

MIDOCEAN UNIVERSITY

College of Management

The Impact of Employee Motivation on Employee Performance

Assignment 4 — Final Project

Complete Research Project: Chapters One to Five

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Abstract

Employee motivation is a central management concern because it shapes the direction, intensity, and persistence of work effort. This study examined the relationship between employee motivation and self-reported employee performance using an openly published cross-sectional survey of employees in Saudi Arabia and Yemen. The analytical sample comprised 307 complete responses collected during June–July 2020. Employee motivation was measured with six seven-point items, and employee performance was measured with five four-point items. Negatively worded items were reverse-scored before arithmetic-mean composite scores were calculated. The analysis included sample profiling, corrected item–total correlations, Kaiser–Meyer–Olkin and Bartlett tests, Cronbach’s alpha, descriptive statistics, Pearson correlation, and simple ordinary least-squares regression.

Motivation showed good internal consistency ($\alpha = .824$), whereas the performance scale showed weak internal consistency ($\alpha = .489$). Mean motivation was 4.395 on the 1–7 scale, and mean performance was 2.909 on the 1–4 scale. Employee motivation was positively correlated with performance ($r = .207, p < .001$). The regression model was statistically significant, $F(1, 305) = 13.61, p < .001$, and motivation positively predicted performance ($B = .0866, \beta = .207$). However, the model explained only 4.27% of performance variance. The hypothesis was therefore supported, but the result represents a small, exploratory association rather than proof of causation. Managers should combine balanced motivation practices with adequate resources, clear roles, useful feedback, fair recognition, employee development, and stronger performance measurement.

Keywords: employee motivation; employee performance; self-determination theory; goal-setting theory; human resource management; Saudi Arabia; Yemen.

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General Framework of the Study

Research Introduction

Organizations depend on people to convert strategies, capital, technology, and information into meaningful results. Although modern firms increasingly invest in digital systems and formal performance controls, these resources create value only when employees are willing to direct sustained effort toward organizational objectives. Employee motivation therefore represents a central management concern because it affects why people initiate work, how intensely they work, how long they persist, and whether they use their capabilities creatively. Work motivation has been defined as the internal and external energetic forces that initiate work-related behaviour and determine its direction, intensity, and duration [2].

The management literature distinguishes between intrinsic and extrinsic forms of motivation. Intrinsic motivation exists when employees perform an activity because the work itself is interesting, meaningful, or satisfying. Extrinsic motivation arises when employees act to obtain separable outcomes such as pay, promotion, recognition, security, or avoidance of negative consequences. Self-determination theory further explains that externally initiated behaviour varies in the degree to which it is internalized. Employees may comply only to obtain a reward, or they may identify with a goal because they personally value its contribution [3]. This distinction is important because the quality of motivation may influence performance differently from the total amount of effort.

Employee performance refers to the behaviors and results through which an individual contributes to work objectives. In the present study, it is assessed through employees' reports of task timeliness, perceived quality, and effective completion. The operational measure is the five-item performance section of a public employee survey conducted in Saudi Arabia and Yemen [8]. This individual-level definition matches the unit of analysis and avoids making unsupported claims about audited organization-level outcomes.

Several theoretical mechanisms explain why motivation may affect performance. Motivated employees allocate attention to work priorities, exert greater effort, persist when difficulties arise, and develop better task strategies. Goal-setting theory proposes that specific and challenging goals can improve performance by directing attention, mobilizing effort, increasing persistence, and stimulating strategy development, provided that employees possess adequate ability, feedback, resources, and commitment [5]. Motivation can also support discretionary behaviours such as cooperation, learning, creativity, and proactive problem solving, which may improve collective performance beyond the completion of formally assigned duties.

The contemporary evidence base generally supports a positive relationship. A forty-year meta-analysis covering 183 studies and 212,468 participants found that intrinsic motivation was a medium-to-strong predictor of performance and was especially relevant to performance quality, whereas incentives were relatively stronger predictors of performance quantity [4]. More recently, a meta-analytic review of cross-lagged longitudinal studies found that earlier work motivation predicted later job performance after controlling for prior performance, while the reverse pathway was not statistically significant [1]. These findings suggest that motivation is not merely a temporary reaction to good performance; it can operate as an antecedent of subsequent performance.

Nevertheless, management practice often treats motivation as a simple matter of increasing financial rewards. Such an approach overlooks differences between autonomous and controlled motivation, meaningful work, and employees' general feelings about their jobs. The present study examines employee motivation as a broad work-related state represented by enjoyment, satisfaction,

enthusiasm, and the reverse of job unpleasantness or disengagement. It investigates whether higher motivation is associated with stronger self-reported employee performance.

Research Problem

Many organizations experience a gap between the performance they expect and the performance employees actually deliver. Management may introduce targets, monitoring systems, and compensation programmes, yet outcomes can remain inconsistent when employees do not perceive their work as meaningful, supported, fairly rewarded, or connected to organizational goals. Low or poorly structured motivation can appear through reduced effort, absenteeism, weak service quality, limited initiative, resistance to change, and higher intentions to leave. These consequences can affect productivity, customer relationships, operating costs, and the organization's ability to sustain competitive performance.

Theoretical Gap

The literature demonstrates that motivation is multidimensional, yet applied datasets often combine related motivational feelings into a single score. The meta-analysis by Van den Broeck et al. found that intrinsic motivation is particularly important for well-being, attitudes, and behaviour, while identified regulation is especially relevant to performance and organizational citizenship behaviour [3]. Similarly, Cerasoli et al. showed that intrinsic motivation explains more variation in performance quality, whereas incentives are more closely connected to performance quantity [4]. The present study acknowledges this multidimensional theory but limits its statistical claim to the overall six-item motivation score available in the public dataset.

A second theoretical gap concerns causal direction. Cross-sectional studies cannot determine whether motivated employees become better performers or whether successful performance makes employees feel more motivated. The longitudinal meta-analytic evidence reported by Wang et al. supports a directional pathway from motivation to later performance [1], but further organizational studies are needed to examine how this relationship appears in different work contexts and through practical indicators understood by employees.

Practical Gap

Managers frequently need evidence about which motivational practices deserve priority. Financial rewards are visible and easy to administer, but they may not address employees' needs for autonomy, competence, relatedness, recognition, development, and purposeful work. Evidence based on 32,614 individuals across 25 countries indicates that autonomy and social relatedness are positively associated with work motivation and that wider social conditions can shape these relationships [2]. Organizations that rely only on pay may therefore miss important non-financial mechanisms.

In addition, managers need contextual evidence about whether motivated employees report stronger task performance, particularly in demanding or disrupted work conditions. The availability of a public survey of 307 employees from Saudi Arabia and Yemen makes it possible to examine this relationship transparently with reproducible analysis [8]. Accordingly, the main problem is expressed through the following question:

Main Research Question

To what extent does employee motivation influence employee performance among the surveyed employees?

Research Significance

Theoretical Significance

This study contributes to management knowledge by integrating self-determination theory and goal-setting theory within a single framework. Self-determination theory explains the quality and internalization of motivation, while goal-setting theory explains how motivation can become focused effort and persistence. The empirical model intentionally tests the overall motivation–performance relationship because the public dataset provides a concise general motivation composite rather than complete subscales for every motivational regulation.

