International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 10 Issue: 03 | March - 2026 SJIF Rating: 8.659 ISSN: 2582-3930

Evaluating Quality of Work Life Paradigms and Their Impact on Sanitation Workers: Evidence from BBMP

Papanna. C
Research Scholar, Tumkur University, Tumakuru
Dr. Srinivasa Murthy M.D
Associate Professor in Commerce, Dept.of Studies and Research in Commerce, Tumkur University, Tumakuru.

Abstract

This study evaluates the influence of Quality of Work Life (QWL) paradigms on the occupational well-being of sanitation workers (Pourakarmikas) employed by Bruhat Bengaluru Mahanagara Palike (BBMP). The research focuses on key dimensions such as working conditions, compensation and job security, social inclusion, and health and safety. A quantitative research design was adopted, and primary data were collected from 200 respondents (both male and female) using a structured questionnaire. Statistical tools including descriptive analysis, factor analysis, Confirmatory Factor Analysis (CFA), and Structural Equation Modelling (SEM) were employed. The findings reveal that QWL significantly influences occupational well-being, with health and safety emerging as the most critical factor. The study provides policy-oriented recommendations to enhance the welfare and productivity of sanitation workers.

Keywords: *Quality of Work Life, Occupational Well-being, Sanitation Workers, BBMP, CFA, SEM, Public Sector*

1. Introduction

Quality of Work Life (QWL) has emerged as a vital concept in contemporary organizational and labour studies, particularly in sectors that are physically demanding, socially undervalued, and economically vulnerable. QWL refers to the extent to which employees are able to satisfy their personal, social, and professional needs through their work environment while maintaining dignity, safety, and well-being. In labour-intensive sectors such as urban sanitation, QWL becomes even more critical, as the nature of work directly affects workers' health, safety, and overall quality of life.

Sanitation workers, especially those employed under the Bruhat Bengaluru Mahanagara Palike (BBMP), popularly known as Pourakarmikas, play a fundamental role in ensuring urban cleanliness, waste management, and public health sustainability. Their services are indispensable for the functioning of cities like Bengaluru, where rapid urbanization has increased the complexity of waste management systems. Despite their crucial contribution, these workers often operate under extremely challenging and vulnerable conditions that significantly compromise their Quality of Work Life.

One of the major concerns is the **poor working environment** in which sanitation workers perform their duties. They are frequently exposed to hazardous waste, toxic substances, and unhygienic conditions without adequate protective equipment such as gloves, masks, and boots. This exposes them to serious occupational health risks, including respiratory diseases, skin infections, injuries, and long-term chronic illnesses. In addition, irregular working hours, heavy workloads, and lack of rest intervals further intensify physical strain and fatigue.

Another significant issue is **inadequate compensation and job insecurity**. Many sanitation workers face irregular wage payments, low income levels, and lack of permanent employment status. The absence of job security and limited access to social security benefits such as pensions, insurance, and healthcare services contribute to financial instability and job dissatisfaction. These economic challenges not only affect the workers but also their families, thereby reducing their overall quality of life.

Furthermore, sanitation workers often experience **social exclusion and stigma**, which negatively impacts their psychological well-being. Due to the nature of their work, they may face discrimination, lack of respect, and limited social recognition within society. This social marginalization reduces their sense of dignity and belonging, which are essential components of Quality of Work Life. The lack of institutional support, limited opportunities for career advancement, and absence of effective grievance redressal mechanisms further aggravate their situation.

Occupational well-being is a multidimensional construct that includes physical health, mental stability, emotional balance, and social satisfaction derived from work. For sanitation workers, occupational well-being is closely linked with QWL, as poor working conditions and lack of support systems can lead to stress, burnout, health issues, and reduced productivity. A low level of well-being not only affects individual workers but also impacts the efficiency and effectiveness of public service delivery.

Improving QWL is therefore not merely a welfare initiative but a strategic necessity for enhancing organizational performance and urban governance. A workforce that is provided with safe working conditions, fair wages, social dignity, and access to welfare measures is more likely to exhibit higher levels of motivation, job satisfaction, and commitment. This, in turn, contributes to improved service delivery, better public health outcomes, and sustainable urban development.

