternatives and reduces both acquiescence bias and extreme response bias. Items were adapted from instruments that had already passed reliability and validity testing, and both positively and negatively phrased items were included to discourage patterned responding. A pre-test of the items was conducted before full distribution. Table 1 summarises the constructs, their indicators and their sources.

Table 1. Research Instrument

Construct	Items	Indicator content	Source
Mobile device usage — work-related while at work (WAW)	6	Using a mobile device while at work to send work-related e-mails; access work-related documents; search work-related information; join work-related social media; send work-related messages; make work-related phone calls	Brown and Palvia (2015)
Mobile device usage — work-related while at home (WAH)	6	The same six activities performed while at home	Brown and Palvia (2015)
Mobile device usage — personal usage while at work (PAW)	8	Using a mobile device while at work to send private e-mails; access private documents; search private information; access private banking; purchase products and services for personal use; join private social media; send private messages; make private phone calls	Brown and Palvia (2015)
Productivity (PRO)	5	Mobile device usage helps me finish work faster;	Brown and Palvia

Construct	Items	Indicator content	Source
		improves the quality of my work; makes work easier to finish; makes me finish work more effectively; helps me finish more work	(2015)
Employer expectations (EE)	5	The device creates more work than I have experienced before; I feel constantly busy; I feel pressured by constant device usage; my employer expects more work because I own a device; my co-workers expect more work because I own a device	Brown and Palvia (2015)
Job satisfaction (JS)	6	Satisfaction with salary; satisfaction with fringe benefits; motivation to go to work; provision of skills training and workshops; perceived career growth; recognition of individual and team achievement	Senyamator et al. (2019)
Flexibility in work structure (FLX)	5	Flexibility over where I work; over when I finish my work; over which work I finish first; over how I do my work; over whom I work with	Brown and Palvia (2015); Hill et al. (2008)
Work-life conflict (WLC)	5	Work demands interfere with home and family life; the time my job takes makes family responsibilities difficult; things I want to do at home go undone; my job produces strain that makes family duties difficult; work duties force changes to family plans	Brown and Palvia (2015)

Source: adapted from Brown and Palvia (2015), Hill et al. (2008) and Senyamator et al. (2019)

Data Analysis Method

Because the model contains eight latent constructs and eleven simultaneous paths, partial least squares structural equation modelling (PLS-SEM) was selected and estimated in SmartPLS version 4.1.0.3 (Ghozali & Latan, 2012). Responses were exported to a spreadsheet, converted to CSV and imported into the software. Analysis proceeds in two stages.

The outer model establishes the relationship between indicators and latent variables. Indicator reliability is assessed through outer loadings, with a cut-off of 0.4 applied in this study; internal consistency through Cronbach's alpha and composite reliability, both required to exceed 0.7; and convergent validity through average variance extracted, required to exceed 0.5. Discriminant validity is assessed with the heterotrait-monotrait ratio of correlations, which is more sensitive than the Fornell-Larcker criterion and for which values below 0.9 indicate that constructs are empirically distinct.

The inner model evaluates the structural relationships. Multicollinearity is checked through the variance inflation factor, which must remain below 5; explanatory power is assessed through R-squared, where 0.75 is substantial, 0.50 moderate and 0.25 weak; and the hypotheses are tested by bootstrapping with path analysis, using a one-tailed test at the 5% error level. A path is accepted where the t-statistic exceeds 1.65 and the p-value falls below 0.05 (Malhotra, 2017). Specific indirect effects are examined separately to identify the operative mediation pathways.

RESULTS AND DISCUSSION

Respondent Profile

A total of 160 full-time employees of NGO X completed the online questionnaire between March and May 2024. Their characteristics are reported in Table 2. The workforce is predominantly male and young: half of all respondents fall in the 25-31 age band and the great majority are single or without children. It is also highly educated, with every respondent holding at least a bachelor-level qualification and 59% holding a postgraduate degree, and highly experienced, with 94% having four or more years of service.

The usage profile is the most striking finding. Every respondent owns both a smartphone

and a laptop, and 84% additionally own a desktop computer. Every respondent uses WhatsApp and Telegram, every respondent belongs to an organizational group chat, and every respondent uses e-mail, Telegram and G-Docs or Microsoft applications to transmit work documents. Every respondent reports spending more than three hours at home on work, every respondent still receives tasks while not at work, and 88% continue working while travelling. The organization therefore operates, in practice, without a boundary between work location and non-work location.

