

Analysis of the Impact of Various Factors on the Attrition Rate of Middle-Level Management: A Study of Metro Rail Corporation

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Abstract

This research investigates the impact of various factors—income factors, work factors, and policy and norms—on the higher attrition rate of middle-level management within the Indian transportation industry. The study utilizes a mixed-methods approach, combining qualitative interviews and quantitative surveys to assess how these factors contribute to turnover intentions among middle-level managers. The findings indicate that income dissatisfaction, characterized by perceived inequity in compensation, is a significant driver of attrition. Additionally, high job stress and poor work-life balance, exacerbated by demanding work conditions, are found to be critical factors influencing managers' decisions to leave their positions. Moreover, dissatisfaction with career development opportunities and inconsistencies in the application of organizational policies further contribute to turnover. The research draws on equity theory, the job demands-resources (JD-R) model, and organizational justice theory to interpret the findings, offering a comprehensive understanding of the multifaceted nature of attrition in this sector. The study underscores the need to adopt a holistic approach to retention, addressing both financial and non-financial factors to reduce turnover and ensure a committed managerial workforce. The study's implications suggest that metro rail corporations must focus on competitive compensation, stress reduction, work-life balance, and fair policy implementation to retain their middle-level managers.

Keywords: Middle-level management, Attrition, Income factors, Work factors, Policy and norms, Indian transportation industry, Metro rail corporations

1. Introduction

The Indian transportation industry has seen rapid expansion over the past few decades, driven by the need to accommodate the growing urban population and reduce congestion in major cities. Metro rail systems have emerged as a critical solution to these challenges, providing efficient and reliable public transportation options in cities like Delhi, Mumbai, Bangalore, and Chennai. Metro rail corporations are not only essential for urban mobility but also play a significant role in the socio-economic development of these regions. However, these organizations face significant challenges in retaining middle-level management, a segment crucial for ensuring operational efficiency and organizational stability.

Middle-level managers are responsible for implementing strategic decisions, managing day-to-day operations, and bridging the communication gap between upper management and lower-level employees. Their role is critical, yet these managers often face a unique set of challenges that can lead to high attrition rates. Sengupta and Bhattacharya (2017) discuss the unique challenges faced by middle management in the urban transportation sector, which can be directly related to factors impacting job satisfaction, such as leadership support, communication, and decision-making processes. The attrition of middle-level management can result in operational disruptions, increased recruitment and training costs, and a loss of experienced personnel, all of which can adversely impact the overall performance of metro rail corporations.

1.1. Problem Statement

Despite the importance of middle-level managers in maintaining the operational success of metro rail corporations, there has been a noticeable increase in their attrition rates. Research by Kumar and Jain (2019) suggests that attrition in the Indian transportation industry is closely related to dissatisfaction with work factors, which directly impacts job satisfaction among middle management. Verma and Sinha (2020) focus on employee turnover in the Indian transportation industry, offering empirical insights into how work factors contribute to turnover, which can be directly linked to job satisfaction levels among middle management. This trend raises concerns about the factors contributing to

their decision to leave the organization. While various studies have explored employee turnover in the transportation industry, there is a need for a focused examination of the specific factors influencing middle-level management attrition in metro rail corporations.

1.2. Objectives

The primary objective of the research is to analyze the impact of various factors, including income factors, work factors, and policy and norms, on the higher attrition rate of middle-level management in the Indian transportation industry. The study aims to identify the key issues leading to attrition and provide actionable recommendations to metro rail corporations to enhance their employee retention strategies.

1.3. Research Questions

The research is guided by the following questions:

1. What income-related factors influence the attrition of middle-level managers in metro rail corporations?
2. How do work-related factors, such as job stress, work-life balance, and working conditions, affect the decision of middle-level managers to leave their positions?
3. What role do organizational policies and norms play in contributing to the higher attrition rate of middle-level management?

1.4. Scope and Limitations

This study focuses on middle-level management within metro rail corporations in major Indian cities, including Delhi, Bangalore, Mumbai, and Chennai. The research examines data from the past five years to identify trends and patterns in attrition rates. While the study provides valuable insights, it is limited to the specific context of metro rail corporations and may not fully capture the dynamics of other segments within the transportation industry.

1.5. Significance of the Study

Understanding the factors that contribute to the attrition of middle-level management is essential for the long-term success of metro rail corporations. By identifying the key drivers of attrition, this study provides a foundation for developing targeted retention strategies that address the specific needs and concerns of middle-level managers. Improved retention rates can lead to better operational efficiency, reduced costs, and enhanced organizational stability, ultimately contributing to the overall effectiveness of the Indian transportation industry.

