

A STUDY ON EMPLOYEES JOB SATISFACTION USING BUSINESS ANALYTICS WITH REFERENCE TO XASCOM INFO SOLUTIONS LLP AT CHENNAI

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ABSRACT

In the hyper-competitive software engineering and knowledge-services vertical, maximizing employee job satisfaction functions as a primary indicator for reducing operational talent drain and driving organizational innovation. This empirical research explores the core determinants of employee job satisfaction inside Xascom Info Solutions LLP, Chennai, by integrating modern business analytics data frameworks. Moving away from standard descriptive HR practices, this investigation combines descriptive percentage distributions, bivariate Chi-Square optimization matrices, and Pearson product-moment correlation tracking to analyze a representative cross-sectional sample of 120 full-time technology professionals. Data was systematically gathered using a structured questionnaire that translates traditional human relations indicators such as technological infrastructure support, compensation health, management transparency, and work-life balance frameworks into discrete analytics variables. The empirical findings indicate that while financial compensation defines the baseline layer, predictive analytics tools demonstrate that career path clarity and data-driven management frameworks exert a dominant influence over long-term retention intent. Bivariate testing confirmed that educational qualifications do not systematically skew employee satisfaction with analytics-driven corporate learning systems. The study concludes by outlining an actionable data-driven talent management architecture designed to optimize operational workplace health. Keywords: Job Satisfaction, Business Analytics, Predictive HR Metrics, Workforce Optimization, Xascom Info Solutions.

1. INTRODUCTION

In the contemporary digital economy, the intersection of data science and human resource management has given rise to robust optimization methodologies known as People Analytics or Business Analytics in HR. Historically, evaluating employee job satisfaction relied primarily on retrospective annual surveys that suffered from significant reporting delays and subjective bias. Today, progressive technology firms leverage continuous business analytics pipelines to convert text-based employee feedback, engagement scores, and operational performance metrics into actionable strategic insights. Job satisfaction reflects an individual's multi-dimensional cognitive and emotional alignment with their assigned corporate roles, physical workplace conditions, and organizational culture. Left unmonitored, widespread dissatisfaction introduces subtle operational friction, including rising absenteeism, low product development quality, and high voluntary turnover rates. For technology providers like Xascom Info Solutions LLP in Chennai, tracking these metrics via analytical frameworks is essential to sustaining product delivery timelines and keeping high-value engineering skills within the company. 1.1 Problem Statement and Context Xascom Info Solutions LLP operates within Chennai's competitive IT corridor, where tech professionals regularly face demanding project sprint targets, changing technical requirements, and round-the-clock delivery cycles. The primary problem facing management is that traditional, unstructured feedback mechanisms fail to capture early warning signs of developer burnout and changing career expectations. By implementing an analytical model that treats satisfaction indicators as structured business variables, the firm can transition from reactive damage control to proactive talent management and retention. 1.2 Core Research Objectives This descriptive analytical study is guided by the following

research goals: To evaluate the demographic profiles of professionals working at Xascom Info Solutions LLP, Chennai, through frequency tracking. To deploy analytical metrics to quantify employee satisfaction across key workplace attributes, including work environment, compensation alignment, and management transparency. To mathematically test the relationship between employees' monthly income and their measured job satisfaction scores. To analyze whether variations in educational qualification backgrounds impact satisfaction with analytics-driven training programs. To provide data-backed strategic recommendations to enhance workplace satisfaction and minimize turnover risks.

2. LITERATURE REVIEW

Miller and Davis (2022) evaluated the application of predictive analytics frameworks within technology environments to monitor workforce sentiments. Their findings demonstrated that companies using real-time pulse analytics dashboards experienced a 35% improvement in proactive problem resolution compared to organizations relying on annual HR cycles. Subramanian and Krishna (2023) studied how algorithmic performance appraisal models affect perceptions of workplace equity in metropolitan IT firms. Their research proved that transparent, metrics-driven review processes significantly increase trust and enhance employee job satisfaction across technical teams. Roberts et al. (2024) conducted a comprehensive review of people analytics implementations in South Indian technology ecosystems. Their empirical data highlighted that while financial rewards serve as an initial attraction factor, long-term workforce stability depends heavily on flexible scheduling and data-backed work-life balance safeguards. Choudhury (2025) analyzed the relationship between continuous digital upskilling pathways and engineering job satisfaction metrics. The research confirmed that software engineers who have access to personalized, analytics-driven learning portals show a 50% higher engagement rate and a strong intent to remain with their current employer.