Table 2. Respondent Profile (N = 160)

Characteristic	Category	Count	%
Gender	Male	97	61%
	Female	66	39%
Age	18-24	12	7.5%
	25-31	80	50.0%
	32-38	30	19.0%
	Above 38	38	23.5%
Marital status	Single	98	61%
	Married	62	38%
Parental status	No children	72	45%
	One child	21	13%
	Two or more children	67	42%
Education	D4-S1 (bachelor)	67	41%
	Postgraduate	97	59%
Department	AFOLU	62	40%
	CECO	43	26%
	Communications	15	9%
	Operations	40	25%
Working experience	1-3 years	10	6%
	4-6 years	75	47%
	More than 6 years	75	47%
Devices owned	Smartphone	160	100%
	Laptop	160	100%
	Computer	135	84%
	Tablet	102	63%
Time at home on work	More than 3 hours	160	100%
Organizational group chat	Yes	160	100%
Still working while travelling	Yes	142	88%
Still receiving tasks when not at work	Yes	160	100%

Source: Google Forms output, 2024

Descriptive Statistics

Construct means were interpreted against a five-band scale in which 1.00-1.80 is very low, 1.81-2.60 low, 2.61-3.40 neutral, 3.41-4.20 high and 4.21-5.00 very high. Table 3 reports the range of indicator means within each construct.

Table 3. Summary of Indicator Means by Construct

Construct	Range of means	Construct pattern	Interpretation
WAW (work-related at work)	3.625 - 4.463	Agree to strongly agree	Consistent work use during hours
WAH (work-related at home)	3.556 - 4.481	Agree to strongly agree	Work use extends fully into the home
PAW (personal use at work)	2.769 - 4.475	Neutral to strongly agree	Personal messaging highest (4.475)
Productivity	4.475 - 4.806	Strongly agree	Devices seen as clearly productivity-enhancing
Employer expectations	3.231 - 4.444	Neutral to strongly agree	Feeling constantly busy highest (4.444)
Job satisfaction	2.362 - 3.862	Disagree to agree	Career growth lowest (2.362); training 2.506
Flexibility	3.013 - 4.606	Neutral to strongly agree	Location flexibility highest; choice of colleagues lowest
Work-life conflict	3.925 - 4.225	Agree to strongly agree	Interference with family life highest (4.225)

Source: SPSS output, 2024

Two patterns deserve emphasis. First, productivity records the highest means of any construct, with every indicator in the strongly-agree band: employees are unambiguously convinced that their devices help them work faster, more effectively and in greater volume. Second, job satisfaction is the weakest construct, and its two lowest indicators are organizational rather than personal, namely the provision of skills training (2.506) and perceived career growth (2.362). Work-life conflict, by contrast, is uniformly high.

Outer Model: Validity and Reliability

The outer model was estimated three times, with invalid and unreliable indicators removed at each iteration. Six indicators were eliminated (PRO2, PRO3, WAW2, WAW3, WLC5 and FLX4), leaving 40 indicators across eight constructs. Table 4 presents the retained loadings alongside AVE, Cronbach's alpha and composite reliability. The estimated measurement and structural model is shown in Figure 2.

Table 4. Convergent Validity and Reliability

Construct	Retained indicators (loading)	AVE	CA	CR	Result
WAW	WAW1 (0.662); WAW4 (0.799); WAW5 (0.760); WAW6 (0.937)	0.633	0.811	0.906	Valid
WAH	WAH1 (0.557); WAH2 (0.857); WAH3 (0.839); WAH4 (0.788); WAH5 (0.886); WAH6 (0.911)	0.664	0.899	0.927	Valid
PAW	PAW1 (0.728); PAW2 (0.919); PAW3 (0.873); PAW4 (0.744); PAW5 (0.773); PAW6 (0.685); PAW7 (0.519); PAW8 (0.661)	0.558	0.889	0.921	Valid
JS	JS1 (0.879); JS2 (0.884); JS3 (0.792); JS4 (0.847); JS5 (0.887); JS6 (0.563)	0.667	0.907	0.968	Valid
PRO	PRO1 (0.847); PRO4 (0.801); PRO5 (0.767)	0.649	0.732	0.749	Valid
EE	EE1 (0.875); EE2 (0.908); EE3 (0.948); EE4 (0.901); EE5 (0.566)	0.724	0.899	0.935	Valid
FLX	FLX1 (0.660); FLX2 (0.610); FLX3 (0.839); FLX5 (0.836)	0.553	0.758	0.905	Valid
WLC	WLC1 (0.888); WLC2 (0.818); WLC3 (0.870); WLC4 (0.896)	0.755	0.891	0.892	Valid

Source: SmartPLS 4, 2024. Cut-off values: loading > 0.4; AVE > 0.5; CA and CR > 0.7