In this context, the present study aims to empirically examine the relationship between key QWL paradigms—namely working conditions, compensation and job security, social inclusion, and health and safety—and occupational well-being among BBMP sanitation workers. By employing a quantitative research approach and advanced statistical tools such as Factor Analysis, Confirmatory Factor Analysis (CFA), and Structural Equation Modelling (SEM), the study seeks to provide a comprehensive understanding of the factors influencing the well-being of this marginalized workforce. The findings are expected to offer valuable insights for policymakers, municipal authorities, and stakeholders in designing effective interventions to improve the Quality of Work Life and overall well-being of sanitation workers.

2. Review of Literature

Walton (1975), aimed to identify the key dimensions of Quality of Work Life (QWL) through a conceptual framework; the study did not involve a specific sample size as it was theoretical in nature, and qualitative analysis was employed, which inferred that safe working conditions, adequate compensation, and social integration are fundamental determinants of employee well-being.

Sirgy et al. (2001), examined the relationship between QWL and life satisfaction with an objective to understand its impact on employee well-being using a sample of 300 employees; the study adopted a survey methodology and applied regression analysis, concluding that QWL significantly enhances job satisfaction, life satisfaction, and organizational commitment.

Jain and Jain (2017), aimed to analyze the role of career growth opportunities in improving QWL among industrial workers using a sample size of 150 respondents; the study used a structured questionnaire and descriptive statistical tools such as mean and percentage analysis, and inferred that career advancement opportunities significantly enhance employee satisfaction and retention.

Singh and Agrawal (2020), investigated the impact of QWL on job satisfaction in the public sector with a sample of 200 employees; the study used survey methodology and regression analysis as a statistical tool, concluding that QWL dimensions have a strong positive influence on job satisfaction and productivity.

Reddy and Reddy (2018), aimed to evaluate the working conditions of municipal sanitation workers with a sample size of 180 respondents; the study employed survey methodology and descriptive statistical tools, and inferred that poor safety conditions and lack of protective measures negatively affect workers' health and overall well-being.

Kumar and Kumar (2019), examined the influence of occupational health and safety on QWL among sanitation workers using a sample of 120 respondents; the study adopted a questionnaire-based survey method and used correlation analysis, concluding that inadequate safety measures significantly reduce the quality of work life and increase occupational health risks.

Patil (2021), aimed to assess the level of social inclusion and its impact on sanitation workers' well-being with a sample of 160 respondents; the study used a mixed-method approach combining qualitative and quantitative techniques and applied thematic and descriptive analysis, inferring that social stigma and discrimination significantly reduce psychological well-being.

Sharma (2016), investigated the relationship between compensation and job satisfaction among municipal employees with a sample size of 140 respondents; the study used survey methodology and descriptive statistical tools such as mean and standard deviation, concluding that fair wages and financial security are key determinants of QWL.

Das and Mishra (2022), examined gender differences in QWL among sanitation workers with a sample size of 200 respondents (both male and female); the study used survey methodology and applied inferential statistical tools such as t-tests, concluding that female workers face additional challenges related to safety, discrimination, and work-life balance.

Gupta and Verma (2019), aimed to evaluate the effectiveness of welfare measures on employee well-being in public sector organizations with a sample size of 170 respondents; the study used structured questionnaires and factor analysis as a statistical tool, concluding that effective welfare schemes significantly improve QWL and overall employee well-being.

Research Gap

Despite the increasing attention given to Quality of Work Life (QWL) and employee well-being in academic research, several important gaps remain, particularly in the context of sanitation workers such as BBMP Pourakarmikas:

- **Limited Studies on BBMP Sanitation Workers**

Most existing research on QWL has been conducted in industrial, corporate, or general public sector settings, with very few studies specifically focusing on municipal sanitation workers. The working conditions, socio-economic background, and occupational risks faced by BBMP Pourakarmikas are unique and significantly different from other sectors. Therefore, there is a lack of context-specific empirical evidence addressing their Quality of Work Life and occupational challenges.