1.6. Methodology Overview

This research employs a mixed-methods approach, combining quantitative and qualitative data collection techniques. Primary data will be collected through surveys and interviews with middle-level managers in selected metro rail corporations. Secondary data will include company reports, industry publications, and previous research studies. The data will be analyzed using statistical and thematic analysis techniques to identify the key factors influencing attrition rates. The rising attrition rates among middle-level management in metro rail corporations pose a significant challenge to the operational stability and efficiency of these organizations. By analyzing the impact of income factors, work factors, and organizational policies and norms, this study aims to provide a comprehensive understanding of the underlying causes of attrition. The findings will contribute to the development of effective retention strategies, ultimately supporting the long-term success of the Indian transportation industry.

2. Literature Review

This literature review is structured around three main themes: income factors, work factors, and policy and norms, providing a comprehensive understanding of how these factors contribute to attrition rates.

2.1. Income Factors

2.1.1. Financial Compensation and Job Satisfaction

Financial compensation has long been recognized as a critical determinant of job satisfaction and employee retention. According to Gupta and Kumar (2019), inadequate salary increments and the lack of performance-based incentives are primary drivers of employee turnover in the transportation sector. The study highlights that middle-level managers, in

particular, often feel undervalued when their compensation does not reflect their workload and responsibilities, leading to dissatisfaction and eventual resignation.

Similarly, Patel (2020) emphasizes that competitive salary packages and comprehensive benefits are essential for retaining skilled managers in metro rail corporations. The research suggests that organizations offering regular salary reviews and financial incentives are more successful in reducing attrition rates. This finding is consistent with Herzberg's Two-Factor Theory, which posits that salary is a hygiene factor that, when inadequate, can lead to employee dissatisfaction and turnover.

2.1.2. Income Disparity and Organizational Commitment

Income disparity within organizations is another factor contributing to higher attrition rates among middle-level managers. A study by Singh and Mehta (2021) reveals that significant pay gaps between different levels of management can create a sense of inequity, reducing organizational commitment. Middle-level managers who perceive themselves as underpaid compared to their senior counterparts are more likely to seek opportunities elsewhere, where their skills and experience are better compensated.

In the context of metro rail corporations, where hierarchical structures are prominent, addressing income disparity is crucial for enhancing employee morale and reducing turnover. Ensuring transparency in salary structures and providing clear pathways for financial progression can help mitigate negative effects of income disparity on retention.

2.2. Work Factors

2.2.1. Work-Life Balance and Job Stress

Work-life balance has emerged as a significant factor influencing job satisfaction and retention, particularly among middle-level managers who often juggle multiple responsibilities. Rao and Raj (2018) conducted a study on work-life balance in the Indian transportation industry, finding that middle-level managers frequently experience high levels of job stress due to long working hours, tight deadlines, and the pressure to meet organizational goals. This stress, compounded by insufficient time for personal life, leads to burnout and increased turnover intentions.

The authors argue that metro rail corporations need to implement more flexible working arrangements and provide support systems to help managers cope with job-related stress. This could include offering options for remote work, flexible schedules, and stress management programs. Such initiatives are crucial for improving work-life balance and reducing the likelihood of attrition.

2.2.2. Job Autonomy and Role Clarity

Job autonomy and role clarity are also critical factors that influence middle-level management attrition. Research by Deshpande and Sharma (2019) suggests that middle-level managers are more likely to stay with an organization if they have a clear understanding of their roles and responsibilities, coupled with the autonomy to make decisions within their scope of work. However, when managers feel micromanaged or experience role ambiguity, their job satisfaction diminishes, leading to higher turnover rates.

In metro rail corporations, where operations are often highly regulated and structured, ensuring that middle-level managers have sufficient autonomy and clarity in their roles can enhance job satisfaction and reduce attrition. Providing ongoing training and clear communication of job expectations are recommended strategies to address this issue.

2.3. Policy and Norms

2.3.1. Organizational Policies on Career Development

Organizational policies, particularly those related to career development, play a vital role in employee retention. Sharma (2021) argues that metro rail corporations often lack comprehensive career development programs that cater to the professional growth of middle-level managers. Without opportunities for advancement or skill enhancement, managers may feel that their career progression is stagnant, prompting them to leave for organizations that offer better growth prospects.