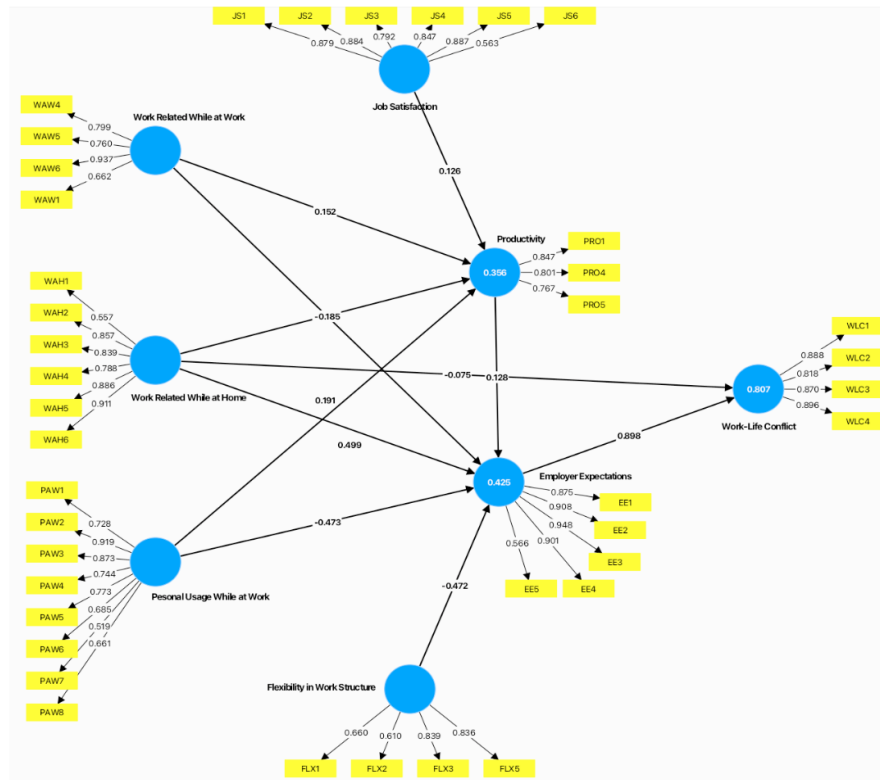


Figure 2. Smartpls Algorithm Result
Source: Smartpls 4, 2024

Every retained loading exceeds 0.4, every AVE exceeds 0.5, and every alpha and composite reliability exceeds 0.7. The instrument is therefore convergently valid and internally consistent across all eight constructs.

Table 5. Discriminant Validity (HTMT)

	EE	FLX	JS	PAW	PRO	WLC	WAH	WAW
EE								
FLX	0.409							
JS	0.276	0.563						
PAW	0.485	0.371	0.429					
PRO	0.261	0.690	0.458	0.441				
WLC	0.194	0.546	0.484	0.455	0.619			
WAH	0.210	0.653	0.583	0.413	0.572	0.817		
WAW	0.977	0.306	0.203	0.415	0.212	0.227	0.283	

Source: SmartPLS 4, 2024

All HTMT values fall below 1, indicating that the indicators discriminate adequately and that each set measures its own construct. The value of 0.977 between WAW and EE is nonetheless high and approaches the point at which the two constructs would cease to be empirically separable; this is noted as a limitation and returned to in the concluding section.

Inner Model: Collinearity and Explanatory Power

All variance inflation factors lie below the threshold of 5, with the highest at 2.555 (WAW on productivity), so multicollinearity does not distort the estimates. Table 6 reports the

coefficient of determination for the three endogenous constructs.

Table 6. Coefficient of Determination (R-Squared)

Endogenous construct	R-squared	Interpretation
Work-life conflict	0.807	Substantial — 80.7% explained by the model
Employer expectations	0.425	Moderate to weak — 42.5% explained
Productivity	0.356	Weak — 35.6% explained

Source: SmartPLS 4, 2024

Work-life conflict is very well explained by the model, leaving only 19.3% attributable to factors outside it, such as the availability of support systems at home and at work and the presence or absence of family-friendly organizational policies. Employer expectations and productivity are less well explained; the residual variance in employer expectations is plausibly attributable to job role and responsibility level, organizational culture and organizational goals, and that in productivity to organizational culture, workload allocation and individual time management.

Hypothesis Testing

Path coefficients were estimated by bootstrapping using a one-tailed test at the 5% error level. Results appear in Table 7.

Table 7. Hypothesis Test Results

No.	Path	Original sample (O)	Standard deviation	T statistics	P values
H1a	WAW → Productivity	0.152	0.128	1.184	0.118
H1b	WAW → Employer expectations	-0.185	0.133	1.388	0.083
H2a	WAH → Productivity	0.296	0.108	2.734	0.003
H2b	WAH → Employer expectations	0.499	0.084	5.952	0.000
H3a	PAW → Productivity	0.191	0.075	2.555	0.005
H3b	PAW → Employer expectations	-0.473	0.070	6.804	0.000
H4	Job satisfaction → Productivity	0.126	0.080	1.576	0.058
H5	Productivity → Employer expectations	0.128	0.091	1.415	0.079
H6	Flexibility → Employer expectations	-0.472	0.095	4.978	0.000
H7	WAH → Work-life conflict	-0.075	0.026	2.910	0.002
H8	Employer expectations → Work-life conflict	0.898	0.027	33.274	0.000

Source: SmartPLS 4, 2024. Criterion for support: $t > 1.65$, $p < 0.05$, and sign consistent with the hypothesised direction

Four hypotheses are supported: H2a, H2b, H3b and H8. Four are not supported because the relationship is statistically insignificant: H1a, H1b, H4 and H5. Three, namely H3a, H6 and H7, are statistically significant but carry the opposite sign to that predicted, and are therefore recorded as not supported while nonetheless constituting substantive findings in their own right. The strongest single relationship in the model by a wide margin is H8, where employer expectations predict work-life conflict with a coefficient of 0.898 and a t-statistic of 33.274. Because the model is mediated, specific indirect effects were tested separately. Only three of the thirteen indirect pathways reach significance, and all three run through employer expectations rather than productivity.