The study uses the published questionnaire and supplementary workbook documented by Mgamal and Al-Matari [8]. Six job-feeling items form the motivation composite, and five self-report task items form the employee-performance composite. Using a documented public source strengthens transparency because the instrument, raw responses, scoring decisions, and analysis can be independently checked.

Practical Significance

For managers, the findings can provide evidence for designing motivational systems that combine fair rewards with meaningful work, recognition, employee development, autonomy, supportive supervision, and clear goals. Rather than assuming that one policy motivates all employees, decision makers can identify the motivational dimensions most strongly associated with performance. The results can inform human resource planning, performance management, leadership development, reward design, and employee engagement initiatives.

For employees, better motivational practices may create a more supportive and purposeful work environment. When employees understand goals, perceive fair treatment, receive feedback, and have opportunities to develop, they are more likely to invest sustained effort. For organizations, such conditions may improve service quality, productivity, retention, innovation, and responsiveness. The study is therefore relevant to both employee experience and organizational effectiveness.

Research Questions

The main question is supported by the following specific research questions:

No.	Research question
RQ1	What is the level of employee motivation among the surveyed employees?
RQ2	What is the level of employee performance among the surveyed employees?
RQ3	Does employee motivation have a positive and statistically significant effect on employee performance?

Research Objectives

The main objective is to assess the effect of employee motivation on employee performance. More specifically, the study aims to measure the level of employee motivation, assess the level of self-reported employee performance, test the correlation between the two constructs, estimate a simple regression model, and develop cautious managerial recommendations based on the strength and limitations of the evidence.

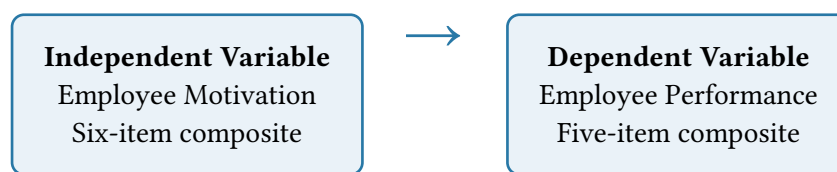
Research Hypotheses

The hypotheses are stated in testable form. Statistical significance will be evaluated at an alpha level of 0.05.

Code	Hypothesis
H1	Employee motivation has a positive and statistically significant effect on employee performance.
H0	Employee motivation has no statistically significant effect on employee performance.

Research Model

The conceptual model identifies employee motivation as the independent variable and employee performance as the dependent variable. Motivation is represented by a six-item general job-feeling composite, while performance is represented by a five-item self-report task-performance composite. The parsimonious model is designed to test the single relationship supported by the available public data.



The model predicts that stronger employee motivation will be associated with higher employee performance. Because the source instrument does not provide complete multidimensional motivation subscales, the empirical test uses one overall motivation score and does not claim separate intrinsic or extrinsic effects.

Scope of the Study

The study uses a public cross-sectional dataset containing 307 complete employee responses from Saudi Arabia and Yemen. The original survey was administered online during the COVID-19 period using purposive and snowball sampling [8]. The unit of analysis is the individual employee, and both constructs are self-reported.

Conceptually, the study is limited to the overall employee-motivation composite and the overall employee-performance composite contained in the source questionnaire. Other factors such as leadership, organizational support, technology, health, ability, and role clarity may also affect performance, but they are outside the primary model. Geographically and temporally, the evidence is bounded by the two Middle Eastern countries and the pandemic context; generalization beyond that setting must therefore be cautious.

Project Structure

The project is organized into five chapters. Chapter One presents the research background, problem, significance, questions, objectives, hypotheses, conceptual model, and scope. Chapter Two reviews theories and empirical studies concerning employee motivation, employee performance, and the relationship between them. Chapter Three explains the research design, population, sampling, data collection, measurement, and statistical procedures. Chapter Four reports sample characteristics, validity and reliability, descriptive statistics, correlations, regression tests, and interpretation of findings. Chapter Five presents limitations, recommendations, future research directions, and the conclusion.

Literature Review

Introduction

This chapter examines the theoretical and empirical foundations of the proposed relationship between employee motivation and employee performance. It first explains the independent variable, including intrinsic and extrinsic motivation and the principal theories used to understand them. It then discusses the dependent variable and the difficulties involved in measuring employee performance. Finally, it reviews empirical evidence linking motivation with performance and develops the logic supporting the hypotheses.

Employee Motivation

Employee motivation concerns the forces that energize, direct, and sustain work behaviour. This definition emphasizes that motivation is not identical to ability or performance. An employee may possess excellent skills but invest little effort, while another may exert strong effort without having adequate knowledge or resources. Performance therefore depends on a combination of motivation, ability, role clarity, opportunity, and organizational support. The managerial value of motivation lies in its capacity to influence how employees use the abilities and opportunities available to them.

Intrinsic Motivation

Intrinsic motivation occurs when an employee engages in work because the activity is interesting, enjoyable, meaningful, or personally satisfying. The work itself supplies the reward. Intrinsically motivated employees may be more willing to explore alternatives, learn from feedback, persist through complexity, and protect quality even when direct monitoring is limited. This form of motivation is especially relevant to jobs requiring creativity, judgment, problem solving, knowledge sharing, and service orientation.

The meta-analysis by Cerasoli et al. found that intrinsic motivation predicted performance across diverse domains and explained more unique variance in performance quality than incentives [4]. This finding is consistent with the idea that interest and meaningfulness encourage deeper engagement rather than simple compliance. The broader self-determination theory meta-analysis also found that intrinsic motivation is especially important for employee well-being, attitudes, and positive work behaviour [3].

Intrinsic motivation can be supported when jobs provide autonomy, opportunities to use competence, constructive feedback, and connection with colleagues or beneficiaries. It can be weakened when employees experience excessive control, unclear priorities, monotonous tasks, unfair treatment, or a lack of resources. Managers therefore influence intrinsic motivation not only through communication, but also through job design, leadership behaviour, learning opportunities, and the degree of discretion employees possess.

Extrinsic Motivation

Extrinsic motivation refers to behaviour directed toward outcomes separate from the activity itself. These outcomes include salary, bonuses, promotion, recognition, job security, performance ratings, and avoidance of sanctions. Extrinsic motivation is not necessarily harmful or inferior. Well-designed rewards can communicate priorities, recognize contribution, and encourage effort toward measurable goals. The evidence indicates that incentives can be relatively effective predictors of performance quantity [4].

However, extrinsic motivation varies in quality. External regulation involves acting mainly to obtain a reward or avoid punishment. Identified regulation occurs when employees accept the value of a task and view it as personally important. An employee may not enjoy completing a compliance

report, for example, but may willingly perform it because accurate reporting protects customers and the organization. The meta-analysis by Van den Broeck et al. found that identified regulation is particularly relevant to performance and organizational citizenship behaviour, whereas external regulation has less favourable outcomes overall [3].

The practical implication is that managers should not choose between intrinsic and extrinsic motivation as if they were mutually exclusive. They should create fair rewards while helping employees understand the purpose of goals, participate in decisions where possible, receive useful feedback, and connect tasks with personally and socially valued outcomes. Balanced systems can recognize results without reducing work to short-term reward seeking.

Self-Determination Theory

Self-determination theory proposes that motivation ranges from amotivation through controlled forms of regulation to autonomous forms. It emphasizes three basic psychological needs: autonomy, competence, and relatedness. Autonomy refers to experiencing choice and ownership of action. Competence refers to feeling effective and capable of mastering challenges. Relatedness refers to feeling respected and connected to others. Work contexts that support these needs are more likely to promote autonomous motivation.