The study suggests that implementing robust career development plans, including regular training, mentoring, and clear promotion pathways, can significantly improve retention rates among middle-level management. Moreover, organizations that invest in the professional development of their employees are more likely to build a loyal and committed workforce.

2.3.2. Employee Engagement and Organizational Culture

Employee engagement and organizational culture are also crucial factors influencing attrition. Bhattacharya and Sen (2020) highlight that a positive organizational culture, characterized by strong employee engagement and a sense of belonging, can reduce turnover intentions. In contrast, a culture that fails to recognize and reward employee contributions can lead to disengagement and increased attrition.

In the context of metro rail corporations, fostering a culture of inclusivity, recognition, and open communication is essential for retaining middle-level managers. Regular feedback mechanisms, employee recognition programs, and initiatives to promote work-life balance are recommended to strengthen organizational culture and enhance employee engagement.

2.3.3. Policy Implementation and Consistency

Finally, the implementation and consistency of organizational policies are critical in shaping employee perceptions and behaviors. According to Mishra and Verma (2022), inconsistencies in policy application can lead to dissatisfaction and mistrust among employees, particularly in hierarchical organizations like metro rail corporations. Middle-level managers are more likely to remain with an organization that consistently applies its policies and treats all employees fairly.

Ensuring that policies are applied uniformly and transparently is crucial for maintaining trust and reducing turnover. Organizations should also regularly review and update their policies to reflect changing industry standards and employee needs.

The literature review reveals that income factors, work factors, and organizational policies and norms are significant contributors to the higher attrition rate of middle-level management in metro rail corporations within the Indian transportation industry. Financial compensation, work-life balance, job autonomy, career development opportunities, and organizational culture are all critical areas that need to be addressed to improve retention rates. By implementing strategies that focus on these factors, metro rail corporations can enhance job satisfaction, reduce turnover, and ultimately achieve greater organizational stability.

3. Objectives of Study:

1. To Investigate the Relationship Between Income Factors and Attrition Rates:

This objective aims to explore how satisfaction with compensation, perceived fairness of pay, and other income-related factors influence the decision of middle-level managers to leave their positions within the Metro Rail Corporation.

2. To Examine the Influence of Work Factors on Managerial Attrition:

The study seeks to understand the role of job stress, work-life balance, and workload in contributing to higher attrition rates among middle-level managers in the Indian transportation industry.

3. To Analyze the Impact of Organizational Policies and Norms on Retention:

This objective focuses on assessing how career development opportunities, consistency in policy application, and organizational norms affect the retention of middle-level managers.

4. To Identify Key Predictors of Attrition in Middle-Level Management:

By using quantitative and qualitative data, the study aims to identify and rank the most significant factors that predict the likelihood of middle-level managers leaving their positions.

5. To Provide Recommendations for Reducing Attrition Rates:

Based on the findings, the study intends to offer actionable recommendations to the Metro Rail Corporation for improving retention rates among middle-level managers by addressing the identified factors.

4. Research Methodology:

4.1. Research Design

The research adopts a mixed-methods approach, combining both quantitative and qualitative research designs. This approach allows for a comprehensive analysis of the factors influencing middle-level management attrition, providing both numerical data to identify patterns and trends, as well as qualitative insights to understand the underlying reasons for these trends.

- **Quantitative Research:** A descriptive research design is used to quantify the relationship between income factors, work factors, policy and norms, and attrition rates among middle-level managers. This involves the collection and analysis of numerical data through surveys and statistical methods.

- **Qualitative Research:** An exploratory research design is used to gain deeper insights into the personal experiences and perceptions of middle-level managers regarding their work environment and organizational policies. This involves conducting focus group discussions and semi-structured interviews to capture qualitative data.

4.2. Population and Sampling

Population

The target population for this study consists of middle-level managers working in metro rail corporations across major Indian cities, including Delhi, Bangalore, Mumbai, and Chennai. Middle-level managers are defined as those who hold managerial positions below senior management but above lower-level supervisory roles, typically responsible for implementing strategic decisions and managing operational functions.

4.2.1. Sampling Technique

A purposive sampling technique is employed to select the participants for both the qualitative and quantitative phases of the research. This non-probability sampling method is chosen because it allows for the selection of individuals who are most relevant to the research objectives, specifically those with at least one year of experience in middle-level management roles within metro rail corporations.

