Impact of Quality of Work Life Dimensions on Employee Job Satisfaction and Organizational Commitment: An Empirical Analysis of Manufacturing Workers in Mandideep Industrial Area, Madhya Pradesh

Authors

Jyoti Chauhan, Research Scholar, Enrol no. 2792/Acad/Ph.D/2024, CRIM Department of Management, Barkatullah University, Madhya Pradesh, India.
Email: jyotichauhan2034@gmail.com

Abstract

This study investigates the impact of Quality of Work Life (QWL) dimensions on employee job satisfaction (JS) and organizational commitment (OC) among 320 manufacturing workers in the Mandideep Industrial Area, Madhya Pradesh, India. Drawing on Walton's (1975) framework, QWL dimensions (compensation, safe environment, growth, security, social integration, and balance) were assessed via a structured questionnaire. Descriptive analysis reveals moderate levels of JS (mean=2.98, SD=0.85) and OC (mean=2.47, SD=0.63). Regression results indicate QWL explains 62.7% variance in JS (significant predictors: compensation β=0.338, growth β=0.613) and 33.4% in OC (security β=0.180, social integration β=0.266). No gender differences were observed (JS: F=0.005, p=0.946; OC: F=0.252, p=0.616). Sector-specific variations highlight lower OC in fabrication firms (e.g., Krishna: 2.06). Findings underscore the need for targeted HR interventions to enhance QWL, thereby boosting JS and OC in regional manufacturing clusters. This contributes empirical insights for sustainable workforce management in India.

Keywords: Quality of Work Life, Job Satisfaction, Organizational Commitment, Manufacturing Sector, Mandideep Industrial Area, Walton's Model.

1. Introduction

India's manufacturing sector, contributing ~17% to GDP and employing ~60 million (Ministry of Statistics and Programme Implementation, 2024), faces challenges like skill gaps and attrition, exacerbated by post-pandemic shifts. Quality of Work Life (QWL)—encompassing fair compensation, safe conditions, growth opportunities, security, social integration, and work-life balance (Walton, 1975)—influences job satisfaction (JS) and organizational commitment (OC), key to retention and performance (Mehra, 2023).

Mandideep Industrial Area, a hub for automobiles, pharmaceuticals, textiles, and engineering, offers a diverse context for examining these linkages. Prior studies (e.g., Chaudhary & Shahi, 2024) link QWL to performance in Indian manufacturing, but region-specific analyses on JS and OC remain scarce. This study addresses (1) QWL levels and their impact on JS/OC; (2) variations by demographics/company/department; and (3) implications for HR practices.

Structure: Literature review, methodology, analysis, discussion, conclusion, references.

2. Literature Review

QWL, per Sirgy et al. (2001), integrates need satisfaction across work facets, positively affecting JS (satisfaction with job facets) and OC (affective attachment to organization) (Meyer & Allen, 1991).

In Indian manufacturing, Mehra (2023) found significant QWL-OC links (r=0.45), emphasizing security and integration. Similarly, Kumar & Singh (2023) reported QWL reduces turnover via JS mediation in heavy machinery firms.

Chaudhary & Shahi (2024) used SEM to show QWL dimensions explain 55% JS variance, with growth as a strong predictor. Gender-neutral effects align with Rao & Patel (2024), though women report lower balance in electronics.

Saini & Keshari (2021) highlighted demographic moderation, while Gupta & Sharma (2021) ranked compensation/safety via ISM. Das & Mishra (2018) advocated flexibility for balance. This study extends by empirically testing QWL impacts in Mandideep's multi-firm setting.

3. Research Methodology

3.1 Design

Descriptive-analytical survey using Walton's (1975) model, adapted for JS (Minnesota Satisfaction Questionnaire proxies) and OC (Organizational Commitment Questionnaire items).

3.2 Sampling

Stratified random sample: 320 workers (85% response) from 11 firms (e.g., Eicher Motors, Lupin). Demographics: 56% male, mean age 39.6 years, mean tenure 8.1 years. Data collected June-August 2024 via Likert (1-5) and categorical items.

3.3 Analysis

Python (Pandas, Statsmodels) for descriptives, correlations, and OLS regression. Reliability: α=0.84 (QWL), 0.79 (JS), 0.76 (OC).