Large cross-national evidence supports the relevance of context. Vo et al. analyzed 32,614 individuals across 25 countries and reported positive associations between autonomy, social relatedness, and work motivation, while also showing that social and cultural conditions can moderate motivational relationships [2]. This suggests that universal motivational principles operate within local organizational and societal conditions. Managers should therefore adapt practices to their workforce rather than applying identical incentives without considering employee expectations and cultural context.

Goal-Setting Theory

Goal-setting theory explains how motivation becomes directed action. Locke and Latham's synthesis of 35 years of research concluded that specific and challenging goals generally improve performance more than vague instructions such as "do your best," assuming commitment, ability, feedback, and resources are adequate [5]. Goals affect performance by directing attention, increasing effort, extending persistence, and encouraging the development of strategies.

For goal systems to motivate effectively, employees need to understand expectations, perceive goals as attainable with effort, receive timely feedback, and have access to relevant resources.

Participation can strengthen acceptance when goals are complex or potentially controversial.

Excessively narrow goals may also create unintended behaviour, such as sacrificing quality for quantity. Managers should therefore combine clear targets with ethical standards, quality indicators, learning goals, and opportunities for feedback.

Motivational Practices in Organizations

A comprehensive motivational system integrates financial and non-financial practices. Fair pay and benefits satisfy important expectations and reduce perceptions of inequity. Recognition communicates that contribution is noticed. Development and promotion opportunities support competence and future orientation. Autonomy and participation encourage ownership. Supportive supervision strengthens trust and relatedness. Meaningful work connects daily activities with customers, communities, or organizational purpose. Clear goals and feedback direct effort and enable employees to adjust their behaviour.

The effectiveness of these practices depends on consistency. Recognition will have limited motivational value if rewards are perceived as biased, while development programmes may not

motivate if employees see no opportunity to apply new capabilities. Similarly, ambitious goals can demotivate when resources are inadequate. Management should therefore evaluate the motivational climate as an integrated system rather than treating each practice as an isolated intervention.

Employee Performance

Employee performance concerns the extent to which an individual completes work duties effectively, reliably, and on time. It can include task performance, contextual contribution, adaptability, and counterproductive behavior, although the present project focuses on a concise self-report task-performance measure. Individual performance is conceptually distinct from organization-level financial or operational performance, even though employee contributions can aggregate into broader outcomes.

Objective indicators such as output, error rates, sales, attendance, or supervisor ratings can provide valuable evidence, but they are often unavailable in public cross-sectional surveys. Self-report measures are practical when employees understand their own tasks, yet they can be affected by social desirability, differences in interpretation, and common-method variance. Results should therefore be described as self-reported employee performance rather than audited performance.

The source questionnaire contains five items addressing completing tasks on time, perceived job performance, perceived quality, and effective completion [8]. Two positively worded items are reverse-scored so that higher composite values consistently represent better performance. Reliability and factorability must be checked before interpreting any relationship with motivation.

Relationship Between Employee Motivation and Employee Performance

The relationship begins at the individual level. Motivation influences attention, effort, persistence, learning, and strategy use. These behaviors can improve task completion, timeliness, and quality, although performance also depends on ability, resources, role clarity, health, and work conditions. Employee contributions may aggregate into organizational outcomes, but this study tests only the individual-level association captured by the source questionnaire.

The strongest broad evidence comes from meta-analysis. Cerasoli et al. synthesized 183 studies with 212,468 participants and found that intrinsic motivation was a medium-to-strong predictor of performance, with effect sizes varying by context and performance type [4]. Their results indicate that intrinsic motivation and incentives jointly predict performance, but intrinsic motivation contributes more to quality while incentives contribute more to quantity. A balanced model is therefore more defensible than a single-factor reward model.

Van den Broeck et al. synthesized 124 samples and found differentiated associations across motivational regulations [3]. Intrinsic motivation was strongly relevant to positive employee outcomes, and identified regulation was especially useful for predicting performance and citizenship behavior. These results explain why an overall positive relationship is plausible, while also cautioning that the general composite cannot reveal which regulation is most influential.

Causal interpretation is strengthened by longitudinal evidence. Wang et al. analyzed 84 correlations from 11 independent longitudinal studies involving 4,389 participants. Motivation at the first measurement predicted later performance after controlling for prior performance, whereas prior performance did not significantly predict later motivation [1]. Although the average directional effect was modest, it supports the proposition that motivation contributes to subsequent performance rather than merely reflecting it.

The relationship is unlikely to be automatic. Ability, resources, leadership, role clarity, job design, and external conditions can strengthen or weaken the conversion of motivation into results. A highly motivated employee cannot maintain quality without adequate tools, and a technically

capable employee may underperform when goals conflict or rewards are perceived as unfair. Motivation should therefore be interpreted as an important explanatory factor within a broader performance system.

Study	Method / sample	Central finding	Relevance to this project
Wang et al. (2024)	Meta-analytic SEM; 11 longitudinal studies; n = 4,389	Earlier motivation predicted later performance; reverse pathway was not significant.	Supports the directional logic of H1.
Van den Broeck et al. (2021)	Meta-analysis of 124 samples	Motivational regulations have distinct outcomes; identified regulation is important for performance.	Provides theory while cautioning against treating all regulations as identical.
Cerasoli et al. (2014)	Meta-analysis; 183 studies; N = 212,468	Intrinsic motivation predicts quality; incentives better predict quantity.	Supports an expected positive overall relationship.
Vo et al. (2022)	Multilevel analysis; 32,614 people in 25 countries	Autonomy and relatedness are positively associated with work motivation.	Supports contextual and non-financial motivational practices.
Locke & Latham (2002)	Review of 35 years of goal research	Specific, challenging goals improve performance under appropriate conditions.	Explains how motivation becomes focused effort.

Literature Synthesis and Research Gap

The literature provides consistent support for a positive link between employee motivation and performance, but it also shows that the relationship is more complex than a simple “higher reward equals higher performance” assumption. Different motivational regulations can have different consequences, and performance depends on many enabling conditions. The present model therefore tests a focused overall relationship rather than claiming that motivation is the sole determinant of performance.

The practical gap concerns whether the expected positive association is observable in a transparent Middle Eastern employee dataset collected under unusually demanding pandemic conditions. Applying reproducible scoring and statistical procedures to the published source can produce evidence that is academically grounded while clearly stating measurement and generalization limits.

Conclusion

This chapter reviewed employee motivation, employee performance, and the mechanisms connecting them. Self-determination theory explains why autonomous and controlled forms of motivation have different consequences, while goal-setting theory explains how clear and challenging objectives focus effort and persistence. Meta-analytic and longitudinal evidence supports the expectation that motivation is positively associated with performance. The review therefore provides a sound basis for H1. The next assignment develops the methodology required to test this proposition with the public employee dataset.

Research Methodology

Introduction

This chapter explains the methodology used to examine the relationship between employee motivation and employee performance. It converts the conceptual framework developed in Assignment 1 into a transparent empirical procedure. The chapter presents the operational definitions, research design, population and sampling technique, data-collection source, types of data, statistical procedures, ethical safeguards, and methodological limitations.

The project uses a published, anonymized employee survey dataset rather than claiming that a new survey was conducted by the student. The dataset was collected in Saudi Arabia and Yemen during June–July 2020 and was released with its questionnaire under an open license [8]. This approach makes the analysis reproducible and avoids fabricating participants or responses. Because the original study was cross-sectional and nonexperimental, the statistical findings are interpreted as association and prediction rather than definitive proof of causation.