4.2.2. Sample Size

- **Quantitative Study:** A sample size of 150 middle-level managers is selected to ensure sufficient statistical power for the analysis. The sample size is determined based on the need to balance the precision of the results with the available resources and time constraints.
- **Qualitative Study:** A smaller sample size of 20-30 participants is selected for the qualitative phase, including 15-20 middle-level managers for interviews and 5-10 participants for focus group discussions. To reach data saturation this sample size is deemed sufficient, where no new insights or themes emerge.

4.3. Data Collection Methods

4.3.1. Primary Data

The primary data for this research are collected through surveys, interviews, and focus group discussions.

- **Surveys:** A structured questionnaire is developed to gather quantitative data on income factors, work factors, and policy and norms, as well as their impact on attrition intentions among middle-level managers. The survey includes both closed-ended and Likert scale questions to measure respondents' perceptions and experiences.
- **Interviews:** Semi-structured interviews are conducted to explore the qualitative aspects of middle-level managers' experiences with income, work conditions, and organizational policies. The interviews are designed to elicit detailed responses and provide a deeper understanding of the reasons behind attrition.
- **Focus Group Discussions:** Focus group discussions are held to facilitate a dialogue among middle-level managers, allowing them to share their perspectives and experiences in a group setting. This method helps to identify common themes and issues that may not be captured through individual interviews.

4.3.2. Secondary Data

Secondary data are collected from existing company reports, industry publications, government records, and previous research studies on employee retention and attrition in the transportation sector. This data provides a broader context for the primary data and helps to validate the findings.

4.4. Data Analysis Techniques

4.4.1. Quantitative Data Analysis

- **Descriptive Statistics:** Descriptive statistics, such as mean, median, mode, and standard deviation, are used to summarize the sample demographic characteristics and the key variables related to income factors, work factors, and policy and norms.
- **Correlation Analysis:** Pearson's correlation coefficient is used to examine the strength and direction of the relationship between the various factors and attrition rates among middle-level managers.
- **Regression Analysis:** Multiple regression analysis is conducted to identify the relative impact of income factors, work factors, and policy and norms on attrition rates. This analysis helps to determine which factors are the most significant predictors of turnover intentions.

4.4.2. Qualitative Data Analysis

- **Thematic Analysis:** The qualitative data from interviews and focus group discussions are analyzed using thematic analysis. This method involves coding the data to identify recurring themes, patterns, and insights related to income, work conditions, and organizational policies.
- **Content Analysis:** Content analysis is also employed to systematically categorize and interpret the qualitative data, allowing for the identification of key themes and the relationships between them.

4.5. Validity and Reliability

4.5.1. Validity

- **Content Validity:** The content validity of the survey and interview instruments is ensured by conducting a literature review and consulting with subject matter experts in the field of human resource management and organizational behavior. This process ensures that the instruments adequately cover all relevant aspects of income factors, work factors, and policy and norms.
- **Construct Validity:** Construct validity is established by testing the survey instrument in a pilot study with a small sample of middle-level managers. The pilot study helps to refine the questionnaire and ensure that the items accurately measure the constructs of interest.

4.5.2. Reliability

- **Internal Consistency:** The reliability of the survey instrument is assessed using Cronbach's alpha, to measure the internal consistency. A 0.7 or higher value of Cronbach's alpha is considered acceptable, which indicates that the survey items consistently measure the same underlying constructs.
- **Inter-rater Reliability:** For the qualitative analysis, inter-rater reliability is ensured by having multiple researchers independently code the data. The consistency between their coding is measured to ensure that the themes and patterns identified are reliable.

4.6. Ethical Considerations

This research adheres to ethical guidelines to protect the rights and well-being of the participants.

- **Informed Consent:** Participants are provided with detailed information about the study, including its purpose, methods, and potential risks. Informed consent is obtained from all participants before data collection begins.
- **Confidentiality:** The confidentiality of participants is maintained by anonymizing their responses and ensuring that no personally identifiable information is disclosed in the research findings.
- **Voluntary Participation:** Participation in the study is entirely voluntary, and participants are free to withdraw at any time without any consequences.

4.7. Limitations of the Study

While this research provides valuable insights into the factors contributing to the higher attrition rate of middle-level management in metro rail corporations, it has certain limitations:

- **Generalizability:** The findings may not be generalizable to other segments of the transportation industry or to middle-level managers in different countries or regions.
- **Cross-sectional Design:** The cross-sectional nature of the study limits the ability to establish causality between the factors and attrition rates. Longitudinal studies would be necessary to confirm causal relationships.
- **Response Bias:** The reliance on self-reported data may introduce response bias, as participants may provide socially desirable answers rather than their true opinions or experiences.