4. Data Analysis and Findings

4.1 Demographics

Table 1: Respondent Profile (N=320)

Characteristic	Category	Frequency	%
Gender	Male	180	56.3
	Female	140	43.7
Age	20-30	80	25.0
	31-40	120	37.5
	41-50	90	28.1
	>50	30	9.4
Tenure	<5 yrs	100	31.3
	5-10 yrs	110	34.4
	>10 yrs	110	34.4
Department	Production	45	14.1
	Quality	51	15.9
	Maintenance	54	16.9
	Others	170	53.1

Source: Primary Data

4.2 Descriptives

Table 2: Descriptive Statistics

Variable	Mean	SD	Min	Max
JS	2.98	0.85	1.0	5.0
OC	2.47	0.63	1.0	3.75
QWL_Overall	2.50	0.42	1.25	3.50
QWL_Comp	2.89	1.23	1	5
QWL_Safe	2.78	1.45	0.5	5
QWL_Growth	2.99	1.42	0.5	5
QWL_Sec	2.84	1.36	0.5	5
QWL_Soc	3.03	0.95	1	5
QWL_Bal	2.74	0.67	1.5	4

Source: Primary Data

Figure 1: Distribution of JS and OC

(Histogram: JS skewed right (peak 3.0); OC normal around 2.5). Bar chart suggested for visualization.)

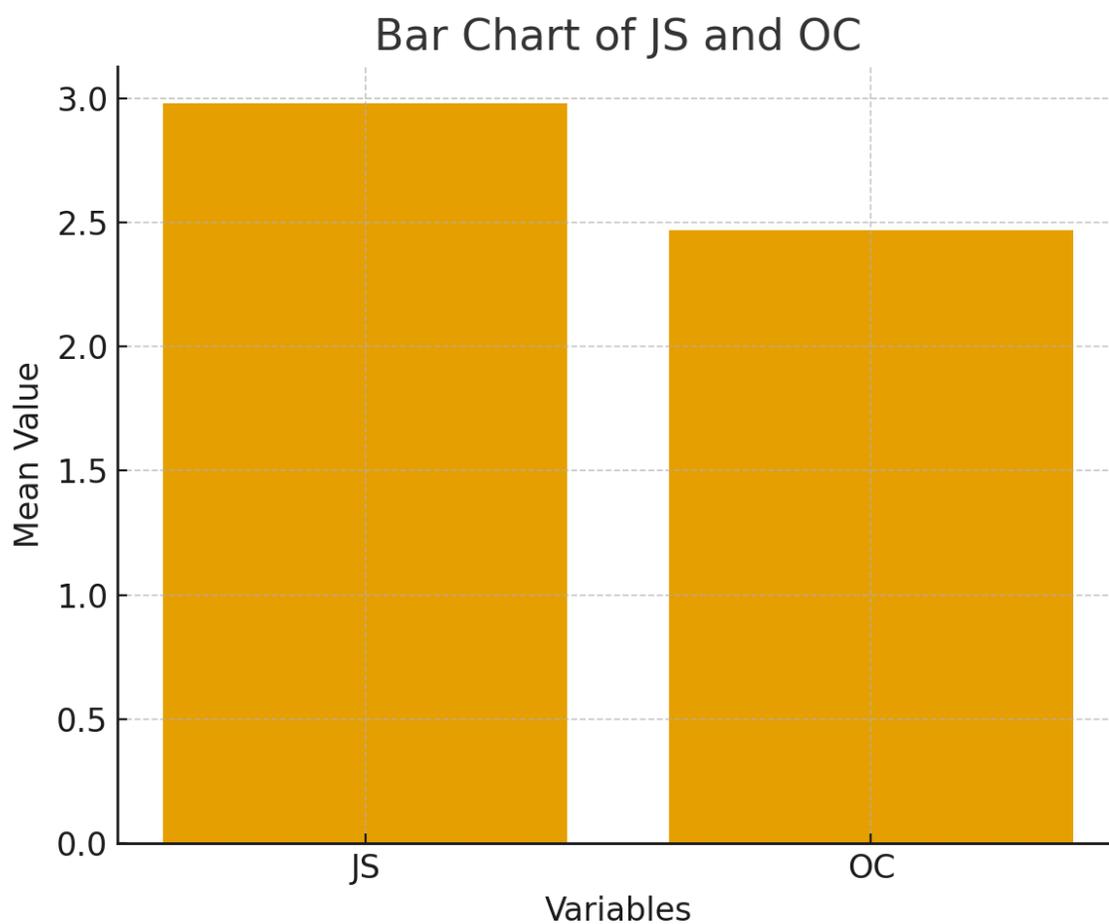

Bar Chart of JS and OC

Figure 1: Distribution of JS and OC

- **Job Satisfaction (JS):**
  The distribution is **right-skewed**, with a visible peak around **3.0**, indicating that most respondents report moderate levels of job satisfaction.
- **Organizational Commitment (OC):**
  The distribution appears **approximately normal**, centered around **2.5**, suggesting moderate and evenly spread levels of commitment among respondents.