Operational Definitions of the Research Variables

Operational definitions identify exactly how the study variables are measured. Employee motivation is the independent variable, and employee performance is the dependent variable. The published workbook labels the relevant item groups “Work motivation” and “Works performance.” Composite scores are arithmetic means after negatively phrased items are reverse-scored, so a higher value consistently represents more motivation or better performance.

Employee Motivation

Conceptually, work motivation consists of energetic forces inside and outside the individual that initiate work-related behaviour and determine its direction, intensity, and duration [2]. Motivation theory also distinguishes relatively autonomous reasons for working from controlled or externally regulated reasons [3].

Operationally, this project uses the six items classified as work motivation in the public dataset [8]. The items capture recent energy, vitality, positive affect, emotional stability, and the reverse of distress and exhaustion. Responses range from 1, “Strongly Disagree,” to 7, “Strongly Agree.” Workbook items Q27, Q28, and Q31 are negatively phrased and are transformed using $8 - x$. The motivation score is the mean of Q26–Q31 after this recoding.

Employee Performance

Employee performance refers to the extent to which a worker completes expected tasks effectively, on time, and at an acceptable level of quality. It is treated as an individual self-reported outcome rather than an audited organizational financial indicator. This distinction limits overgeneralization while keeping the measure relevant to management practice.

Operationally, performance is measured by five published items concerning timeliness, postponement of tasks, disappointment with one’s performance, and perceived contribution through high-quality work [8]. Responses range from 1, “Strongly Disagree,” to 4, “Strongly Agree.” Workbook items Q21, Q23, and Q24 are negatively phrased and are transformed using $5 - x$. The employee-performance score is the mean of Q21–Q25 after recoding.

Construct	Operational indicators	Items	Scale	Reverse-coded items	Composite
Employee Motivation	Energy, vitality, positive affect,	6	1–7	Q27, Q28, Q31	Mean of six scored items

	emotional stability, low distress, and low exhaustion				
Employee Performance	Task timeliness, reduced delay, satisfaction with performance, and quality contribution	5	1–4	Q21, Q23, Q24	Mean of five scored items

Research Design: The Research Onion

The research onion provides a logical structure for moving from philosophical assumptions to practical analytical techniques. The selected positions are summarized below.

Onion layer	Selected position	Justification
Research philosophy	Positivism	The study represents motivation and performance numerically and applies explicit statistical decision rules.
Approach to theory	Deductive	A positive hypothesis derived from motivation and performance literature is tested with observed survey data.
Methodological choice	Mono-method quantitative	The project analyzes numeric item responses and composite scores.
Research strategy	Secondary survey analysis	An existing anonymized questionnaire dataset is reanalyzed transparently.
Time horizon	Cross-sectional	Each employee was surveyed once during June–July 2020.
Techniques	Reproducible statistical analysis	Data screening, scoring, descriptive statistics, reliability, factorability, correlation, and regression are implemented consistently.

Research Philosophy and Deductive Approach

A positivist orientation is suitable because the research questions concern measurable levels, relationships, and predictive contribution. Although motivation and self-reported performance reflect personal experiences, standardized items permit the same scoring rules to be applied to every participant. The analysis therefore emphasizes transparent evidence rather than the researcher's subjective impressions.

The deductive approach begins with the hypothesis that higher employee motivation is associated with higher employee performance. Prior longitudinal meta-analytic evidence indicates that work motivation predicts later job performance even after earlier performance is controlled [1]. A broader meta-analysis also finds that intrinsic motivation and extrinsic incentives jointly predict performance [4]. The present dataset is used to evaluate whether its observed pattern is consistent with this expectation.

Quantitative Strategy and Time Horizon

A mono-method quantitative strategy is used because the source contains standardized numerical responses. The design enables frequencies, means, reliability estimates, correlations, and regression coefficients to be calculated. It does not provide interview narratives that explain why individual employees felt energized or performed well; such explanations are recommended for future qualitative or mixed-method research.

The time horizon is cross-sectional. Every respondent contributed one record during the original data-collection period. Cross-sectional evidence can establish covariation but cannot determine whether motivation preceded performance. References to “impact” in the title therefore describe the tested predictive model, while the conclusion preserves cautious, noncausal wording.

Research Population, Sampling Methods, and Technique

Target Population and Study Context

The source study focused on working adults in Saudi Arabia and Yemen. Participants represented multiple employment and educational backgrounds. For this project, the accessible analytical population is the set of employees whose complete, anonymized responses were retained in the published workbook. The context is important: the survey was conducted during the COVID-19 period, when stress, work arrangements, and labour-market conditions may have influenced motivation and performance.

Sampling Method

The original researchers used purposive and snowball sampling [8]. Purposive access was used to reach people who were employees and therefore relevant to the study. Snowball recruitment enabled initial contacts to share the survey with additional eligible participants. Both are non-probability techniques; therefore, individual selection probabilities were unknown and the sample should not be treated as nationally representative.

Sample Size and Retention

The source reports that 950 questionnaires were distributed and 307 usable responses remained after screening and cleaning. The present project analyzes all 307 published complete cases. This sample is sufficient for the specified descriptive, reliability, correlation, and one-predictor regression procedures, but sample adequacy does not remove selection bias.

Sampling feature	Value	Interpretation
Geographical setting	Saudi Arabia and Yemen	Results should be interpreted within the two-country and pandemic-period context.
Original technique	Purposive and snowball sampling	Efficient access to employees, but not a probability sample.
Questionnaires distributed	950	The starting recruitment volume reported by the source.
Usable published cases	307	All retained complete records are included in the reanalysis.
Unit of analysis	Individual employee	Composite scores represent each respondent’s motivation and self-reported performance.

Data Collection Method

Original Survey Administration

The data were originally obtained through a structured questionnaire. The source paper states that the survey was administered during June–July 2020 and that the final workbook contained anonymized responses from 307 employees [8]. The questionnaire included demographic background, feelings about work and COVID-19, performance, motivation, family commitment, job satisfaction, and psychological state of mind. Only the demographic fields and the two variable sections required for this project are analyzed.

Secondary-Data Retrieval

The present researcher downloaded two supplementary files linked to the open-access article: the Microsoft Excel workbook containing respondent-level data and the PDF questionnaire defining the item wording and response scales. The workbook includes three header rows: section names, item codes, and full question wording. These headers were checked against the questionnaire before scoring.

An important reproducibility detail is that the workbook's Q26–Q31 order differs from the numbering sequence in the printed questionnaire. For that reason, reverse-scoring decisions follow the full wording attached to each workbook column, not an assumed numerical sequence. This check prevents positive items from being accidentally reversed.

Data Integrity and Ethics

No names, telephone numbers, employee numbers, or exact workplace identifiers appear in the analysis file. The project does not attempt to identify participants or contact them. The dataset is used under the article's open-access terms, and the original source is cited in every assignment. Results are reported in aggregate.

Because the project uses previously collected anonymized data, it does not claim that the student obtained new consent or personally surveyed 307 employees. Academic integrity is preserved by distinguishing the original investigators' data collection from the student's secondary analysis. Any institutional requirement for ethics or instructor approval should still be followed before submission.