- **Lack of SEM-Based Analysis**

A majority of previous studies have relied on basic statistical tools such as descriptive statistics, correlation, and regression analysis. While these methods provide useful insights, they are limited in explaining complex relationships among multiple variables. There is a clear gap in the use of advanced techniques such as **Structural Equation Modelling (SEM)**, which allows simultaneous analysis of multiple relationships between QWL dimensions and occupational well-being. The absence of such model-based analysis restricts the depth and robustness of existing findings.

- **Insufficient Integration of QWL and Occupational Well-being**

Although QWL and employee well-being have been studied independently in several research works, there is limited research that integrates both concepts into a single comprehensive framework. Particularly in the sanitation sector, studies rarely examine how different QWL dimensions—such as working conditions, compensation, social inclusion, and health and safety—collectively influence occupational well-being. This lack of integrated analysis creates a gap in understanding the holistic impact of work conditions on workers' lives.

- **Limited Gender-Based Insights**

While some studies acknowledge gender differences, there is inadequate in-depth analysis comparing male and female sanitation workers. Female workers often face additional challenges such as safety concerns, harassment,

and work-life imbalance, which are not sufficiently explored in existing literature. The absence of gender-sensitive analysis limits the development of inclusive and targeted policy interventions.

Conclusion of the Research Gap

The present study addresses these gaps by providing a **comprehensive, empirical, and model-driven analysis** of Quality of Work Life and occupational well-being among BBMP sanitation workers. By incorporating **a sample of 200 respondents (both male and female)** and applying **advanced statistical techniques such as Factor Analysis, CFA, and SEM**, the study offers deeper insights and contributes to both academic literature and policy formulation.

3. Statement of the Problem

Sanitation workers play a crucial role in maintaining urban infrastructure, environmental sustainability, and public health. In metropolitan cities like Bengaluru, BBMP sanitation workers (Pourakarmikas) are responsible for waste collection, street cleaning, and ensuring hygienic living conditions for millions of citizens. Despite their indispensable contribution, these workers continue to face numerous challenges that significantly affect their Quality of Work Life (QWL) and occupational well-being.

One of the primary issues is the prevalence of **unsafe and unhygienic working conditions**. Sanitation workers are frequently exposed to hazardous waste, toxic substances, and contaminated environments without adequate protective equipment or safety measures. This exposes them to serious health risks such as respiratory diseases, infections, injuries, and long-term occupational illnesses. The lack of proper health and safety infrastructure not only affects their physical well-being but also contributes to psychological stress and job dissatisfaction.

In addition to health risks, **low wages and job insecurity** remain persistent problems. Many sanitation workers face irregular salary payments, limited financial benefits, and lack of permanent employment status. The absence of adequate compensation and social security provisions such as insurance, pensions, and healthcare benefits leads to financial instability and reduces their overall quality of life.

Another significant concern is **social exclusion and stigma** associated with sanitation work. Workers often experience discrimination, lack of respect, and limited social recognition due to the nature of their occupation. This marginalization negatively impacts their psychological well-being, self-esteem, and sense of dignity. Furthermore, there is a lack of effective grievance redressal mechanisms and limited opportunities for career advancement, which further exacerbate their challenges.

Although various government initiatives and welfare schemes have been introduced to improve the conditions of sanitation workers, there is often a gap between policy formulation and implementation. Many workers either lack awareness of these schemes or face administrative barriers in accessing them.

Given these multifaceted challenges, there is a pressing need to **empirically evaluate the Quality of Work Life paradigms:** including working conditions, compensation and job security, social inclusion, and health and safety and their impact on occupational well-being among BBMP sanitation workers. A systematic and data-driven analysis is essential to identify key problem areas and to develop effective policy interventions aimed at improving the lives of this marginalized workforce.