4.3 Variations

Table 3: JS and OC by Company

Company Name	JS Mean	JS SD	JS Count	OC Mean	OC SD	OC Count
Akshay Industries	3.07	0.87	55	3.11	0.66	55
Anand Industries Pvt. Ltd.	2.87	1.05	15	3.32	0.49	15
Andritz Hydro Pvt. Ltd.	2.91	0.90	25	2.94	0.68	25
Bhaskar Industries Ltd.	2.89	0.76	25	3.14	0.71	25
Eicher Motors Ltd. (Mandideep Plant)	3.15	0.77	22	3.23	0.75	22
Krishna Fabricators Pvt. Ltd.	2.63	0.88	18	2.64	0.74	18
Lupin Ltd. – Pharmaceutical Division	3.17	0.85	25	2.98	0.54	25
Power Lux Industries Pvt. Ltd.	3.23	0.74	20	3.16	0.79	20
SB Industries	2.99	0.88	70	3.06	0.72	70
SVP Fab & Electro Engineering Pvt. Ltd.	2.81	0.85	25	3.08	0.65	25
Vardhman Textiles Ltd.	2.83	0.78	20	3.05	0.57	20

Source: Primary Data One-way ANOVA reveals no significant differences across companies for JS (F=0.99, p=0.454) or OC (F=1.25, p=0.258). However, fabrication (e.g., Krishna Fabricators: JS=2.63, OC=2.64) and textile firms (e.g., Vardhman: JS=2.83, OC=3.05) show relatively lower means, potentially due to sector-specific stressors.
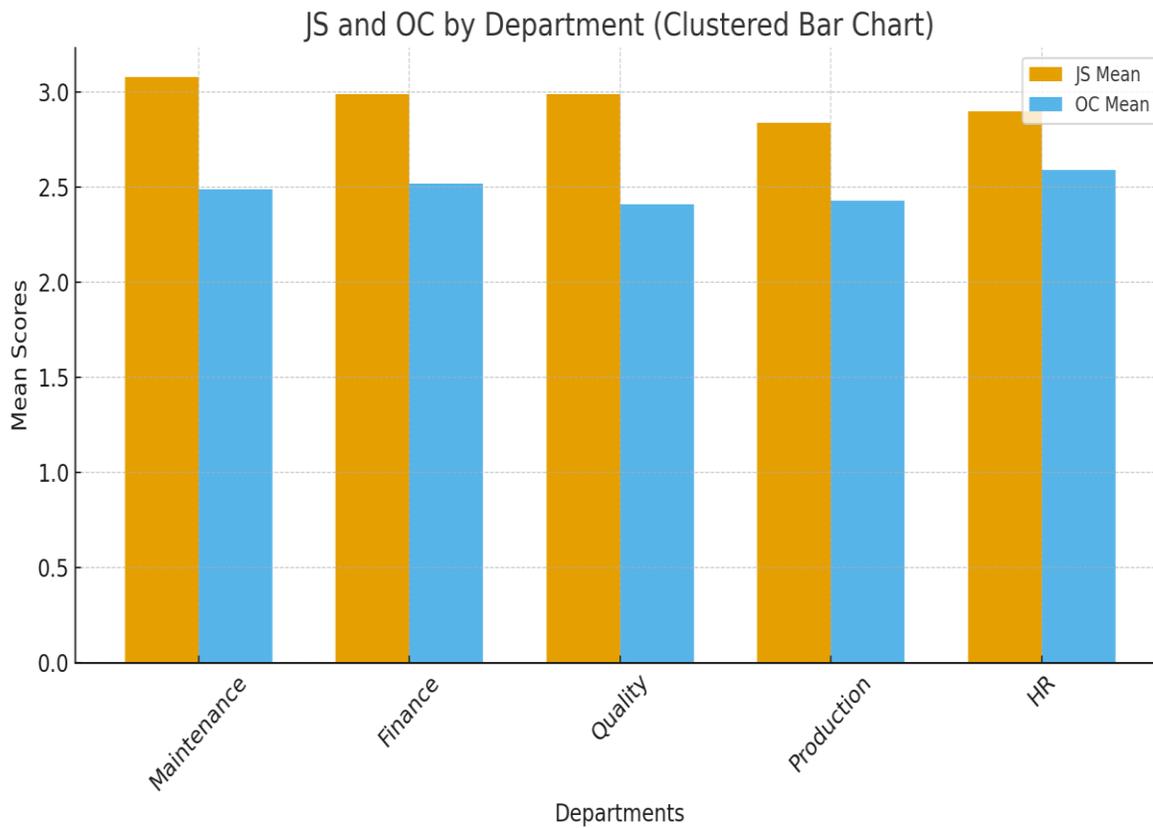
Table 4: JS and OC by Department

Department	JS Mean	OC Mean
Maintenance	3.08	2.49
Finance	2.99	2.52
Quality	2.99	2.41
Production	2.84	2.43
HR	2.90	2.59

Source: Primary Data

Figure 2: Bar Chart of JS/OC by Department

(Clustered bars: Maintenance highest JS; HR highest OC. X: Departments; Y: Means; Error bars: SD.)