Table 8. Significant Specific Indirect Effects

Indirect pathway	T statistics	P values
WAH → Employer expectations → Work-life conflict	5.978	0.000
PAW → Employer expectations → Work-life conflict	6.171	0.000
Flexibility → Employer expectations → Work-life conflict	4.494	0.000

Source: SmartPLS 4, 2024. All remaining indirect pathways, including every pathway routed through productivity, returned $p > 0.05$

Discussion

The results depart from the pattern anticipated in the literature in ways that are internally coherent and, taken together, point to a single interpretation: in this organization the device is not the source of conflict, and expectations are.

Usage at Work Has No Measurable Effect

Neither H1a nor H1b is supported. Work-related device usage during working hours does not significantly predict productivity ($t = 1.184$) or employer expectations ($t = 1.388$). This is a striking result given that the descriptive statistics place every WAW indicator in the agree or strongly-agree band: employees plainly do use their devices for work while at work, but doing so has no discernible marginal consequence. Two explanations are consistent with the data. First, a device carried for work is simultaneously a conduit for interruption; Rasool et al. (2022) show that technology overload at the workplace degrades focus, and Bittner et al. (2021) demonstrate that device-enabled task switching lowers the quality of output while lengthening completion time. The descriptive result for FLX3, on which respondents agreed (mean 4.181) that they can choose which task to complete first, indicates precisely the discretionary switching that erodes the productivity gain. Second, on the expectations side, Lotko et al. (2015) argue that employers treat efficiency-related attributes as prerequisites rather than achievements, so ordinary in-office device use registers as a baseline rather than as evidence warranting higher expectations. These finding replicates that of Brown and Palvia (2015).

Usage at Home Raises Both Productivity and Expectations

H2a and H2b are both supported, and H2b is one of the strongest direct effects in the model (0.499, $t = 5.952$). Once the device leaves the office it becomes consequential. Employees of NGO X work in hybrid mode, and mobile devices allow organizational tasks to be handled outside the office and outside office hours (Yun et al., 2012), extending effective working time and raising measured output (Dessler, 2016). The same extension is visible to the employer as continuous availability and rapid coordination, which Demerouti et al. (2014) associate with faster decision cycles and which employers value highly. The context makes this unsurprising: every respondent reports spending more than three hours at home on work and every respondent still receives tasks when not at work.

Personal Usage at Work: Productive, but Costly to Reputation

The two personal-usage hypotheses diverge sharply, and this divergence is among the most interesting results of the study. H3a is significant ($t = 2.555$) but positive (0.191), the reverse of the prediction. Personal device use during working hours is associated with higher, not lower, productivity. Ivarsson and Larsson (2012) argue that prohibiting personal internet and device use provokes employee resistance, increased sick leave and higher turnover, and Delecta (2011) shows that a deficit of work-life balance itself damages motivation and productivity. On this reading, permitted personal use functions as a recovery mechanism that sustains psychological well-being across the working day rather than as a straightforward

distraction. The contrast with Pitichat (2013), who anticipates addiction-driven decline, suggests that moderate personal use and compulsive use are qualitatively different behaviours. H3b, by contrast, is supported and strongly negative (-0.473 , $t = 6.804$). The same behaviour that helps employees sustain output damages how employers evaluate them. Wright et al. (2011) find that visible personal device use erodes employer trust and creates a perception of reduced dedication and reliability, with consequences for performance evaluation and advancement; Demerouti et al. (2014) add the security dimension, since personal devices are not secured to organizational standards and may expose sensitive information. The practical implication is uncomfortable: employees are penalised in reputation for a behaviour that measurably supports their output.

Job Satisfaction and Productivity are Decoupled

H4 is not supported ($t = 1.576$, $p = 0.058$), narrowly failing the threshold. This departs from Senyamator et al. (2019). Fisher (2003) offers the most direct explanation: job satisfaction is a broad construct spanning emotional well-being, work environment, remuneration, benefits, relationships and personal goals, and no single dimension of it need translate into output. The descriptive data support this. Respondents are neutral about salary (2.938) and benefits (2.850) but clearly dissatisfied with training provision (2.506) and career growth (2.362), while simultaneously reporting the highest productivity scores in the study. Employees of NGO X appear to be productive despite, rather than because of, their satisfaction with the organization — a pattern consistent with mission-driven work. Wright and Cropanzano (2000) further show that psychological well-being and job satisfaction operate as distinct predictors of performance.