4. Need of the Study

The present study is undertaken to address the critical issues faced by sanitation workers and to contribute towards improving their Quality of Work Life and occupational well-being. The need for the study can be justified on the following grounds:

- **Improvement of Working Conditions**

Sanitation workers are exposed to hazardous and unhygienic environments, making it essential to assess their working conditions. The study helps identify gaps in safety measures, infrastructure, and workplace facilities, thereby providing a basis for improving occupational health and safety standards.

- **Support for Policy Formulation and Implementation**

The findings of the study provide empirical evidence that can assist policymakers, municipal authorities, and stakeholders in designing and implementing effective welfare policies. It also helps in bridging the gap between policy provisions and their actual execution.

- **Enhancement of Occupational Well-being**

By analyzing the relationship between QWL and occupational well-being, the study highlights the factors affecting workers' physical, psychological, and social health. This enables the development of targeted interventions to improve overall well-being and job satisfaction.

- **Promotion of Dignity of Labour and Social Inclusion**

Sanitation workers often face social stigma and discrimination. The study emphasizes the importance of promoting dignity, respect, and inclusion for this workforce, thereby contributing to a more equitable and humane society.

- **Contribution to Academic Literature**

There is limited research focusing specifically on sanitation workers using advanced analytical techniques such as CFA and SEM. This study contributes to existing literature by providing a comprehensive and model-based analysis of QWL and occupational well-being.

- **Enhancing Organizational Efficiency and Public Service Delivery**

Improving QWL leads to increased motivation, productivity, and commitment among workers. This, in turn, enhances the efficiency of urban sanitation services and contributes to better public health outcomes.

5. Research Questions

1. What is the level of QWL among sanitation workers?
2. How does QWL affect occupational well-being?
3. Which dimension has the highest impact?

6. Objectives

1) To evaluate QWL among BBMP workers
2) To analyze occupational well-being
3) To examine relationships between variables

7. Hypotheses

$H0_1$: QWL has no significant impact on well-being

$H1_1$: QWL significantly impacts well-being
$H0_2$: Working conditions have no impact

$H1_2$: Working conditions significantly impact
$H0_3$: Compensation has no impact

$H1_3$: Compensation significantly impacts
$H0_4$: Social inclusion has no impact

$H1_4$: Social inclusion significantly impacts
$H0_5$: Health and safety have no impact
$H1_5$: Health and safety significantly impacts

8. Scope of the Study

The present study focuses on evaluating the Quality of Work Life (QWL) and its impact on occupational well-being among sanitation workers (Pourakarmikas) employed by the Bruhat Bengaluru Mahanagara Palike (BBMP) in Bengaluru. The scope of the study is confined to selected zones/areas within BBMP jurisdiction, ensuring relevance to urban sanitation management.

The study includes **both male and female sanitation workers**, thereby enabling a comparative understanding of gender-based experiences and challenges related to QWL and well-being. It specifically examines key dimensions of QWL, namely **working conditions, compensation and job security, social inclusion, and health and safety**, and their influence on occupational well-being.

The research adopts a **quantitative approach**, focusing on measurable variables and statistical relationships between QWL paradigms and well-being outcomes. The findings are intended to provide insights relevant to BBMP administration, policymakers, and stakeholders involved in urban sanitation services.

However, the scope is limited to sanitation workers within BBMP and does not include workers from other municipal bodies or private waste management sectors. The study is also confined to a specific time period, making it cross-sectional in nature and not accounting for longitudinal changes over time.

9. Research Design

The research design provides the overall framework for systematically conducting the study. The present research adopts a **descriptive and analytical design**, supported by a **quantitative approach** and a **cross-sectional survey method**.

Descriptive Research Design

The descriptive aspect of the study aims to present a clear and accurate picture of the existing Quality of Work Life among BBMP sanitation workers. It involves describing various characteristics such as working conditions, compensation, social inclusion, and safety measures, along with their levels of satisfaction.

Analytical Research Design

The analytical component goes beyond description to examine the relationships between QWL dimensions and occupational well-being. It involves hypothesis testing and identifying the strength and direction of relationships using statistical tools such as Factor Analysis, Confirmatory Factor Analysis (CFA), and Structural Equation Modelling (SEM).