3. RESEARCH METHODOLOGY

This study adopts a strict Descriptive Research Design, focused on capturing and interpreting quantitative data related to employee job satisfaction. The target

population consists of all active full-time personnel employed at the Chennai production facility of Xascom Info Solutions LLP. Primary data collection was executed via a structured digital questionnaire containing 5-point Likert scale arrays, distributed across various engineering and support departments. The sample size consists of exactly 120 respondents, selected using a Non-Probability Convenience Sampling technique to ensure participation from multiple project teams and shifts. Secondary data inputs were gathered from leading human resource journals, business analytics manuals, and regional IT market whitepapers to support the empirical framework. The collected data was processed using simple percentage analysis, bivariate Chi-Square distribution testing, and Pearson correlation equations.

3.1 Research Hypotheses Hypothesis 1 (H₀): There is no significant relationship between the educational qualification of the employees and their satisfaction with the corporate training and development content. Hypothesis 2 (H₀): There is no significant relationship between the monthly salary distributions of the employees and their overall job satisfaction scores.

4. DATA ANALYSIS AND ANALYTICAL INTERPRETATION

Table 4.1: Proportional Gender Breakdown of Respondents

GENDER GROUP	FREQUENCY VALUE (N=120)	PROPORTIONAL SHARE (%)
Male Professionals	78	65.0
Female Professionals	42	35.0
Total Sample	120	100.0

Inference: The demographic distribution shows a male representation of 65.0% and a female representation of 35.0%. This breakdown provides a balanced baseline for evaluating gender-neutral satisfaction trends within the organization.

Table 4.2: Age Stratification Profiles

AGE COHORT (YEARS)	FREQUENCY VALUE (N=120)	PROPORTIONAL SHARE (%)
18-25 Years	32	26.7
26-35 Years	58	48.3
36-45 Years	22	18.3
Above 45 Years	8	6.7
Total Sample	120	100.0

Inference: The data highlights that the 26-35 years cohort represents the largest group at 48.3%, followed by the 18-25 years group at 26.7%. This indicates a young, tech-focused workforce that responds well to data-driven engagement strategies.

Table 4.3: Educational Qualification Backgrounds

ACADEMIC ATTAINMENT LEVEL	FREQUENCY VALUE (N=120)	PROPORTIONAL SHARE (%)
HSC/Technical Diploma	14	11.7
Undergraduate (UG - B.E. / B.Tech / B.Sc)	66	55.0
Postgraduate (PG - M.E. / M.Tech / MBA)	30	25.0
Specialized Certifications	10	8.3
Total Sample	120	100.0

Inference: Undergraduate degree holders constitute the absolute majority at 55.0%, while postgraduate specialists account for 25.0%. This highlights the technical background of the workforce, which requires clear and structured paths for skill development.

Table 4.4: Service Tenure with the Organization

TENURE BAND	FREQUENCY VALUE (N=120)	PROPORTIONAL SHARE (%)
Less than 1 Year	26	21.7
1-3 Years	60	50.0
3-5 Years	22	18.3
Above 5 Years	12	10.0
Total Sample	120	100.0

Inference: Exactly 50.0% of the surveyed staff possess a tenure between 1 and 3 years, while 21.7% have less than one year of experience with the company. This shows that early-stage retention and onboarding engagement are critical focus areas for management.

Table 4.5: Monthly Disbursed Income Ranges

SALARY RANGE (INR PER MONTH)	FREQUENCY VALUE (N=120)	PROPORTIONAL SHARE (%)
Below 25,000 INR	20	16.7
25,001-45,000 INR	68	56.7
45,001-65,000 INR	22	18.3
Above 65,000 INR	10	8.3
Total Sample	120	100.0

Inference: The core income segment falls within the 25,001 to 45,000 INR monthly bracket (56.7%), establishing a baseline for correlation analyses against employee satisfaction attributes.

4.1 Analytics Component Matrix (Likert Scale Distributions)

Table 4.6: Satisfaction with Compensation and Financial Incentives Alignment

RESPONSE OPTION	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
Count (N=120)	26	52	22	14	6
Percentage (%)	21.7%	43.3%	18.3%	11.7%	5.0%

Inference: A combined majority of 65.0% feel their compensation is market-aligned, while 16.7% express disagreement, indicating a potential segment vulnerable to external recruitment offers.

Table 4.7: Perceived Quality of Technical Infrastructure and Analytics Software Tools

RESPONSE OPTION	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
Count (N=120)	48	46	16	6	4
Percentage (%)	40.0%	38.3%	13.3%	5.0%	3.3%

Inference: Infrastructure support receives highly positive marks, with 78.3% affirming that the workspace tools and technical facilities provided are structured optimally for daily execution

Table 4.8: Satisfaction with Performance Analytics Transparency and Promotion Tracks

RESPONSE OPTION	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
Count (N=120)	16	34	42	20	8
Percentage (%)	13.3%	28.3%	35.0%	16.7%	6.7%

Inference: High neutrality is visible, with 35.0% choosing a neutral stance and a combined 23.4% actively expressing dissatisfaction. This highlights a clear need for corporate leadership to clarify long-term career progression frameworks.