Productivity Does Not Raise Expectations; Flexibility Lowers Them

H5 is not supported ($t = 1.415$). De Jong and Den Hartog (2007) note that employer expectations frequently fail to track employee capability and circumstance, and Hackman and Oldham (1976) observe that conventional quantitative productivity measures do not capture the qualitative dimensions of work by which employers actually judge performance. Expectations in NGO X appear to be set by donor timetables and project deadlines rather than by observed output.

H6 produces the most counter-intuitive result: flexibility in work structure significantly reduces employer expectations (-0.472 , $t = 4.978$), inverting the prediction drawn from Gaskell (2016). Two mechanisms explain the inversion. First, flexibility removes the close monitoring and immediate supervision that give employers assurance about productivity and quality, so expectations are moderated by uncertainty rather than raised by demonstrated capacity (McNall et al. 2018). Second, dispersed working creates genuine coordination difficulty; Hill et al. (2015) show that work venue materially affects work and family outcomes, and even with universal group chat coverage in NGO X, aligning schedules for regular check-ins across remote and hybrid arrangements is difficult, producing misunderstandings and inefficiency that suppress rather than inflate what employers feel able to demand.

Expectations, Not Devices, Drive Work-Life Conflict

H7 is significant but negative (-0.075 , $t = 2.910$), so the hypothesis is not supported. Home-based work usage is, if anything, weakly associated with lower work-life conflict. The coefficient is very small, and the reading most consistent with the wider model is that home usage in this organization functions as an instrument for absorbing an externally imposed workload rather than as an independent cause of intrusion: employees who can process work at home experience marginally less conflict than those who cannot, precisely because the work arrives regardless. Role boundary theory nonetheless cautions that this accommodation carries

a cost in role conflict and in sleep, fatigue and burnout outcomes, and the finding that all 160 respondents spend more than three hours at home on work indicates that the accommodation is substantial.

H8 is supported overwhelmingly (0.898, $t = 33.274$), and the model explains 80.7% of the variance in work-life conflict. This is the central result of the study. Employer expectations, not device usage, are what convert into conflict. The indirect effect tests confirm the mechanism decisively: every significant indirect pathway to work-life conflict runs through employer expectations (WAH, $t = 5.978$; PAW, $t = 6.171$; flexibility, $t = 4.494$), and not one pathway routed through productivity attains significance. The descriptive data corroborate the outcome, with respondents strongly agreeing (4.225) that work demands interfere with home and family life. Bell et al. (2012) predicted exactly this chain from expectations through job stress to conflict, and French et al. (2015) and McShane et al. (2015) describe its terminus in burnout and degraded performance.

CONCLUSION

This study examined the effect of mobile device usage on employees' work-life conflict in an international non-governmental organization in South Jakarta, using a complete enumeration of the organization's 160 full-time employees and PLS-SEM estimation of a six-construct, eleven-path model. Four hypotheses were supported. Work-related mobile device usage while at home raises both productivity and employer expectations; personal usage while at work reduces employer expectations; and employer expectations raise work-life conflict very strongly, accounting with the rest of the model for 80.7% of its variance. Four hypotheses failed on significance: work-related usage during working hours affects neither productivity nor employer expectations, job satisfaction does not predict productivity, and productivity does not predict employer expectations. Three relationships were significant with the sign reversed: personal usage at work is positively rather than negatively related to productivity, flexibility in work structure reduces rather than raises employer expectations, and home-based work usage is weakly negatively rather than positively related to work-life conflict.

The single most consequential conclusion is mechanistic. Mobile devices do not generate work-life conflict directly; they generate it through the expectations that surround them. Every significant indirect pathway in the model reaches work-life conflict through employer expectations, and none reaches it through productivity. Policy aimed at devices will therefore miss its target; policy aimed at expectations will not.

THEORETICAL IMPLICATIONS

The study makes three contributions. First, it demonstrates the analytical value of disaggregating mobile device usage by location and purpose. Treating usage as a single construct would have concealed the fact that in-office work usage has no effect, home work usage has a strong effect and personal usage has effects that run in opposite directions for productivity and for employer perception. Second, it establishes employer expectations rather than productivity as the operative mediator between technology use and work-life conflict, refining the mediated structure proposed by Brown and Palvia (2015). Third, it fails to replicate the job satisfaction-productivity association reported by Senyametor et al. (2019) in a Ghanaian education setting, suggesting that the association is context-dependent and that in mission-driven organizations productivity may be sustained by commitment to the mission rather than by satisfaction with the employer. The reversal of the flexibility hypothesis further indicates that flexibility and expectation may be substitutes rather than complements where supervisory

visibility is low.

MANAGERIAL IMPLICATIONS

Three courses of action follow for NGO X and for comparable organizations.