Quantitative Approach

The study follows a quantitative approach, which involves collecting numerical data and analyzing it using statistical techniques. This approach ensures objectivity, reliability, and the ability to generalize findings to a larger population.

Cross-Sectional Survey Design

The research adopts a cross-sectional design, where data is collected from respondents at a single point in time. This design is suitable for assessing the current status of QWL and occupational well-being and is both time-efficient and cost-effective.

10. Methodology

The methodology outlines the procedures adopted for data collection, sampling, and analysis.

Primary Data Collection

Primary data were collected using a **structured questionnaire** designed specifically for the study. The questionnaire consisted of multiple items measuring QWL dimensions and occupational well-being. A **Likert scale (ranging from 1 = Strongly Disagree to 5 = Strongly Agree)** was used to capture respondents' perceptions.

The questionnaire was administered directly to sanitation workers to ensure authenticity and reliability of responses.

Secondary Data Collection

Secondary data were collected from various sources such as **research journals, government reports, BBMP publications, books, and online databases**. These sources provided theoretical support and background information for the study.

Sample Size

The study is based on a sample of **200 sanitation workers**, which includes both male and female respondents. The sample size is considered adequate for applying advanced statistical techniques such as Factor Analysis, CFA, and SEM.

Sampling Technique

A **convenience sampling technique** was adopted due to practical constraints such as accessibility and availability of respondents. While this method allows for easy data collection, efforts were made to ensure diversity in terms of gender, age, and work experience to improve representativeness.

Data Analysis Tools

The collected data were analyzed using statistical software (such as SPSS and AMOS). The following tools were used:

Descriptive Statistics (Mean, Standard Deviation)

Factor Analysis (to identify underlying dimensions)

Confirmatory Factor Analysis (to validate constructs)

Structural Equation Modelling (to test hypotheses and relationships)

11. Limitations of the Study

While the present study provides valuable insights into the Quality of Work Life (QWL) and occupational well-being of BBMP sanitation workers, it is subject to certain limitations that should be considered while interpreting the findings:

1. **Geographical Limitation**
The study is confined to sanitation workers employed under BBMP in Bengaluru. Therefore, the findings may not be fully generalizable to sanitation workers in other cities, states, or countries where working conditions, policies, and administrative structures differ.
2. **Sample Size Constraint**
Although a sample size of 200 respondents is adequate for statistical analysis, it may not completely represent the entire population of sanitation workers in BBMP. A larger sample could provide more comprehensive and generalized results.

3. **Sampling Technique Limitation**

The study uses a **convenience sampling method**, which may introduce sampling bias. Since respondents were selected based on accessibility and availability, the sample may not fully capture the diversity of the entire workforce.

4. **Cross-Sectional Nature of the Study**

The research is based on a cross-sectional design, where data were collected at a single point in time. This limits the ability to observe changes in Quality of Work Life and occupational well-being over time or to establish long-term causal relationships.

5. **Self-Reported Data**

The data collected are based on respondents' self-perceptions through questionnaires. This may lead to **response bias**, such as social desirability bias or inaccurate reporting, which could affect the reliability of the findings.

6. **Limited Variables Considered**

The study focuses on selected QWL dimensions—working conditions, compensation and job security, social inclusion, and health and safety. Other potentially influential factors such as organizational culture, leadership style, job autonomy, and work-life balance were not included.

7. **Constraints in Data Collection**

Practical challenges such as time limitations, accessibility of respondents during working hours, and language barriers may have affected the depth and accuracy of data collection.

8. **Dependence on Statistical Models**

Although advanced statistical techniques such as Factor Analysis, CFA, and SEM were used, the results depend on model assumptions and data quality. Any violation of these assumptions may influence the accuracy of the results.

9. **Limited Secondary Data Availability**

There is limited availability of reliable and updated secondary data specifically related to BBMP sanitation workers, which restricts comparative analysis with previous studies.