The research methodology outlined in this section is designed to provide a comprehensive analysis of the factors underlying the higher attrition rate of middle-level management in metro rail corporations. By combining qualitative and quantitative approaches, the study aims to identify key issues related to income, work conditions, and organizational policies, and to offer actionable recommendations for improving employee retention in the Indian transportation industry.

5. Data Analysis and Findings:

This section presents the data analysis and findings from the research that is divided into qualitative and quantitative analyses, followed by a discussion of the key findings.

5.1. Quantitative Data Analysis

5.1.1. Descriptive Statistics

The survey data were analyzed using descriptive statistics to summarize the demographic characteristics of the respondents and the key variables of interest.

- **Demographic Profile:** The sample consisted of 150 middle-level managers, with 65% male and 35% female participants. The majority of the respondents (60%) were aged between 35 and 45 years. In terms of experience, 45% of the participants had 5-10 years of experience in metro rail corporations, while 35% had 10-15 years of experience.
- **Income Factors:** The average annual income of the respondents was ₹12-15 lakhs, with 70% of the managers expressing dissatisfaction with their current salary packages. Approximately 65% reported that their salary did not reflect their workload and responsibilities.
- **Work Factors:** Around 60% of respondents reported experiencing high levels of job stress due to long working hours and tight deadlines. Only 30% of managers felt they had a good work-life balance, while 55% reported moderate to high levels of job autonomy.
- **Policy and Norms:** A significant portion (70%) of the respondents indicated that they were dissatisfied with the career development opportunities provided by their organizations. Furthermore, 65% believed that the organizational policies were inconsistently applied, leading to feelings of inequity and unfairness.

5.1.2. Correlation Analysis

Pearson's correlation coefficient was used to examine the relationships between income factors, work factors, policy and norms, and attrition intentions among middle-level managers.

- **Income Factors and Attrition:** A moderate positive correlation ($r = 0.45$, $p < 0.01$) was found between income dissatisfaction and attrition intentions. Managers who were dissatisfied with their salaries were more likely to consider leaving their jobs.
- **Work Factors and Attrition:** Job stress was strongly correlated with attrition intentions ($r = 0.58$, $p < 0.01$), indicating that higher stress levels significantly increased the likelihood of turnover. Conversely, job autonomy had a negative correlation with attrition ($r = -0.42$, $p < 0.01$), suggesting that greater autonomy reduced the likelihood of managers leaving their positions.
- **Policy and Norms and Attrition:** Dissatisfaction with career development opportunities showed a strong positive correlation with attrition intentions ($r = 0.55$, $p < 0.01$). Inconsistent policy application also had a moderate positive correlation with attrition ($r = 0.40$, $p < 0.01$), indicating that perceived inequity in policy implementation contributed to turnover intentions.

5.1.3. Regression Analysis

Multiple regression analysis was conducted to identify the relative impact of income factors, work factors, and policy and norms on attrition rates.

- **Model Summary:** The regression model was significant ($F(3, 146) = 28.45$, $p < 0.01$) with an R^2 value of 0.52, indicating that 52% of the variance in attrition intentions could be explained by the independent variables.
- **Income Factors:** Income dissatisfaction had a significant positive effect on attrition intentions ($\beta = 0.32$, $p < 0.01$), suggesting that managers who were dissatisfied with their income were more likely to leave.
- **Work Factors:** Job stress was the strongest predictor of attrition ($\beta = 0.40$, $p < 0.01$), while job autonomy had a significant negative effect ($\beta = -0.28$, $p < 0.01$).
- **Policy and Norms:** Dissatisfaction with career development opportunities ($\beta = 0.35$, $p < 0.01$) and inconsistent policy application ($\beta = 0.26$, $p < 0.05$) both had significant positive effects on attrition intentions.

5.2. Qualitative Data Analysis

5.2.1. Thematic Analysis

The qualitative data collected through focus group discussions and interviews were analyzed using thematic analysis to identify recurring themes related to income, work factors, and organizational policies.

- **Theme 1: Financial Compensation and Perceived Inequity:** Many managers expressed feelings of being underpaid compared to the industry standards, with some highlighting the lack of transparency in salary increments and bonuses. The perceived inequity in pay led to frustration and a desire to seek better opportunities elsewhere.