Step	Activity	Quality control
1	Retrieve source files	Use the supplementary workbook and questionnaire linked to the published article.
2	Verify structure	Match section labels, item codes, wording, and response ranges.
3	Select variables	Retain demographics, Q21–Q25, and Q26–Q31 only.
4	Convert to numeric	Treat nonnumeric values as missing and verify permitted ranges.
5	Reverse-score	Use item wording and scale-specific formulas rather than item-number assumptions.
6	Construct composites	Calculate respondent means only after all required items are scored consistently.
7	Analyze and report	Run a saved script, preserve outputs, and report limitations as well as significant findings.

Types of Data

The project uses secondary quantitative microdata and secondary academic literature. The microdata consist of participant-level questionnaire responses originally collected by Mgammal and Al-Matari [8]. The literature includes peer-reviewed theoretical reviews, meta-analyses, measurement research, and the data article itself.

Data type	Content	Source	Purpose
Secondary quantitative microdata	Demographics and item responses for 307 employees	Published Excel workbook	Describe the sample, build composites, and test the hypothesis
Secondary instrument documentation	Question wording, scale anchors, and construct sections	Published questionnaire PDF	Verify scoring and interpret the measures
Secondary literature	Theory, prior evidence, and measurement context	Peer-reviewed academic publications	Develop the framework and interpret results

Demographic categories such as gender, marital status, education, and employment status are nominal. Age and organizational tenure are ratio-level numeric variables. Individual Likert-type item responses are ordinal; the multi-item mean scores are treated as approximately continuous for descriptive and regression analysis, with their limitations acknowledged.

Statistical Analysis Procedures

All analyses are conducted through a saved, reproducible script. Tests use a two-tailed significance level of 0.05. The workflow moves from screening and scoring to sample description, measurement assessment, descriptive results, and hypothesis testing.

Data Screening and Coding

Workbook values are converted to numeric format and checked against their permitted ranges. The 307 published records contain complete values for the selected variables, so the main analysis uses complete cases without imputation. Motivation responses must fall from 1 to 7, and performance responses must fall from 1 to 4.

Negative motivation items Q27, Q28, and Q31 are recoded as $8 - x$. Negative performance items Q21, Q23, and Q24 are recoded as $5 - x$. The scored items are then averaged within each construct. This procedure makes high composite scores directionally consistent.

Sample Profile

Frequencies and percentages describe gender, marital status, level of education, and employment status. Means and sample standard deviations summarize age and organizational tenure. This profile identifies important sample concentrations and supports cautious evaluation of representativeness.

Validity and Reliability

Corrected item–total correlations evaluate whether each item is consistent with the remaining items in its scale. Factorability is assessed with the Kaiser–Meyer–Olkin measure and Bartlett’s test of sphericity. KMO values are interpreted cautiously, with approximately 0.60 or higher normally preferred; a significant Bartlett test indicates that the correlation matrix is not an identity matrix.

Cronbach's alpha estimates internal consistency for each composite. Values near or above 0.70 are commonly considered acceptable, but alpha depends on item count and dimensionality. A weak alpha is reported honestly rather than hidden. Where reliability is low, the hypothesis result is treated as tentative because measurement error can weaken or distort estimated relationships.

Descriptive Statistics and Research Questions

For both composites, the analysis reports sample size, mean, standard deviation, minimum, and maximum. RQ1 is answered by the motivation mean on its 1–7 scale, whose neutral midpoint is 4. RQ2 is answered by the performance mean on its 1–4 scale, whose midpoint is 2.5. Exact values are emphasized instead of applying arbitrary labels across scales with different ranges.

Correlation and Hypothesis Testing

Pearson's correlation coefficient assesses the direction and strength of the relationship between the two composites. A scatterplot is used to inspect whether a linear summary is reasonable and to identify extreme patterns. The principal hypothesis is then tested with simple ordinary least squares regression:

$$EP_i = \beta_0 + \beta_1 EM_i + \varepsilon_i$$

where EP_i is the employee-performance score for respondent i , EM_i is the employee-motivation score, β_0 is the intercept, β_1 is the unstandardized slope, and ε_i is the error term.

The regression report includes the intercept, unstandardized slope, standard error, standardized beta, t statistic, p value, 95% confidence interval, R^2 , adjusted R^2 , root mean squared error, and overall F statistic. H1 is supported when the motivation slope is positive and statistically significant at $p < 0.05$. Statistical significance is interpreted separately from practical importance; a small R^2 indicates limited explanatory power even when the p value is significant.

Purpose	Variables	Procedure	Output / decision
Describe participants	Demographics, age, tenure	Frequencies, percentages, means, SDs	Sample profile and concentration
Assess measurement quality	Q21–Q31 scored items	Item–total correlation, KMO, Bartlett, alpha	Factorability and internal consistency
Answer RQ1–RQ2	Motivation and performance composites	Mean, SD, range	Observed levels on original scales
Answer RQ3	Motivation with performance	Pearson correlation	Direction, magnitude, and p value
Test H1	Motivation predicting performance	Simple OLS regression	Positive slope with $p < 0.05$; report confidence interval and R^2

Methodological Limitations and Quality Controls

The main limitations are the cross-sectional design, non-probability sampling, self-report measurement, pandemic-period context, and the use of data from only two countries. The source's

motivation items emphasize energy and affect rather than the full multidimensional range of autonomous and controlled work motivation. The performance items are self-evaluations and do not replace supervisor ratings or objective productivity records.

The project addresses these boundaries through several controls. Full item wording is checked before recoding. The scoring and analysis script is saved for reproducibility. All 307 usable records are included, reducing selective case removal. Reliability and factorability are assessed before the regression is interpreted. Effect size is discussed alongside statistical significance. The report states the weak reliability of the performance measure and does not alter or omit inconvenient results.

Conclusion

This chapter presented a positivist, deductive, mono-method quantitative reanalysis of an open cross-sectional employee survey. The analytical sample consists of 307 anonymized employee records collected in Saudi Arabia and Yemen through purposive and snowball methods during June–July 2020. Motivation is measured with six seven-point items, while performance is measured with five four-point items. After wording-based reverse scoring, the study uses descriptive statistics, corrected item–total correlations, KMO, Bartlett’s test, Cronbach’s alpha, Pearson correlation, and simple regression. The methodology provides a transparent bridge from the research framework to the results in Assignment 3 while preserving the limits of secondary, self-report, cross-sectional data.

Statistical Analysis and Discussion of Findings

Introduction

This chapter reports the statistical analysis used to examine the relationship between employee motivation and employee performance. It presents the data source and preparation procedures, describes the sample, evaluates the measurement properties of the motivation and performance scales, answers the research questions, tests the main hypothesis, and connects the findings with the literature reviewed in Assignment 1. The analysis was conducted using a reproducible Python script so that all scoring and calculations can be checked and repeated.

The chapter uses a real, openly available secondary dataset published by Mgamal and Al-Matari [8]. The original cross-sectional survey was administered to employees in Saudi Arabia and Yemen during June and July 2020. The public dataset contains 307 usable responses after the source study's screening procedures. The pandemic context and non-probability sampling limit generalization, but the dataset provides transparent empirical evidence suitable for demonstrating the statistical procedures required by the project.

Interpretive Boundary

The analysis identifies association and statistical prediction, not definitive causation. The dataset is cross-sectional and self-reported. In addition, the employee-performance scale showed weak internal consistency; therefore, its results must be interpreted as exploratory evidence rather than a precise estimate of a universal effect.