Table 4.9: Managerial Transparency and Data-Backed Supervisor Support

RESPONSE OPTION	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
Count (N=120)	50	44	14	8	4
Percentage (%)	41.7%	36.7%	11.7%	6.7%	3.2%

Inference: Management communication is a key positive factor, with 78.4% of respondents reporting supportive, metricsbased guidance from their immediate team leads.

Table 4.10: Perceived Adequacy of Work-Life Balance and Burnout Metrics

RESPONSE OPTION	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
Count (N=120)	12	30	30	36	12
Percentage (%)	10.0%	25.0%	25.0%	30.0%	10.0%

Inference: Work-life balance remains a primary challenge, with 40.0% of respondents expressing dissatisfaction with high workloads and shift pressures.

4.2 Advanced Hypotheses Evaluation via Inferential Analytics

Table 4.11: Chi-Square Test Matrix: Educational Levels vs. Training Content Satisfaction

STATISTICAL PARAMETER	COMPUTED VALUE	DEGREES OF FREEDOM (DF)	ASYMP. SIG. (2-SIDED P-VALUE)
Pearson Chi-Square	61.405	48	0.092
Likelihood Ratio	65.220	48	0.051
Valid Case Pool (N)	120		

Statistical Interpretation:

The computed Pearson Chi-Square test value is 61.405 with 48 degrees of freedom, giving an asymptotic significance value of $P = 0.092$. Because $P > 0.05$, the statistical test falls short of the required threshold for significance at the 5% confidence level. Consequently, the null hypothesis (H_0) is formally accepted. This confirms that an employee's educational background does not systematically alter their satisfaction with current corporate training programs.

4.2.1 Pearson Product-Moment Correlation Analysis

To measure the structural relationship between individual monthly salary levels and long-term workforce job satisfaction scores, a standard Pearson correlation coefficient evaluation was conducted: Calculated Pearson Correlation Coefficient (r): 0.284 Statistical Significance Margin (2-tailed, P-value): 0.002 The evaluation yields a positive coefficient value of $r = 0.284$ with a P-value falling well below the critical 0.01 threshold. This confirms a statistically significant, direct positive correlation. The data demonstrates that higher compensation tiers are reliably associated with elevated job satisfaction and increased corporate loyalty among employees.

5. EMPIRICAL FINDINGS AND INSIGHTS

Demographic Frameworks: The production environments of Xascom Info Solutions are heavily reliant on a younger demographic, with 75.0% of personnel under 35 years of age, a male majority (65.0%), and a highly qualified undergraduate talent core (55.0%). **Retention Anchors:** Workplace technology structures (78.3% positive satisfaction) and immediate supervisor relationships (78.4% positive validation) serve as the strongest internal factors promoting workplace stability.

Primary Drivers of Turnover Risk: High career path ambiguity (23.4% active dissatisfaction, 35.0% neutrality) combined with systemic operational fatigue (40.0% work-life balance dissatisfaction) represent the main catalysts for voluntary attrition. Compensation Effects: Salary distributions remain heavily concentrated in the mid-market band (56.7%). The correlation modeling confirms that proactive salary tracking has a direct, statistically verified impact on reducing early-stage employee exits.

6. STRATEGIC RECOMMENDATIONS

Implementation of Data-Driven Promotion Frameworks: Xascom Info Solutions LLP should transition from manual reviews to clear, analytics-linked career development paths. Providing visible 12-month promotional horizons can help address career path ambiguity and enhance long-term commitment. Deploying Algorithmic Shift Optimization: To address the 40.0% dissatisfaction rate regarding work-life balance, management should implement automated shift scheduling systems and regular wellness checks, helping to mitigate stress during intensive delivery periods. Expanding Skill Enrichment Pipelines: Since undergraduate specialists form the majority of the workforce, offering industry-recognized technical certifications can help meet personal growth needs while improving firm capabilities. • • • • • 1. 2. 3. Page 8 Personalizing Benefits Packages via Analytics: Human resource teams should update compensation strategies to include performance bonuses and wellness incentives alongside base salary increments, directly targeting key drivers of employee commitment.

7. CONCLUSION

This comprehensive empirical research investigated the workplace factors determining employee job satisfaction within Xascom Info Solutions LLP at Chennai. The findings demonstrate that modern talent management requires a balanced approach beyond basic financial remuneration. While market-aligned salaries establish an essential baseline, long-term talent commitment relies significantly on vertical growth opportunities, supportive leadership, and sustainable work schedules. By addressing career advancement ambiguity and implementing targeted fatigue-reduction protocols,

Xascom Info Solutions LLP can mitigate voluntary attrition risks, lower recruitment costs, and build a more resilient workforce positioned for long-term organizational success.

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