1. Implement clear policies on mobile device usage. Management should establish explicit availability guidelines that define working hours and specify when employees are and are not expected to respond, together with a work-life balance policy limiting out-of-hours and weekend e-mail to genuinely urgent matters. The need is evident from the finding that 100% of respondents still receive tasks when not at work and 88% continue working while travelling. Consolidating communication onto a unified platform would also reduce the fragmentation created by the multiple channels — e-mail, Telegram, WhatsApp and Microsoft or Google applications — currently in simultaneous use.
2. Promote a culture of work-life balance from the top. Policies take effect only when modelled. Senior management should refrain from sending late-night and weekend messages, should actively encourage the use of paid time off, and should ensure that employees can take their full leave entitlement without an implicit expectation of remaining reachable. The mean of 2.731 on motivation to go to work indicates that the current climate is not sustaining engagement.
3. Provide training and support resources. The organization should offer training in time management and workload prioritisation, and provide access to counselling and wellness support for stress. Respondents disagreed (mean 2.506) that the organization currently provides skills training and workshops, and rated perceived career growth lowest of all indicators at 2.362; both are addressable and both bear on the satisfaction deficit identified in the discussion of job satisfaction above.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Several limitations qualify these findings. The sample of 160, although it constitutes the entire full-time workforce, excludes approximately 210 part-time consultants who form the majority of the organization's total workforce and who were not reachable within the study period because they are dispersed across Indonesia and hold external commitments; their workloads and backgrounds differ materially from those of full-time staff. The concentration of respondents in Jakarta may also narrow the range of responses, since working norms in Jakarta differ from those in less pressured Indonesian cities. Male and female respondents were unequally represented, which prevented analysis of how work-life conflict differs by gender. The mobile device usage items were framed broadly and did not distinguish between smartphones, tablets and laptops, although these devices are used differently. Some findings, notably that for personal usage at work, could not be interrogated further because the corresponding behaviour was not captured in the respondent characteristics. The very high HTMT value between WAW and employer expectations (0.977) warrants attention in any replication. Finally, the cross-sectional design precludes causal inference.

Future research should extend the sample to part-time consultants and to staff outside Jakarta, balance gender representation, and record employee grade or position, since level of seniority is likely to determine both workload and the intensity of employer expectations. The instrument should be refined to separate device types. Above all, the job satisfaction-

productivity relationship merits dedicated investigation with a richer set of constructs — job motivation, job characteristics, organizational commitment, organizational culture and support at home — since the present study finds it considerably more complex than the prior literature suggests. A longitudinal design would allow the causal direction of the expectations-conflict relationship, the strongest finding reported here, to be established.

REFERENCES

- Anheier, H. K. (2014). *Nonprofit organizations: Theory, management, policy*. Routledge.
- Anwar, M., & Shahzad, K. (2011). Impact of work-life conflict on perceived employee performance: Evidence from Pakistan. *European Journal of Economics, Finance and Administrative Sciences*, 31, 82–86.
- Aquino, K., Lewis, M. U., & Bradfield, M. (1999). Justice constructs, negative affectivity, and employee deviance: A proposed model and empirical test. *Journal of Organizational Behavior*, 20(7), 1073–1091. [https://doi.org/10.1002/\(SICI\)1099-1379\(199912\)20:7](https://doi.org/10.1002/(SICI)1099-1379(199912)20:7)
- Banks, N., Hulme, D., & Edwards, M. (2015). NGOs, states, and donors revisited: Still too close for comfort? *World Development*, 66, 707–718. <https://doi.org/10.1016/j.worlddev.2014.09.028>
- Bauer, T., & Erdogan, B. (2012). *An introduction to organizational behavior*. Flat World Knowledge.
- Bell, A., Rajendran, D., & Theiler, S. (2012). Job stress, wellbeing, work-life balance and work-life conflict among Australian academics. *Electronic Journal of Applied Psychology*, 8(1), 25–37. <https://doi.org/10.7790/ejap.v8i1.320>
- Bittner, B., Nagy, A. S., & Ujhelyi, M. (2021). The effects of using mobile and smart devices at work. *Issues in Information Systems*, 22(1), 227–235. <https://doi.org/10.48009/1iis2021227-235>
- Blakeman, R. (2023). *Integrated marketing communication: Creative strategy from idea to implementation*. Rowman & Littlefield.
- Brown, W. S., & Palvia, P. (2015). Are mobile devices threatening your work-life balance? *International Journal of Mobile Communications*, 13(3), 317–338. <https://doi.org/10.1504/IJMC.2015.069128>
- Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. W. W. Norton & Company.
- Bureau of Labor Statistics. (2021). *Productivity*. U.S. Department of Labor.
- Camp, S. D. (1994). Assessing the effects of organizational commitment and job satisfaction on turnover: An event history approach. *The Prison Journal*, 74(3), 279–305. <https://doi.org/10.1177/0032855594074003002>
- Cascio, W., & Montealegre, R. (2016). How technology is changing work and organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 3, 349–375. <https://doi.org/10.1146/annurev-orgpsych-041015-062352>
- De Jong, J. P., & Den Hartog, D. N. (2007). How leaders influence employees' innovative behaviour. *European Journal of Innovation Management*, 10(1), 41–64. <https://doi.org/10.1108/14601060710720546>