Data Source, Preparation, and Scoring

The source questionnaire includes six work-motivation items measured on a seven-point response scale and five work-performance items measured on a four-point response scale. The response anchors follow the source questionnaire. The public workbook and questionnaire were retained with the project files, and no observations were invented or manually altered.

Three negatively phrased motivation items were reverse-scored: feeling downhearted, feeling bothered, and feeling tired or exhausted. Three negatively phrased performance items were also reverse-scored: difficulty completing work on time, leaving tasks until the last minute, and disappointment with one's performance. After reverse scoring, higher values consistently represent stronger motivation or better performance. Each composite score is the arithmetic mean of its valid items.

Construct	Items	Native scale	Reverse-scored items	Composite interpretation
Employee motivation	6	1–7	Q27, Q28, Q31	Higher mean = stronger work motivation
Employee performance	5	1–4	Q21, Q23, Q24	Higher mean = better self-reported performance

The cleaned dataset contained complete values for the eleven analyzed items, producing an analytical sample of $N = 307$. Descriptive statistics, Cronbach's alpha, corrected item-total correlations, the Kaiser–Meyer–Olkin (KMO) measure, Bartlett's test of sphericity, Pearson's

correlation, and ordinary least-squares regression were calculated. Statistical significance was evaluated using a two-tailed $\alpha = .05$ criterion.

Sample Profile

Table 4.2 summarizes the participant characteristics available in the public dataset. The sample was predominantly male and full-time employed. More than half of participants reported college or university education. The average participant age was 38.05 years, and average organizational tenure was 11.53 years.

Characteristic	Category / statistic	<i>n</i>	Percentage
Gender	Male	278	90.6%
	Female	29	9.4%
Employment status	Full-time	247	80.5%
	Part-time	60	19.5%
Education	Secondary school	107	34.9%
	Professional training	15	4.9%
	College / university	167	54.4%
	PhD	18	5.9%
Marital status	Married	260	84.7%
	Single	46	15.0%
	Divorced / separated	1	0.3%

Continuous characteristic	<i>N</i>	Mean	SD	Observed range
Age (years)	307	38.05	6.88	25–65
Organizational tenure (years)	307	11.53	7.90	1–43

The demographic concentration should be considered when interpreting the results. In particular, the high proportion of male and full-time employees means the results may not represent the experiences of more gender-balanced workforces or employees in less stable employment arrangements. The sample nevertheless includes variation in age, education, and tenure, which provides a useful employee-level dataset for the present analysis.

Validity and Reliability Tests

Construct Adequacy

The KMO measure and Bartlett's test were used to assess whether the inter-item correlation matrices contained sufficient shared structure for construct analysis. The motivation scale produced a KMO value of .750, indicating adequate common variance. Bartlett's test was statistically significant, $\chi^2(15) = 833.28, p < .001$, showing that the motivation correlation matrix was not an identity matrix.

The performance scale produced a KMO value of .552. This exceeds the minimum value of .50 but is only marginal, suggesting that the five performance items do not form a particularly strong common

structure. Bartlett's test remained significant, $\chi^2(10) = 198.84, p < .001$. Thus, the performance items are related, but their construct adequacy is weaker than that of the motivation items.

Scale	KMO	Bartlett χ^2	df	<i>p</i>
Employee motivation	.750	833.28	15	< .001
Employee performance	.552	198.84	10	< .001

Corrected item–total correlations provided an additional item-level check. Motivation-item correlations ranged from .507 to .723, which indicates that every motivation item contributed meaningfully to the shared composite. Performance-item correlations ranged from .155 to .363. Two performance items were below .20, indicating weak alignment with the remaining performance indicators.

Internal Consistency Reliability

Cronbach's alpha for the six-item motivation scale was .824, exceeding the conventional .70 guideline and indicating good internal consistency. The motivation composite can therefore be interpreted with reasonable confidence in this sample.

Cronbach's alpha for the five-item employee-performance scale was .489, which is below the conventional acceptable level. The performance composite is retained because it reproduces the publicly documented instrument and allows transparent comparison with the source data, but the low alpha increases measurement error and weakens confidence in the exact magnitude of relationships involving performance.

Scale	Items	Cronbach's α	Corrected item–total range	Interpretation
Employee motivation	6	.824	.507–.723	Good internal consistency
Employee performance	5	.489	.155–.363	Weak internal consistency; interpret cautiously

The weak performance reliability is not concealed or corrected through selective deletion after observing the results. Removing items solely to increase alpha could change the meaning of the source instrument and create an overly favorable result. A future primary study should pilot a broader performance instrument, revise ambiguous items, and confirm its factor structure before hypothesis testing.

Descriptive Statistics for the Research Variables

Research Question 1 asks: **What is the level of employee motivation among the surveyed employees?** The mean motivation score was 4.395 on the 1–7 scale ($SD = 1.342$). This value is above the scale midpoint of 4.00 and indicates a moderately positive level of motivation in the sample, although substantial variation existed between employees.

Research Question 2 asks: **What is the level of employee performance among the surveyed employees?** The mean performance score was 2.909 on the 1–4 scale ($SD = 0.562$). This mean is

above the midpoint of 2.50, indicating generally favorable self-reported performance. Because the performance scale reliability was low, this descriptive conclusion should be considered broad rather than highly precise.

Variable	<i>N</i>	Mean	SD	Minimum	Maximum
Employee motivation	307	4.395	1.342	1.00	7.00
Employee performance	307	2.909	.562	1.00	4.00

The two means should not be compared directly because the constructs use different native response scales. Their practical interpretation is therefore made relative to each scale's midpoint and range.

Relationship Between Motivation and Performance

Research Question 3 asks: **What relationship exists between employee motivation and employee performance?** Pearson's correlation showed a positive and statistically significant relationship, $r = .207$, $p < .001$, $N = 307$. Employees reporting higher motivation tended to report better performance. According to common effect-size conventions, the relationship is small rather than strong.



Figure 1: Employee motivation and employee performance, with fitted regression line

The scatterplot shows wide variation around the fitted line. This visual pattern is consistent with the small correlation and indicates that motivation alone does not account for most differences in performance. Factors such as ability, job resources, leadership, role clarity, working conditions, health, and measurement error may also influence employee performance.

Hypothesis Testing

The main hypothesis is:

H1

Employee motivation has a positive and statistically significant effect on employee performance.

A simple ordinary least-squares regression was estimated with employee performance as the dependent variable and employee motivation as the independent variable. The model was statistically significant, $F(1, 305) = 13.61, p < .001$. Motivation had a positive unstandardized coefficient of $B = 0.0866$ ($SE = 0.0235$), $t = 3.689, p < .001$, with a 95% confidence interval from .0404 to .1327. The standardized coefficient was $\beta = .207$.

The estimated regression equation is:

$$P_i = 2.528 + 0.0866M_i$$

A one-point increase in the motivation score was associated with an estimated .0866-point increase in the performance score. The model explained 4.27% of the variance in performance ($R^2 = .0427$; adjusted $R^2 = .0396$). Therefore, H1 is statistically supported because the coefficient is positive and its p value is below .05. However, the small R^2 and weak reliability of the performance scale mean that the finding should be described as modest exploratory support, not evidence that motivation is the only or dominant cause of performance.