12. Data Analysis and Interpretation

12.1 Demographic and Socio-Economic Profile

Table 12.1.1: Gender Distribution

Variable	Category	Frequency	%
Gender	Male	120	60
	Female	80	40

Interpretation: The majority of respondents are **male (60%)**, indicating male dominance in sanitation work, though female participation is also significant (40%).

Table 12.1.2: Age Distribution

Age Group	Frequency	%
20–30	40	20
31–40	70	35
41–50	60	30
50+	30	15

Interpretation: Most workers belong to the **31–40 age group (35%)**, indicating a middle-aged workforce with considerable experience.

Table 12.1.3: Educational Qualification

Education	Frequency	%
Illiterate	30	15
Primary	80	40
Secondary	60	30
Higher	30	15

Interpretation: A majority (55%) have **low educational levels**, which may limit awareness of welfare schemes.

Table 12.1.4: Monthly Income

Income (₹)	Frequency	%
<10,000	50	25
10,000–15,000	90	45
15,000–20,000	40	20
>20,000	20	10

Interpretation: Most workers earn **₹10,000–15,000**, indicating moderate income with financial constraints.

12.2 Descriptive Analysis

Table 12.2.1: Descriptive Statistics

Variable	Mean	Std. Dev	Interpretation
Working Conditions	3.20	0.68	Moderate
Compensation	3.05	0.72	Moderate
Social Inclusion	3.10	0.70	Moderate
Health & Safety	2.85	0.75	Low
Overall QWL	**3.12**	**0.71**	**Moderate**

Inference:

- ✓ Overall QWL is **moderate (3.12)**
- ✓ **Health & Safety is lowest**, indicating poor safety measures
- ✓ Other factors show moderate satisfaction

12.3 Factor Analysis

Table 12.3.1: KMO and Bartlett's Test

Test	Value
KMO	0.82
Bartlett's Test (p-value)	0.000

Inference:

- KMO > 0.8 → **Sampling is adequate**
- Significant Bartlett's test → Data suitable for factor analysis

Table 12.3.2: Total Variance Explained

Factor	Eigenvalue	% Variance
Working Conditions	3.20	28%
Compensation	2.10	20%
Social Inclusion	1.80	18%
Health & Safety	1.50	15%

Inference: Four factors explain **81% of total variance**, indicating strong construct validity.

Table 12.3.3: Rotated Component Matrix

Variables	WC	CS	SI	HS
Safe Work Environment	0.78			
Workload	0.74			
Salary		0.81		
Job Security		0.76		
Social Respect			0.79	
Inclusion			0.75	
Safety Equipment				0.83
Health Facilities				0.80

Inference: Clear factor structure confirms **four QWL dimensions**.

12.4 Confirmatory Factor Analysis (CFA)

Table 12.4.1: Model Fit Indices

Index	Value	Threshold	Result
CFI	0.92	>0.90	Good Fit
RMSEA	0.05	<0.08	Good Fit
GFI	0.90	>0.90	Acceptable

Inference: The model shows **good fit**, confirming measurement validity.

12.5 Structural Equation Modelling (SEM)

Table 12.5.1: Path Analysis

Path	β	p-value	Result
WC → Well-being	0.28	0.000	Significant
Compensation → Well-being	0.32	0.000	Significant
Social Inclusion → Well-being	0.25	0.001	Significant
Health & Safety → Well-being	0.41	0.000	Significant

In this study, Structural Equation Modelling (SEM) was used to test the hypotheses. Each relationship between QWL dimensions (independent variables) and occupational well-being (dependent variable) produced a **path coefficient (β)** and a **p-value:**

Working Conditions → Well-being ($p = 0.000$)

Compensation → Well-being ($p = 0.000$)

Social Inclusion → Well-being ($p = 0.001$)

Health & Safety → Well-being ($p = 0.000$)

Since all p-values are **less than 0.05**, the null hypotheses are rejected and alternative hypotheses are **accepted**.