- **Theme 2: Job Stress and Work-Life Imbalance:** Job stress emerged as a dominant theme, with managers citing long hours, unrealistic deadlines, and the constant pressure to perform as key contributors. The lack of work-life balance was particularly pronounced among managers with families, who struggled to maintain a healthy balance between work and personal life.
- **Theme 3: Lack of Career Development Opportunities:** A recurring concern was the limited opportunities for career growth within the organization. Many managers felt that there was no clear pathway for advancement, and that the organization did not invest in their professional development. This lack of growth prospects was a major factor driving attrition.
- **Theme 4: Inconsistent Policy Application:** Managers frequently mentioned the inconsistent application of organizational policies, particularly regarding promotions and benefits. This inconsistency led to perceptions of unfairness and a lack of trust in the organization’s leadership.

5.2.2. Content Analysis

Content analysis of the qualitative data further revealed that managers who perceived their organizations as lacking in fairness and transparency were more likely to harbor intentions to leave. The desire for better compensation, a healthier work-life balance, and clearer career progression opportunities were common motivators for considering alternative employment.

5.3. Validity and Reliability

For ensuring the generalizability and credibility of the results the reliability and validity of the data analysis and findings is critical. The following table summarizes the key metrics.

Table 1: Validity and Reliability Metrics in Data Analysis

Measure	Type of Validity / Reliability	Method Employed	Result/Value
Content Validity	Validity	Expert review of survey items and interview questions to ensure comprehensive coverage of relevant factors.	High (Confirmed by expert panel feedback)
Construct Validity	Validity	Factor analysis (both exploratory and confirmatory) to verify that survey items appropriately load on their intended constructs.	All factor loadings > 0.60, p < 0.01
Internal Validity	Validity	Control of confounding variables (e.g., age, gender, experience) in regression analysis to ensure accurate attribution of effects.	Controlled; significant predictors identified
External Validity	Validity	Representative sampling (N = 150) and analysis of applicability to other sectors/regions.	Moderate (Generalizability limited to similar settings)
Internal Consistency	Reliability	Cronbach’s alpha calculated for each scale (e.g., Satisfaction with Compensation, Job Stress, Work-Life Balance).	$\alpha > 0.70$ for all scales
Test-Retest Reliability	Reliability	Inferred from the established reliability of scales used in prior studies; not directly measured due to cross-sectional design.	High (based on previous literature)
Inter-Rater Reliability	Reliability (Qualitative Data)	Cohen’s kappa statistic for agreement between coders of interview and open-ended survey data.	$\kappa = 0.75$ (indicating substantial agreement)

Explanation:

1. Content Validity:

High: Content validity was confirmed through expert reviews, ensuring that the survey and interview instruments covered all relevant factors impacting middle-level management attrition.

2. Construct Validity:

Factor Analysis: Both exploratory and confirmatory factor analyses showed that the survey items loaded correctly on their intended constructs, with all factor loadings being significant (> 0.60), supporting the construct validity of the measurement tools.

3. Internal Validity:

Controlled Confounding Variables: By controlling for potential confounding variables in the regression analysis, the study ensured that the relationships identified between independent and dependent variables were not spurious.

4. External Validity:

Moderate: The study's findings are generalizable to middle-level managers in similar urban transportation settings but may not extend to vastly different industries or regions.

5. Internal Consistency:

Cronbach's Alpha: Internal consistency reliability was confirmed with Cronbach's alpha values exceeding 0.70 for all scales, indicating that the items within each scale were consistently measuring the same construct.

6. Test-Retest Reliability:

Inferred: Although not directly measured in this cross-sectional study, the reliability of the scales was inferred based on their validated use in previous research.

7. Inter-Rater Reliability:

Cohen's Kappa: For the qualitative data, substantial inter-rater reliability was achieved ($\kappa = 0.75$), ensuring that the coding of themes and categories was consistent across different researchers.

5.4. Findings

The data analysis yielded several key findings regarding the factors underlying the higher attrition rate of middle-level management in metro rail corporations:

- **Income dissatisfaction is a significant driver of attrition:** Managers who feel that their financial compensation does not align with their responsibilities are more likely to consider leaving the organization.
- **Job stress is a critical factor in turnover intentions:** High levels of job stress, coupled with poor work-life balance, are strongly associated with higher attrition rates among middle-level managers.
- **Career development opportunities are crucial for retention:** The lack of clear pathways for career advancement and professional development significantly contributes to turnover intentions.
- **Inconsistent policy application undermines organizational commitment:** Perceived inequities and inconsistencies in the application of organizational policies lead to dissatisfaction and a higher likelihood of turnover.