Predictor	<i>B</i>	SE	β	<i>t</i>	95% CI for <i>B</i>	<i>p</i>
Constant	2.528	—	—	—	—	—
Motivation	.0866	.0235	.207	3.689	[.0404, .1327]	< .001

Model	<i>R</i>	R^2	Adjusted R^2	$F(1,305)$	<i>p</i>
Motivation → performance	.207	.0427	.0396	13.610	< .001

Hypothesis	Statistical evidence	Decision	Qualification
H1	$B = .0866, \beta = .207, p < .001$	Supported	Small effect; exploratory due to weak outcome reliability

Discussion and Connection with Previous Literature

The positive result is consistent with the central argument of the literature review: motivated employees are more likely to direct effort, persist, and use task-relevant strategies. Locke and Latham's goal-setting theory explains that clear and challenging goals can focus attention, mobilize effort, and increase persistence [5]. The present positive coefficient is compatible with this mechanism, although the dataset does not isolate goal clarity as a separate predictor.

The finding also aligns with self-determination theory, which distinguishes autonomous from controlled forms of motivation. Van den Broeck et al.'s meta-analysis found that identified regulation is particularly relevant to performance and organizational citizenship behavior, while intrinsic motivation is especially beneficial for well-being and favorable work attitudes [3]. The six-item

composite in the public dataset is broader and does not reproduce all multidimensional distinctions, so the present analysis cannot identify which motivational type produced the association.

Cerasoli, Nicklin, and Ford's forty-year meta-analysis showed that intrinsic motivation and extrinsic incentives jointly predict performance, with intrinsic motivation contributing especially to performance quality and incentives contributing more to quantity [4]. The current small positive relationship is compatible with their conclusion that motivation matters but operates alongside other determinants.

The present result is also directionally consistent with Wang, Luan, and Ma's meta-analytic review of longitudinal evidence. Their cross-lagged analysis found that earlier work motivation positively predicted later job performance, whereas earlier performance did not significantly predict later motivation [1]. Their longitudinal evidence is methodologically stronger for temporal direction than the current cross-sectional analysis. The current study should therefore be viewed as contextual supporting evidence rather than an independent causal test.

The small R^2 is theoretically reasonable. Motivation is one input into performance, not a complete explanation. Employees may be highly motivated but constrained by inadequate resources, unclear procedures, insufficient skills, poor health, or external disruption. The source data were collected during the COVID-19 period, when employees in Saudi Arabia and Yemen faced unusual work and family pressures [8]. These conditions may have altered both motivation and performance and may help explain the dispersed pattern.

Managerial Implications

Managers should not interpret the significant result as justification for a single reward program. The literature suggests that a balanced motivation system is more appropriate. Meaningful work, autonomy, competence development, fair recognition, useful feedback, and clear goals can support sustained motivation. External rewards should be fair and aligned with performance, but they should not replace supportive management or opportunities for employees to experience purpose and growth.

The modest effect indicates that managers should combine motivation practices with performance-enabling conditions. Training, role clarity, adequate staffing, technology, process design, psychological safety, and supervisor support may determine whether employee motivation can be translated into results. Management dashboards should therefore include both motivational indicators and operational constraints rather than assuming that low output always reflects low effort.

Measurement quality is also a practical lesson. The low performance alpha shows that short self-report instruments may not capture a coherent performance construct. Organizations evaluating interventions should combine validated employee surveys with objective indicators appropriate to the job, such as quality, timeliness, customer satisfaction, attendance, or goal completion.

Research Limitations, Recommendations, and Conclusion

Introduction

This chapter completes the project by integrating the empirical findings with the study's theoretical and practical objectives. It first summarizes the answers to the research questions and the hypothesis decision. It then explains the boundaries that limit interpretation, develops recommendations for managers and future researchers, and concludes with the study's overall contribution. The recommendations are intentionally proportional to the evidence: the observed motivation–performance relationship is statistically reliable in this sample, but it is small and is based on cross-sectional, self-reported secondary data.

Summary of Principal Findings

The study addressed three research questions. For RQ1, the employee-motivation mean was 4.395 on a 1–7 scale, which is above the midpoint of 4.00 and indicates a moderately positive level of motivation among the surveyed employees. For RQ2, the employee-performance mean was 2.909 on a 1–4 scale, which is above the midpoint of 2.50 and indicates generally favorable self-reported performance. These conclusions should be interpreted on each construct's own scale rather than by comparing the two raw means directly.

For RQ3, motivation and performance were positively related ($r = .207, p < .001$). The regression model also showed a positive motivation coefficient ($B = .0866, \beta = .207, p < .001$), with a 95% confidence interval from .0404 to .1327. H1 was therefore supported. Nevertheless, the model explained only 4.27% of performance variance. Motivation matters, but the evidence confirms that it is only one part of a wider performance system involving ability, resources, leadership, role clarity, technology, health, job design, and external conditions.

The results are consistent with the literature reviewed in Chapter Two. Goal-setting theory explains how motivation can focus attention, mobilize effort, and sustain persistence [5]. Self-determination theory emphasizes the quality of motivation and the roles of autonomy, competence, and relatedness [3]. Meta-analytic evidence also shows that intrinsic motivation and external incentives can jointly predict performance, although their relative importance varies by the quality or quantity of performance being assessed [4].

Research Limitations

Cross-Sectional and Nonexperimental Design

The source survey measured motivation and performance at one point in time. The analysis can therefore establish association and statistical prediction but cannot demonstrate temporal order or prove that higher motivation caused higher performance. Although longitudinal meta-analytic evidence supports a pathway from earlier motivation to later performance [1], that stronger design does not remove the causal limitation of the present dataset.

Non-Probability Sampling and Sample Composition

The original researchers used purposive and snowball sampling. Selection probabilities were unknown, and the 307 respondents should not be treated as a nationally representative sample. The sample was 90.6% male, 80.5% full-time employed, and 84.7% married. These concentrations restrict generalization to gender-balanced workforces, part-time or temporary employees, and populations with different demographic profiles.

Geographic and Historical Context

The data came from employees in Saudi Arabia and Yemen and were collected during the COVID-19 period in June–July 2020 [8]. National institutions, labor-market conditions, organizational practices, health concerns, and family pressures may have influenced both motivation and performance. The observed pattern may therefore differ in other countries or during more stable periods.

Self-Report and Common-Method Bias

Both variables were reported by the same employees in the same questionnaire. Self-reports can be affected by social desirability, mood, response style, and inaccurate self-assessment. Measuring predictor and outcome through one source can also inflate or distort their correlation. Supervisor assessments, peer ratings, customer outcomes, attendance, quality records, or objective productivity indicators were not available for comparison.

Measurement Limitations

The six-item motivation scale showed good reliability, but its wording focuses substantially on energy, affect, emotional stability, and exhaustion. It does not reproduce the full multidimensional structure of autonomous motivation, controlled motivation, and amotivation. The five-item performance scale showed weak internal consistency ($\alpha = .489$) and only marginal factorability (KMO = .552). Consequently, the exact size of the motivation–performance coefficient is less precise than it would be with a validated, multidimensional performance measure.

Restricted Explanatory Model

The simple regression included only employee motivation. Its R^2 of .0427 means that 95.73% of performance variance remained outside the model. This is not evidence that motivation is unimportant; rather, it demonstrates that employee performance is produced by multiple interacting conditions. The study could not estimate the effects of leadership, job resources, employee ability, role clarity, engagement, organizational support, job design, or sector.