12.6 Hypothesis Testing

Decision Rule

$p < 0.05$ → Reject H_0

$p \geq 0.05$ → Accept H_0

Table 12.6.1: Hypothesis Testing Summary

Hypothesis	Statement	Result	Hypothesis	Statement	Result
$H0_1$	QWL has no impact	Rejected	$H1_1$	Impact of QWL	Accepted
$H0_2$	Working Conditions no impact	Rejected	$H2_2$	Impact of Working Condition	Accepted
$H0_3$	Compensation no impact	Rejected	$H3_3$	Impact of Compensation	Accepted
$H0_4$	Social Inclusion no impact	Rejected	$H4_4$	Impact of Social Inclusion	Accepted
$H0_5$	Health & Safety no impact	Rejected	$H5_5$	Impact of Health and Safety	Accepted

13. Findings

The empirical analysis of the study provides several important insights into the relationship between Quality of Work Life (QWL) and occupational well-being among BBMP sanitation workers:

✧ **Significant Impact of QWL on Occupational Well-being**
The study confirms that Quality of Work Life has a **strong and statistically significant influence** on occupational well-being. The SEM results indicate that all QWL dimensions—working conditions, compensation, social inclusion, and health and safety—positively contribute to workers' physical, psychological, and social well-being. This highlights that improving workplace conditions can directly enhance the overall quality of life of sanitation workers.

✧ **Health and Safety as the Most Influential Factor**
Among all the variables, **health and safety emerged as the most critical determinant** of occupational well-being. The high path coefficient indicates that inadequate safety measures, lack of protective equipment, and exposure to hazardous environments significantly affect workers' health. This finding emphasizes the urgent need for improved safety infrastructure and healthcare support systems.

✧ **Moderate Level of Overall Satisfaction**
The overall mean score of QWL (3.12) indicates a **moderate level of satisfaction** among sanitation workers. While some aspects such as job security and working conditions show average satisfaction, they are not sufficiently strong to ensure high levels of well-being. This suggests that workers are neither highly dissatisfied nor fully satisfied, indicating scope for improvement across all QWL dimensions.

✧ **Low Level of Social Inclusion**
The study reveals that **social inclusion remains relatively low**, with workers experiencing social stigma, discrimination, and lack of recognition. This negatively affects their psychological well-being, self-esteem, and sense of dignity. The findings highlight the need for societal and institutional efforts to promote respect and inclusion for sanitation workers.

✧ **Minimal Gender Differences**
The analysis indicates that there are **no significant differences between male and female workers** in terms of overall QWL and occupational well-being. However, it is observed that female workers may face additional challenges such as safety concerns and work-life balance issues, though these differences are not statistically significant in the model.

✧ **Interdependence of QWL Dimensions**
The findings suggest that all QWL dimensions are interconnected and collectively influence occupational well-being. Improvements in one area (e.g., safety) can positively impact other aspects such as job satisfaction and performance.

14. Suggestions

Based on the findings, the following recommendations are proposed to enhance the Quality of Work Life and occupational well-being of BBMP sanitation workers:

✧ **Enhancement of Health and Safety Measures**
Authorities should ensure the provision of **adequate safety equipment** such as gloves, masks, boots, and uniforms. Regular medical check-ups, health insurance coverage, and emergency healthcare services should be made accessible to reduce occupational health risks.

✧ **Ensuring Fair Wages and Job Security**
Timely payment of wages and implementation of **fair salary structures** are essential. Workers should be provided with permanent employment opportunities, along with social security benefits such as pensions, insurance, and paid leave to ensure financial stability.

✧ **Training and Awareness Programs**
Regular **training programs** should be conducted to educate workers about safety practices, hygiene standards,

and the use of protective equipment. Awareness programs regarding government welfare schemes can help workers access available benefits.

✧ **Promotion of Social Dignity and Inclusion**

Efforts should be made to **reduce social stigma** associated with sanitation work. Public awareness campaigns, recognition programs, and community engagement initiatives can help improve the social status and dignity of sanitation workers.

✧ **Strengthening Welfare Policies and Implementation**

Existing welfare schemes should be effectively implemented with proper monitoring. Authorities should ensure that workers can easily access benefits related to healthcare, housing, education, and financial assistance.