The findings of this study highlight the importance of addressing income factors, work factors, and policy and norms to reduce the attrition rate of middle-level management in metro rail corporations. Organizations need to ensure competitive and equitable compensation, foster a supportive work environment that balances job demands with personal life, and implement consistent and transparent policies that support career development. By addressing these key areas, metro rail corporations can improve employee retention and reduce the turnover of skilled middle-level managers.

6. Discussion:

This discusses the implications of the findings from the analysis of the impact of various factors—income factors, work factors, and policy and norms—underlying the higher attrition rate of middle-level management in the Indian transportation industry, specifically focusing on metro rail corporations within the context of existing literature, theoretical frameworks, and the practical implications for industry stakeholders.

6.1. Income Factors and Attrition

The study's findings reveal that income dissatisfaction is a significant driver of attrition among middle-level managers in metro rail corporations. This aligns with existing research that highlights the critical role of financial compensation in

employee retention (Gupta & Kumar, 2019). However, the study also indicates that income is not the sole factor contributing to turnover intentions.

Implications: The finding suggests that metro rail corporations need to reassess their compensation structures to ensure they are competitive and reflective of the responsibilities shouldered by middle-level managers. Beyond mere salary adjustments, organizations should consider introducing performance-based incentives and transparent bonus systems to address the perceived inequity in pay. This could mitigate feelings of under appreciation and reduce the likelihood of attrition.

Theoretical Context: According to equity theory (Adams, 1963), employees assess their compensation relative to their peers and based on their perceived input-to-output ratio. When managers perceive their compensation as unfair relative to their effort or compared to others, it can lead to dissatisfaction and increased turnover intentions. Therefore, ensuring perceived equity in pay is crucial for retaining talent.

6.2. Work Factors and Attrition

Poor work-life balance and high levels of job stress were found to be significant contributors to attrition among middle-level managers. These findings are consistent with the job demands-resources (JD-R) model, which suggests that high job demands, if not balanced with adequate resources, can lead to burnout and turnover (Demerouti et al., 2001).

Implications: Metro rail corporations must address the work-related stress experienced by middle-level managers to reduce turnover. Strategies could include offering greater job autonomy, implementing flexible work arrangements, and providing support through employee assistance programs. Additionally, organizations should promote a culture that values work-life balance, potentially through policies that limit excessive overtime and encourage regular breaks.

Theoretical Context: The JD-R model emphasizes the importance of balancing job demands with job resources to prevent burnout and attrition. The negative correlation between job autonomy and attrition intentions found in this study suggests that increasing managerial autonomy could serve as a resource that mitigates the adverse effects of high job demands.

6.3. Policy and Norms and Attrition

Dissatisfaction with career development opportunities and inconsistent application of organizational policies were identified as significant predictors of turnover intentions. These findings underscore the importance of clear and fair policies in retaining employees (Sharma, 2021).

Implications: Metro rail corporations should focus on developing transparent and consistent policies that are fairly applied across the organization. This includes providing clear career development pathways, offering regular training and development programs, and ensuring that promotions and other benefits are awarded based on merit rather than favoritism. Addressing these areas could enhance employees' commitment to the organization and reduce turnover.

Theoretical Context: Organizational justice theory posits that employees' perceptions of fairness in decision-making processes (distributive, procedural, and interactional justice) are crucial for their organizational commitment (Colquitt et al., 2001). Inconsistent policy application, as revealed in the study, can undermine trust in organizational leadership and lead to disengagement and turnover.

6.4. Integrated Discussion and Practical Recommendations

The integrated analysis of income factors, work factors, and policy and norms highlights the complex interplay between these variables in influencing attrition rates among middle-level managers in the Indian transportation industry.

- **Holistic Approach to Retention:** The findings suggest that metro rail corporations cannot rely on a single strategy to reduce attrition. Instead, they must adopt a holistic approach that addresses both financial and non-financial factors. For example, while competitive salaries are necessary, they are insufficient without a supportive work environment and clear, fair policies.
- **Customization of Retention Strategies:** Different managers may prioritize different factors depending on their personal and professional circumstances. Therefore, organizations should consider customizing retention strategies to address the specific needs of different manager groups. For instance, younger managers might prioritize career development opportunities, while more experienced managers might value job autonomy and work-life balance.
- **Continuous Monitoring and Feedback:** To maintain low attrition rates, metro rail corporations should establish mechanisms for continuous monitoring of employee satisfaction and attrition risk. Regular surveys and feedback

sessions can help organizations stay attuned to the evolving needs and concerns of their middle-level managers, allowing for timely interventions.

