

Chapter 3: Research Methodology

3.1. Introduction

This chapter presents the research methodology used to investigate the impact of manager–employee relationships on team performance at APSCO, Saudi Arabia. It outlines the research philosophy, approach, design, population and sampling, data collection methods, types of data, statistical analysis procedures, and ethical considerations. The methodological framework ensures alignment between the research objectives, hypotheses, and empirical testing procedures.

3.2. Operational Definitions of Variables

To ensure clarity and consistency, the key variables of this study are operationally defined as follows:

3.2.1. Manager–Employee Relationships (Independent Variable)

Manager–employee relationships refer to the perceived quality of interaction between supervisors and employees, measured through four dimensions:

- **Trust:** Employees’ confidence in their manager’s integrity and decision-making.
- **Communication:** The clarity, openness, and effectiveness of information exchange between manager and employee.
- **Managerial Support:** The extent to which employees perceive guidance, encouragement, and recognition from their manager.

- **Fairness:** Employees' perceptions of equitable treatment and unbiased managerial decisions.

Each dimension is measured using multiple Likert-scale items.

3.2.2. Team Performance (Dependent Variable)

Team performance refers to the collective effectiveness of work teams, measured through:

- Productivity
- Cohesion
- Collaboration
- Goal Achievement

All constructs are measured using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

3.3. Research Design (Research Onion Framework)

To ensure methodological coherence, this study adopts the Research Onion framework developed by Saunders, Lewis, and Thornhill (2019). The Research Onion provides a systematic and hierarchical approach to developing research methodology by moving through successive layers of philosophical and methodological decision-making.



Figure 1

Research Onion Framework Adopted in This Study

3.3.1. Research Philosophy: Positivism

This study adopts a positivist philosophy, which assumes that reality is objective and measurable. Since the research aims to examine statistical relationships between clearly defined variables, a positivist stance is appropriate. The researcher remains independent and uses quantitative methods to test hypotheses.

3.3.2. Research Approach: Deductive

A deductive approach is followed. The study begins with established theories such as Leader–Member Exchange (LMX) Theory and Social Exchange Theory, develops hypotheses (H1–H5), and tests them empirically using quantitative data.

3.3.3. Methodological Choice: Mono-Method Quantitative

This research employs a mono-method quantitative design using a structured questionnaire. This method allows statistical testing and objective measurement of relationships between variables.

3.3.4. Research Strategy: Survey

A survey strategy is used to collect standardized responses from employees at APSCO. Surveys are appropriate for collecting large amounts of structured data efficiently.

3.3.5. Time Horizon: Cross-Sectional

The study adopts a cross-sectional design, meaning data is collected at a single point in time. This design allows examination of relationships between variables simultaneously.

3.3.6. Data Collection & Analysis Techniques

Data are collected using a structured questionnaire and analyzed using Statistical Package for the Social Sciences (SPSS). Statistical techniques include descriptive statistics, reliability testing, correlation analysis, and regression analysis.

3.4. Research Population and Sampling Methods

3.4.1. Target Population

The target population consists of employees working in formal teams at APSCO, Saudi Arabia.

3.4.2. Sampling Technique

A simple random sampling technique will be used to reduce selection bias and enhance the generalizability of findings within APSCO.

3.4.3. Sample Size

The expected sample size ranges between 120 and 200 employees, which is adequate for multiple regression analysis and ensures sufficient statistical power for hypothesis testing.

3.5. Data Collection Method

Data will be collected using a structured self-administered questionnaire distributed electronically to employees at APSCO.

The questionnaire consists of:

- Section A: Demographic Information
- Section B: Manager–Employee Relationships
- Section C: Team Performance

All items use a 5-point Likert scale.

3.6. Types of Data

This study utilizes:

3.6.1. Primary Data

Collected directly from APSCO employees through questionnaires.

3.6.2. Secondary Data

Obtained from academic journals, textbooks, and prior research studies to support theoretical development.

3.7. Statistical Analysis Procedures

Data will be analyzed using Statistical Package for the Social Sciences (SPSS).

The following procedures will be conducted:

1. **Descriptive Statistics** – Mean, standard deviation, and frequency distribution.
2. **Reliability Analysis** – Cronbach's alpha ($\alpha \geq .70$ is considered acceptable for internal consistency).
3. **Correlation Analysis** – To examine relationships between variables.
4. **Multiple Regression Analysis** – To test hypotheses H1–H5.
5. **Significance Testing** – Using a significance level of $p < .05$.

These analyses will determine whether manager–employee relationship dimensions significantly predict team performance. Assumptions of regression analysis, including normality, linearity, homoscedasticity, and absence of multicollinearity, will be tested prior to hypothesis evaluation. This ensures the validity and robustness of the regression results.

3.8. Ethical Considerations

The study adheres to ethical research standards:

- Participation is voluntary.
- Informed consent is obtained.
- Anonymity is ensured.
- Data is used strictly for academic purposes.
- Participants may withdraw at any time.

3.9. Conclusion

This chapter outlined the methodological framework used to examine the relationship between manager–employee relationships and team performance. The Research Onion framework ensured systematic alignment between research philosophy, approach, strategy, and analytical techniques. The quantitative, cross-sectional survey design enables rigorous statistical testing of the proposed hypotheses. The following chapter presents the empirical results derived from statistical analysis and evaluates the proposed research hypotheses.