Managerial Recommendations

Build a Balanced Motivation System

Managers should avoid treating motivation as a single financial-reward problem. Fair pay and transparent incentives remain important, but they should operate alongside meaningful work, recognition, autonomy, opportunities to develop competence, supportive relationships, and a clear connection between individual tasks and organizational purpose. A balanced system is more consistent with the evidence that intrinsic and extrinsic mechanisms can contribute differently to performance.

Translate Motivation into Enabling Conditions

Because motivation explained a small proportion of performance variance, managers should ensure that willing employees have the conditions required to perform. Organizations should review staffing, training, equipment, technology, workflow, decision authority, role clarity, and access to timely information. When motivated employees face operational barriers, additional incentives alone are unlikely to produce substantial improvement.

Strengthen Goal Clarity and Feedback

Employees should receive specific, challenging but attainable goals, together with timely feedback and the resources necessary for achievement. Goals should include quality and ethical standards, not only output volume. Regular developmental conversations can clarify priorities, identify obstacles, recognize progress, and connect individual contribution with team and organizational objectives.

Improve Recognition and Reward Fairness

Recognition should be timely, specific, and linked to observable contribution. Financial and non-financial rewards should be governed by transparent criteria to reduce perceptions of favoritism. Managers should also recognize collaborative behavior, learning, service quality, and problem solving so that employees are not encouraged to maximize one narrow metric at the expense of broader performance.

Use Better Performance Measurement

Organizations should not rely on a short self-report scale as the only indicator of performance. A practical measurement system should combine employee perspectives with supervisor ratings and job-relevant indicators such as timeliness, quality, customer satisfaction, attendance, safety, error reduction, or goal completion. Measures should be piloted for clarity and tested for reliability before they are tied to high-stakes decisions.

Priority	Recommended action	Example indicator	Review horizon
Motivational climate	Assess autonomy, recognition, meaningfulness, development, and supervisor support.	Pulse-survey trend and participation	Quarterly
Performance enablers	Remove barriers involving skills, staffing, tools, information, or role ambiguity.	Barrier resolution and process delay	Monthly
Goals and feedback	Set clear balanced goals and hold developmental feedback conversations.	Goal progress and feedback completion	Monthly / quarterly
Reward fairness	Publish criteria and audit recognition and reward decisions for consistency.	Employee fairness perception	Semiannual
Measurement quality	Combine validated surveys with supervisor and objective indicators.	Reliability and cross-source agreement	Annual

Recommendations for Future Research

Future studies should use longitudinal designs in which motivation is measured before later performance, or experimental and quasi-experimental evaluations of specific motivational interventions. This would strengthen temporal and causal inference. Probability-based or stratified sampling should be considered to improve gender, sector, employment-status, and national representation.

Researchers should use validated multidimensional motivation instruments capable of distinguishing intrinsic motivation, identified regulation, external regulation, and amotivation. Performance should be measured through multiple sources and a broader set of task, contextual, adaptive, and counterproductive behaviors. Cognitive interviews and pilot testing should be conducted before data collection, and confirmatory factor analysis should precede structural hypothesis testing when the sample permits.

A broader model should examine leadership, job resources, employee engagement, organizational support, ability, role clarity, and job design as predictors, mediators, or moderators. Multi-country studies could test whether culture, labor-market conditions, or institutional context alter the relationship. Qualitative interviews could also explain why employees feel motivated and which organizational barriers prevent motivation from becoming performance.

Conclusion

This project examined the impact of employee motivation on employee performance through a transparent secondary analysis of 307 employee responses from Saudi Arabia and Yemen. The study integrated self-determination theory, goal-setting theory, peer-reviewed evidence, a documented questionnaire, and reproducible statistical procedures. Employee motivation was moderately positive, and self-reported performance was generally favorable relative to their respective scale midpoints.

The central hypothesis was supported: motivation had a positive and statistically significant relationship with performance. However, the small effect, cross-sectional design, non-probability sample, pandemic context, self-report method, and weak performance reliability require careful interpretation. The evidence does not justify the claim that motivation alone causes high performance. Instead, it supports a systems perspective in which motivation works together with capability, resources, leadership, role clarity, job design, and measurement quality.

The principal management conclusion is therefore balanced. Organizations should invest in meaningful work, autonomy, competence development, fair recognition, clear goals, supportive supervision, and appropriate rewards, but these practices must be accompanied by the operational conditions that enable employees to succeed. When motivation and performance support are managed together, organizations are better positioned to translate employee effort into reliable and sustainable results.

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Appendix A: Research Questionnaire Extract

Instrument Source

The items below reproduce the two research-variable sections of the openly published employee questionnaire and follow the variable order in the accompanying workbook [8]. The original survey was anonymous and was administered to employees in Saudi Arabia and Yemen during June–July 2020.

Section A: Demographic Information

The source dataset records gender, age in years, marital status, organizational tenure in years, level of education, and employment status. No names or direct personal identifiers are included in the analysis file.

Section B: Employee Motivation

For each statement, select one response on a seven-point scale from 1 = Strongly Disagree to 7 = Strongly Agree.

Code	Statement	Response
Q26	I felt much energy, pep, or vitality during the past few weeks.	1 2 3 4 5 6 7
Q27	I felt downhearted and blue during the past few weeks.	1 2 3 4 5 6 7
Q28	I felt bothered during the past few weeks.	1 2 3 4 5 6 7
Q29	I was emotionally stable and sure of myself during the past few weeks.	1 2 3 4 5 6 7
Q30	I felt cheerful and lighthearted during the past few weeks.	1 2 3 4 5 6 7
Q31	I felt tired, worn out, used up, or exhausted during the past few weeks.	1 2 3 4 5 6 7

Section C: Employee Performance

For each statement, select one response on a four-point scale from 1 = Strongly Disagree to 4 = Strongly Agree.

Code	Statement	Response
Q21	It is not always easy for me to perform tasks on time.	1 2 3 4
Q22	When I have a deadline to perform a certain task, I always finish it on time.	1 2 3 4
Q23	I always leave my tasks to the last minute.	1 2 3 4
Q24	Sometimes, I feel disappointed with my performance at work because I know I could have done better.	1 2 3 4
Q25	I consider myself a fundamental worker in my organization because of the high quality of my performance.	1 2 3 4

Appendix B: Table of Research Instruments

Variable	Operational dimension	Items	Scale	Reverse-scored workbook items	Source
Employee Motivation	Energy, vitality, positive affect, and emotional stability	6	1–7	Q27, Q28, Q31	Mgammal & Al-Matari (2021)
Employee Performance	Self-reported task timeliness and work quality	5	1–4	Q21, Q23, Q24	Mgammal & Al-Matari (2021)

The instrument contains 11 substantive items for the two research variables. Negative statements are reverse-scored before computing arithmetic-mean composites, so higher scores consistently represent stronger motivation or better self-reported performance. Reliability and factorability are examined before hypothesis testing. The workbook column order—not the printed questionnaire number order—is used to preserve exact reproducibility.

Appendix C: Reproducibility Record

Component	Record
Dataset	Public supplementary workbook linked to Mgamal and Al-Matari (2021)
Questionnaire	Public supplementary questionnaire from the same article
Analytical sample	$N = 307$ complete employee responses
Scoring	Reverse scoring documented in the Data Source, Preparation, and Scoring section
Analysis	Python script: <code>analyze_data.py</code>
Outputs	JSON and CSV summaries plus the motivation–performance scatterplot
Decision criterion	Two-tailed $\alpha = .05$