6.5. Comparison with Existing Literature

The study's findings are largely consistent with existing literature on employee retention in high-stress industries. For example, the importance of work-life balance and job stress identified in this study aligns with Rao and Raj's (2018) research, which also emphasized these factors in the Indian transportation sector. Similarly, the significance of fair and transparent policies echoes the findings of Mishra and Verma (2022), who highlighted the role of consistent policy implementation in retaining employees.

However, this study extends the literature by specifically focusing on middle-level management within the metro rail sector, a group that has received relatively less attention in previous research. By doing so, it provides industry-specific insights that can inform tailored retention strategies.

6.6. Limitations and Future Research Directions

While this study provides valuable insights, it also has limitations that should be acknowledged. The sample was limited to middle-level managers in metro rail corporations, which may limit the generalizability of the findings to other sectors or managerial levels. Additionally, the study relied on self-reported data, which may be subject to response biases.

Future Research Directions: Future studies could explore similar factors in different segments of the transportation industry or among different managerial levels to compare and contrast the findings. Longitudinal studies could also provide insights into how these factors influence attrition over time. Moreover, qualitative studies involving in-depth interviews could further explore the underlying reasons behind managers' perceptions and decisions to leave their organizations.

The discussion highlights the multifaceted nature of the factors influencing the higher attrition rate of middle-level management in the Indian transportation industry. Addressing these factors requires a comprehensive approach that considers income, work conditions, and organizational policies. By implementing targeted strategies that address these areas, metro rail corporations can improve retention rates and foster a more committed and satisfied managerial workforce.

7. Conclusion

This research aimed to analyze the impact of various factors—*income factors, work factors, and policy and norms*—underlying the higher attrition rate of middle-level management in the Indian transportation industry, with a specific focus on metro rail corporations. The findings reveal that the interplay of these factors significantly influences the decision of middle-level managers to leave their positions, highlighting the complex and multifaceted nature of attrition within this sector.

Key Findings

- Income Factors:** The study confirms that dissatisfaction with financial compensation is a significant driver of attrition among middle-level managers. While income is a critical factor, the perceived fairness of compensation relative to job demands and industry standards plays an even more crucial role in determining turnover intentions. This aligns with equity theory, which emphasizes the importance of perceived equity in compensation (Adams, 1963).
- Work Factors:** Poor work-life balance and high levels of job stress were identified as major contributors to turnover. The strong correlation between job stress and attrition intentions suggests that the demanding nature of middle-level management roles in the metro rail sector is a key factor in employees' decisions to leave. The JD-R model supports these findings, indicating that without adequate job resources, high job demands can lead to burnout and attrition (Demerouti et al., 2001).
- Policy and Norms:** The study found that dissatisfaction with career development opportunities and inconsistent policy application are significant predictors of attrition. Employees who perceive a lack of transparency and fairness in organizational policies are more likely to consider leaving. Organizational justice theory underscores the importance of fair and consistent policy implementation in retaining employees (Colquitt et al., 2001).

8. Practical Implications

The research highlights the need for metro rail corporations to adopt a holistic approach to employee retention, addressing both financial and non-financial factors. Competitive salaries, though important, must be complemented by strategies that reduce job stress, improve work-life balance, and ensure the fair and consistent application of organizational policies. By focusing on these areas, organizations can enhance employee satisfaction, reduce turnover, and build a more committed managerial workforce.

9. Contributions to Literature

This study contributes to the existing literature on employee retention by providing specific insights into the factors driving attrition among middle-level managers in the Indian transportation industry. It extends the understanding of how income factors, work conditions, and organizational policies collectively influence turnover intentions, offering a more nuanced perspective on employee retention in a high-stress industry.

In conclusion, this research underscores the importance of addressing a combination of income factors, work factors, and policy and norms to reduce the high attrition rate of middle-level management in the Indian transportation industry. By adopting a comprehensive approach that considers the multifaceted nature of these factors, metro rail corporations can improve retention rates, ensuring a stable and committed management team that is essential for the long-term success of the organization.

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