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ICT Impact on Job Satisfaction Among School Teachers with Reference to West Singhbhum, Chakradharpur

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Abstract: The importance of education has increased due to the growth of information and the specialisation of jobs brought about by scientific and technical advancements. Racial shift affects the whole social structure. This study will combine exploratory and descriptive research methods, drawing heavily on primary and secondary sources of information. According to the instructors' feedback, ICT training had a profound effect on their outlook and competence. Nevertheless, it was emphasised that trainings should be highly applicable to teachers' requirements and tied to classroom practices within the larger system of educational organisation. This includes factors like time, curriculum, resources, and environment.

Keywords: ICT, Impact, Job satisfaction, Teachers

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INTRODUCTION

"A student visits the campus for 25,000 hours. The greatest educators who can impart moral values, enjoy what they do, and are capable of teaching must work at the school.

-A.P.J. Abdul Kalam

Our democratic nation's future rests on a strong and innovative educational foundation. High-level testing and accountability were introduced throughout the 1990s. As expectations grow and the need for academic gains becomes more pressing, the new century promises to demand even more surrender from educators, students, and principals.

According to Evans (2000), teachers' interest, dedication, and performance in the classroom are all positively impacted by their level of work satisfaction, which in turn boosts their motivation, morale, and overall job satisfaction. Work satisfaction is an excellent indicator of loyalty to one's employer, according to many studies (Busch et al., 1998; Chiu-Yueh, 2000; Freund, 2005; Mannheim et al., 1997). An individual's commitment to their work gradually increases as they spend more time with the company, according to some academics, while job satisfaction is a reflection of one's emotional responses to the job. That is, after a thorough assessment of the company one is working for, including its principles, expectations, and one's own potential inside the company. Consequently, contentment in one's work is thought to be a component that propels dedication to one's organization. According to research (Mannheim et al., 1997), employees who report high levels of job satisfaction are also more likely to remain loyal to their employer. Three aspects of burnout were investigated by Nagar (2012).

(Tarafdar et. al., 2007) said that use of ICT impacts life and work through both direct and indirect means. As per (Ghorchian et. al., 2005) ICT as a powerful instrument, is applied to increase the quality of higher education, thereby, maintaining economic aspects. According to (Lau et. al., 2006) use of ICT as teaching-learning tool is now rapidly expanding into education. Also (Collis & Moonen, 2001) found that literature review shows difference between ICT learning, learning with ICT, and through ICT, and understanding of this difference is important

for faculties to integrate ICT in their lecture delivery.

The importance of education has increased due to the growth of information and the specialisation of jobs brought about by scientific and technical advancements. Racial shift affects the whole social structure. It is very intricate and multifaceted. The current state of technology is causing a number of changes in society. We still have a lot of national ambitions to accomplish. The sustained attempts to accomplish these objectives have not been successful. The goal of making primary education accessible to everyone has not been met, despite the constitution's guarantee of free and obligatory education up until the age of 14. The three key obstacles—halting dropout rates, raising learning attainment to a sufficient degree of excellency, and reducing inequalities in educational outcomes—remain the same. It indicates that there may be an issue with the implication section. Therefore, at every level of education, a teacher must start long-term, focused efforts in this direction.

A teacher builds a differentiation. A skilled teacher may spark a child's desire to study. A master educator manipulates the sparkle to start an enduring fire. A teacher has the ability to inspire a child's motivation to learn. The fundamental abilities that students acquire, such as competence, effectiveness, personality traits, and behaviours, must be possessed by teachers. The desire of students to study is influenced by these abilities. A teacher's job is to establish a connection with every student in order to foster their passion and zeal for learning.

Instructors facilitate the holistic growth of their pupils, which is only achievable when they are themselves well-rounded. He or she must possess a wide range of abilities. He or she may provide positive, fruitful, and high-quality education to society since it is in their hands that our children's futures are shaped.

METHODOLOGY

Research Design

This study was combine exploratory and descriptive research methods, drawing heavily on primary and secondary sources of information.

Sample

Teachers from the Chakradharpur area in west Singhbhum, who are considered a universal representative sample, was provided the data for the research.

Sampling Technique

This research was using a judgmental sampling approach.

Data Collection Method

Questionnaires are a great way to get people to fill up their own reports by asking them a series of questions. An easy way to collect data from a dispersed sample is to use a questionnaire. Respondents to a structured questionnaire are presented with multiple-choice questions and are asked to choose the answer that most closely reflects their own opinion.

Data were retrieved from university websites and yearly reports to learn about schools, their departments, courses, and facilities.

Validity and Reliability of the Research Instrument

To guarantee internal validity, we were use measurement approaches including content validity and facial validity. In order to verify that the instrument assessed the variables it were designed to measure, the data obtained from the participants in the pilot research was examined.

Data Analysis:

Utilising an independent t-test, we were examining the gender-specific mean scores across public and private institutions. To compare the means of the three or more independent samples, this research additionally was used one-way ANOVA. The statistical packages MSEXCEL, SPSS 20, and AMOS 20 was used to carry out the aforementioned analyses.