- Delecta, P. (2011). Work life balance. *International Journal of Current Research*, 3(4), 186–189.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512. <https://doi.org/10.1037/0021-9010.86.3.499>
- Derks, D., van Duin, D., Tims, M., & Bakker, A. (2014). Smartphone use and work-home interference: The moderating role of social norms and employee work engagement. *Journal of Occupational and Organizational Psychology*, 88(1), 155–177. <https://doi.org/10.1111/joop.12083>
- Dessler, G. (2015). *Human resource management*. Pearson.
- Dessler, G. (2016). *Fundamentals of human resource management* (4th ed.). Pearson.
- Fisher, C. D. (2003). Why do lay people believe that satisfaction and performance are correlated? Possible sources of a commonsense theory. *Journal of Organizational Behavior*, 24(6), 753–777. <https://doi.org/10.1002/job.219>
- French, R., Rayner, C., Rees, G., Rumbles, S., Schermerhorn, J., Hunt, J., & Osborn, R. (2015). *Organizational behaviour*. Wiley.
- Gaskell, A. (2016). *Why a flexible worker is a happy and productive worker*. Forbes.
- Ghozali, I., & Latan, H. (2012). *Konsep, teknik dan aplikasi SmartPLS 2.0 M3*. Badan Penerbit Universitas Diponegoro.
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16(2), 250–279. [https://doi.org/10.1016/0030-5073\(76\)90016-7](https://doi.org/10.1016/0030-5073(76)90016-7)
- Haddon, B. (2011). *An integrated framework for the conceptualisation and empirical analysis of work-life balance* [Doctoral dissertation, University of the Sunshine Coast]. <https://doi.org/10.25907/00582>
- Harpaz, I. (2002). Advantages and disadvantages of telecommuting for the individual, organization and society. *Work Study*, 51(2), 74–80. <https://doi.org/10.1108/00438020210418791>
- Hill, E. J., Ferris, M., & Martinson, V. (2015). Does it matter where you work? A comparison of how three work venues influence aspects of work and personal/family life. *Journal of Vocational Behavior*, 63(2), 220–241. [https://doi.org/10.1016/S0001-8791\(03\)00042-3](https://doi.org/10.1016/S0001-8791(03)00042-3)
- Hill, E., Grzywacz, J., Allen, S., Blanchard, V., Matz, C., Shulkin, S., & Pitt-Catsoupes, M. (2008). Defining and conceptualizing workplace flexibility. *Community, Work and Family*, 11(2), 149–163. <https://doi.org/10.1080/13668800802024678>
- Huo, M. L., & Jiang, Z. (2023). Work–life conflict and job performance: The mediating role of employee wellbeing and the moderating role of trait extraversion. *Personality and Individual Differences*, 205, 112109. <https://doi.org/10.1016/j.paid.2023.112109>
- Imran, R., Majeed, M., & Ayub, A. (2015). Impact of organizational justice, job security and job satisfaction on organizational productivity. *Journal of Economics, Business and Management*, 3(9), 840–845. <https://doi.org/10.7763/JOEBM.2015.V3.295>
- Ivarsson, L., & Larsson, P. (2011). Personal Internet usage at work: A source of recovery. *Journal of Workplace Rights*, 16(1), 63–81. <https://doi.org/10.2190/WR.16.1.e>