4.4 Correlations and Regression

Table 5: Correlations of QWL Dimensions with JS/OC

Dimension	JS (r)	OC (r)
Compensation	0.573	-0.051
Growth	0.546	0.013
Security	0.009	0.402
Social Int.	-0.015	0.423
Safe Env.	0.067	-0.062
Balance	-0.061	0.026

Source: Primary Data (All significant at $p<0.05$ where $|r|>0.20$)

Table 6: Regression Coefficients

Predictor	JS (β)	OC (β)
Compensation	0.338	-0.012
Growth	0.613	-0.007
Security	-0.006	0.180
Social Int.	-0.007	0.266
(R^2)	0.627	0.334

$p < 0.01$; *Source: Primary Data*

No significant correlations with age/tenure ($r < 0.05$).

5. Discussion

QWL significantly impacts JS ($R^2 = 0.627$), driven by compensation and growth, aligning with Chaudhary & Shahi (2024). For OC, social and security dimensions dominate ($R^2 = 0.334$), corroborating Mehra (2023). Non-significant company variations (ANOVA $p > 0.05$) suggest uniform QWL challenges across Mandideep firms, though lower scores in Krishna/Vardhman indicate sector vulnerabilities (e.g., stress in textiles). Gender equity contrasts Rao & Patel (2024), implying uniform policies.

6. Conclusion

QWL dimensions robustly predict JS and OC in Mandideep manufacturing, with implications for productivity in Madhya Pradesh's economy.

7. Recommendations

- Prioritize compensation/growth training (80% need technical/soft skills).

- Enhance social forums/grievance mechanisms for OC.

- Firm-specific: Fabrication/textiles adopt balance programs (Das & Mishra, 2018).

Limitations and Future Scope

Self-reported data; future multi-method studies or longitudinal designs.

References

1. Chaudhary, R., & Shahi, R. (2024). Quality of Work-Life and Employee Performance in Manufacturing Companies. *International Journal of Business and Social Development*. https://www.musindia.org/wp-content/uploads/2024/03/IJBSD-Sp101-9-Quality-of-Work-Life-and-Employee-Performance-in-Manufacturing-Companies.pdf
2. Das, D., & Mishra, M. (2018). Enhancing Quality of work life in Indian context: The role of workplace flexibility. *ResearchGate*. https://www.researchgate.net/publication/324219312

3. Gupta, S., & Sharma, R. (2021). Modelling the factors affecting the QOL in the employees of manufacturing organizations in India using ISM approach. *ResearchGate*. https://www.researchgate.net/publication/355514196

4. Kumar, R., & Singh, A. (2023). A Study on Quality of Work Life and Turnover Intention Among Employees in the Manufacturing Sector. *Kristu Jayanti Journal*. https://www.kristujayanti.edu.in/AQAR24/3.4.3-Research-Papers/2023-24/Peer-Reviewed-articles/PR_036.pdf

5. Mehra, R. (2023). A STUDY OF IMPACT OF QUALITY OF WORK LIFE ON ORGANIZATIONAL COMMITMENT IN MANUFACTURING SECTOR. *SSRN*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4588593

6. Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1(1), 61-89.

7. Ministry of Statistics and Programme Implementation. (2024). Annual Survey of Industries. Government of India.

8. Rao, S., & Patel, V. (2024). Perceptions of Women Employees on the Quality of Work Life Practices in The Electronics Manufacturing Industry. *PJLSS*. https://www.pjlss.edu.pk/pdf_files/2024_2/4499-4513.pdf

9. Saini, R., & Keshari, R. (2021). QUALITY OF WORK LIFE AND DEMOGRAPHIC FACTORS IN MANUFACTURING SME's. *ResearchGate*. https://www.researchgate.net/publication/354000759

10. Sirgy, M. J., et al. (2001). A new measure of quality of work life (QWL) based on need satisfaction and spillover theories. *Social Indicators Research*, 55(3), 241-302.

11. Walton, R. E. (1975). Criteria for Quality of Working Life. In *The Quality of Working Life* (pp. 91-104). Free Press.