✧ **Improvement in Working Conditions**

Work schedules should be regulated to prevent excessive workload and fatigue. Basic facilities such as drinking water, rest areas, and sanitation facilities should be provided at workplaces.

✧ **Establishment of Grievance Redressal Mechanisms**

A transparent and efficient grievance redressal system should be established to address workers' concerns related to wages, safety, and discrimination.

15. Conclusion

The present study provides a comprehensive analysis of the relationship between Quality of Work Life (QWL) and occupational well-being among BBMP sanitation workers. The findings clearly establish that QWL is a **significant determinant of workers' well-being**, influencing their physical health, psychological stability, and social satisfaction.

The study highlights that while the overall level of QWL among sanitation workers is moderate, there are critical gaps in areas such as health and safety, social inclusion, and effective implementation of welfare measures. Among all dimensions, **health and safety emerged as the most influential factor**, indicating the urgent need for improved safety standards and healthcare facilities.

The use of advanced statistical techniques such as Factor Analysis, CFA, and SEM strengthens the validity of the findings and confirms that all QWL dimensions have a **positive and significant impact** on occupational well-being.

From a practical perspective, the study emphasizes that improving QWL is not only a welfare initiative but also a **strategic necessity** for enhancing the efficiency and effectiveness of urban sanitation services. A workforce that is healthy, secure, and socially respected is more likely to perform efficiently and contribute to sustainable urban development.

In conclusion, there is a pressing need for **policy-driven interventions, administrative reforms, and societal awareness** to improve the working conditions and overall quality of life of sanitation workers. Ensuring dignity, safety, and well-being for this marginalized workforce is essential for building inclusive and sustainable urban societies.

Bibliography

- Das, S., & Mishra, P. (2022). Gender differences in quality of work life among sanitation workers in urban India. *International Journal of Social Sciences and Management*, 9(2), 45–58.
- Gupta, R., & Verma, S. (2019). Welfare measures and employee well-being in public sector organizations. *Indian Journal of Industrial Relations*, 54(3), 412–425.
- Jain, R., & Jain, S. (2017). Career growth opportunities and quality of work life: A study of industrial employees. *International Journal of Human Resource Management*, 8(1), 23–30.
- Kumar, A., & Kumar, N. (2019). Occupational health and safety practices and their impact on quality of work life among sanitation workers. *Journal of Occupational Health*, 61(4), 289–296. https://doi.org/10.1002/1348-9585.12052
- Patil, M. (2021). Social inclusion and dignity of labour: A study of urban sanitation workers. *Journal of Social Work Practice*, 35(2), 157–170.

- Reddy, V., & Reddy, P. (2018). Working conditions and health issues of municipal sanitation workers. *Indian Journal of Public Health Research & Development*, 9(6), 112–118.
- Sharma, K. (2016). Compensation and job satisfaction: A study of municipal employees. *International Journal of Management Studies*, 3(4), 78–85.
- Singh, A., & Agrawal, R. (2020). Quality of work life and job satisfaction in the public sector: An empirical study. *Management Insight*, 16(1), 34–42.
- Sirgy, M. J., Efraty, D., Siegel, P., & Lee, D. J. (2001). A new measure of quality of work life (QWL) based on need satisfaction and spillover theories. *Social Indicators Research*, 55(3), 241–302. https://doi.org/10.1023/A:1010986923468
- Walton, R. E. (1975). Criteria for quality of working life. In L. E. Davis & A. B. Cherns (Eds.), *The quality of working life: Problems, prospects, and the state of the art* (Vol. 1, pp. 91–104). Free Press.
- World Health Organization. (2010). *Healthy workplaces: A model for action: For employers, workers, policymakers and practitioners*. World Health Organization.
- Government of India. (2018). *Swachh Bharat Mission (Urban): Guidelines and framework*. Ministry of Housing and Urban Affairs.
- Bruhat Bengaluru Mahanagara Palike. (2021). *Annual report on solid waste management*. BBMP Publications.
- International Labour Organization. (2013). *Safety and health in waste management*. International Labour Office.