- Locke, E. A. (1991). The motivation sequence, the motivation hub, and the motivation core. *Organizational Behavior and Human Decision Processes*, 50(2), 288–299. [https://doi.org/10.1016/0749-5978\(91\)90023-M](https://doi.org/10.1016/0749-5978(91)90023-M)
- Lotko, M., Razgale, I., & Vilka, L. (2016). Mutual expectations of employers and employees as a factor affecting employability. *The European Journal of Social and Behavioural Sciences*, 17(3), 294–311. <https://doi.org/10.15405/ejsbs.199>
- Lu, M., Yueh, H., & Lin, W. (2015). Exploring the key factors for corporate implementation of mobile technology. In *2015 IEEE 15th International Conference on Advanced Learning Technologies (ICALT)* (pp. 480–482). IEEE. <https://doi.org/10.1109/ICALT.2015.104>
- Malhotra, N. K. (2017). *Marketing research: An applied orientation*. Pearson India Education Services.
- Mazmanian, M., Orlikowski, W. J., & Yates, J. (2013). The autonomy paradox: The implications of mobile email devices for knowledge professionals. *Organization Science*, 24(5), 1337–1357. <https://doi.org/10.1287/orsc.1120.0806>
- Mazmanian, M., Orlikowski, W., & Yates, J. (2004). CrackBerries: The social implications of ubiquitous wireless e-mail devices. In *IFIP International Federation for Information Processing* (pp. 337–343). https://doi.org/10.1007/0-387-28918-6_25
- McKinsey Global Institute. (2017). *A future that works: Automation, employment, and productivity*. McKinsey & Company.
- McNall, L. A., Masuda, A. D., & Nicklin, J. M. (2018). Flexible work arrangements, job satisfaction, and turnover intentions: The mediating role of work-to-family enrichment. *The Journal of Psychology*, 144(1), 61–81. <https://doi.org/10.1080/00223980903356073>
- McShane, S., Steen, S., & Tasa, K. (2015). *Canadian organizational behaviour* (9th ed.). McGraw Hill.
- Pitichat, T. (2013). Smartphones in the workplace: Changing organizational behavior, transforming the future. *LUX*, 3, 1–10. <https://doi.org/10.5642/lux.201303.13>
- Rasool, T., Warraich, N. F., & Sajid, M. (2022). Examining the impact of technology overload at the workplace: A systematic review. *SAGE Open*, 12(3). <https://doi.org/10.1177/21582440221114320>
- Scarpi, D. (2005). Hedonic and utilitarian behaviour in specialty shops. *The Marketing Review*, 5, 31–44. <https://doi.org/10.1362/1469347053294797>
- Schroeder, R. (2010). Mobile phones and the inexorable advance of multimodal connectedness. *New Media & Society*, 12(1), 75–90. <https://doi.org/10.1177/1461444809355114>
- Sekaran, U., & Bougie, R. (2016). *Research methods for business* (7th ed.). Wiley.
- Senyamator, F., Minadzi, V. M., Dankyi, L. A., & Maison, R. S. (2019). Relationship between teacher job satisfaction and productivity in the Asante Akim South District of the Ashanti Region of Ghana. *Journal of Education and Learning*, 8(3), 193–201. <https://doi.org/10.5539/jel.v8n3p193>
- Tarafdar, M., Tu, Q., Ragu-Nathan, B. S., & Ragu-Nathan, T. S. (2015). The impact of technostress on role stress and productivity. *Journal of Management Information Systems*, 24(1), 301–328. <https://doi.org/10.2753/MIS0742-1222240109>
- Turel, O., Serenko, A., & Bontis, N. (2011). Family and work-related consequences of

- addiction to organizational pervasive technologies. *Information & Management*, 15(2–3), 88–95. <https://doi.org/10.1016/j.im.2011.01.004>
- Varghese, S., & Kumari, K. T. (2018). Effect of social media on employee productivity in education sector. *International Journal of Engineering and Management Research*, 8(1), 146–149.
- We Are Social., & Meltwater. (2023, January). *Digital 2023: Indonesia*. <https://wearesocial.com/id/blog/2023/01/digital-2023/>
- Wood, J., Oh, J., Park, J., & Kim, W. (2020). The relationship between work engagement and work-life balance in organizations: A review of the empirical research. *Human Resource Development Review*, 19(3), 240–262. <https://doi.org/10.1177/1534484320917560>
- Wright, H. R., J., Mooney, J. L., & Parham, A. G. (2011). Your firm's mobile devices: How secure are they? *Journal of Corporate Accounting & Finance*, 22(5), 13–21. <https://doi.org/10.1002/jcaf.20701>
- Wright, K. B., Abendschein, B., Wombacher, K., O'Connor, M., Hoffman, M., & Shelton, A. (2014). Work-related communication technology use outside of regular work hours and work life conflict: The influence of communication technologies on perceived work life conflict, burnout, job satisfaction, and turnover intentions. *Management Communication Quarterly*, 28(4), 507–530. <https://doi.org/10.1177/0893318914533332>
- Wright, T. A., & Cropanzano, R. (2000). Psychological well-being and job satisfaction as predictors of job performance. *Journal of Occupational Health Psychology*, 5(1), 84–94. <https://doi.org/10.1037/1076-8998.5.1.84>
- Yadav, P., & Marwah, C. (2015). The concept of productivity. *International Journal of Engineering and Technical Research (IJETR)*, 3(5), 192–196.
- Yun, H., Kettinger, W., & Lee, C. (2012). A new open door: The smartphone's impact on work-to-life conflict, stress, and resistance. *International Journal of Electronic Commerce*, 16(4), 121–152. <https://doi.org/10.2753/jec1086-4415160405>

Published by:
Faculty of Economics and Business
Universitas Pelita Harapan

Mailing Address
Fakultas Ekonomi dan Bisnis, Universitas Pelita Harapan,
Kampus Universitas Pelita Harapan Gedung F Lt. 12
Lippo Karawaci, Tangerang 15811

Phone: 021-5460901
Email: feedforward.journal@uph.edu
Website: <https://ojs.uph.edu/index.php/FF>