RESULT & INTERPRETATION

- **Impact of ICT on job satisfaction among school teachers**

The analysis of the mean and standard deviation values for various ICT-related statements provides significant insights into teachers' perceptions of technology's impact on their job satisfaction. The statement *"ICT tools have made teaching more efficient and engaging"* received the highest mean score of 4.12 with a standard deviation of 0.78, indicating strong agreement among respondents and relatively consistent views on the positive role of ICT in enhancing teaching practices. In contrast, the statement *"I have received adequate training to use ICT tools effectively"* had a lower mean of 3.45 and a higher standard deviation of 0.95, suggesting that while some teachers feel sufficiently trained, there is noticeable variability and a possible lack of uniform access to training opportunities.

Table 1: Mean and standard deviation values for various ICT-related statements provides significant

Statement	Mean	Std. Deviation
ICT tools have made teaching more efficient and engaging.	4.12	0.78
I have received adequate training to use ICT tools effectively.	3.45	0.95
ICT use has increased my satisfaction with the teaching profession.	3.89	0.84
Lack of ICT resources reduces my job satisfaction.	4.01	0.81
My institution promotes the integration of technology in teaching.	3.6	0.9

- **Dimensions of Job Satisfaction among School Teachers**

The first objective of the study was to identify the dimensions influencing job satisfaction. To achieve this, **Exploratory Factor Analysis (EFA)** was employed on the 90 variables to group related items into factors that represent underlying dimensions of job satisfaction. This method helped to reduce the data and reveal key patterns relevant to the satisfaction levels of school teachers in the area. The outcomes of this factor analysis are discussed in the following sections.

Before proceeding with the factor analysis, the **reliability of the data** was tested using **Cronbach's Alpha (α)** to ensure internal consistency among the variables.

Table 2: Reliability Statistics

Cronbach's Alpha	No. of Items
0.872	90

Exploratory Factor Analysis

Factor analysis is a statistical method used for data reduction and to detect structure in the relationships among variables. It identifies underlying unobservable (latent) variables that manifest through observed variables. In this study, the **Principal Axis Factoring** method was used, followed by **Varimax rotation** for factor extraction. Varimax, an orthogonal rotation method, simplifies the interpretation of the factors by maximizing the variance of squared loadings. Factor analysis assumes adequate sample size and correlation between variables; therefore, prior to extraction, suitability tests were performed.

The **Kaiser-Meyer-Olkin (KMO)** Measure of Sampling Adequacy yielded a value of **0.882**, indicating meritorious sampling adequacy. The **Bartlett's Test of Sphericity** returned a significant value ($p < 0.001$), suggesting sufficient intercorrelation between variables to proceed with factor analysis.

Table 3: KMO and Bartlett's Test

Test	Value
KMO Measure of Sampling Adequacy	0.882
Bartlett's Approx. Chi-Square	36505.275
df	4005
Sig.	.000

Confirmatory Factor Analysis (CFA): Reliability and Validity of Job Satisfaction Dimensions

Following the exploratory factor analysis, confirmatory factor analysis (CFA) was employed to validate the structure of the identified dimensions of job satisfaction among school teachers in Chakradharpur, West Singhbhum (N = 500). While exploratory factor analysis (EFA) highlights underlying patterns among variables and identifies potential groupings based on high factor loadings, CFA is essential for verifying whether the observed variables accurately represent the proposed latent constructs.

Corresponding reliability and validity metrics are reported in **Table 4.**

Table 4: Reliability and Validity Measures for Job Satisfaction Constructs

Construct	CR	AVE	MSV	ASV	R&D	COMP	SCP	AE	WE	TIN	COFM	ABS	ABAS	FAC
R&D	0.905	0.656	0.096	0.040	0.810									
COMP	0.963	0.743	0.069	0.023	0.142	0.862								
SCP	0.958	0.639	0.061	0.028	0.231	0.089	0.799							
AE	0.957	0.688	0.077	0.036	0.278	0.128	0.247	0.829						
WE	0.954	0.657	0.063	0.025	0.251	0.179	0.184	0.208	0.811					
TIN	0.964	0.693	0.044	0.020	0.159	0.070	0.182	0.210	0.091	0.832				
COFM	0.884	0.605	0.052	0.011	0.182	0.014	0.033	0.084	0.062	0.078	0.778			
ABS	0.883	0.655	0.038	0.013	0.083	0.116	0.151	0.195	0.118	0.114	0.066	0.809		

ABAS	0.874	0.584	0.040	0.011	0.084	-0.017	0.142	0.126	0.098	0.200	-0.007	0.021	0.764	
FAC	0.946	0.814	0.068	0.018	0.134	0.260	0.106	0.217	0.062	0.005	-0.001	0.101	-0.121	0.90
ABA	0.956	0.647	0.096	0.036	0.310	0.262	0.182	0.119	0.207	0.167	0.228	0.091	0.067	0.09

The results show that the Composite Reliability (CR) for all constructs exceeds the benchmark of 0.70, indicating consistent internal measurement. Additionally, the Average Variance Extracted (AVE) for each dimension is above 0.50, confirming adequate convergent validity.

Furthermore, for each construct, the AVE is greater than both MSV and ASV, thus supporting discriminant validity. This means that each factor is uniquely measured without significant overlap with other constructs.

Overall, the measurement model used for analyzing job satisfaction among school teachers is found to be statistically sound and valid.

- **Descriptive Analysis**

Service Condition Policies

These policies are crucial in shaping a positive work environment, attracting qualified professionals, and retaining experienced educators. Table 5.1 presents the frequency distribution and descriptive statistics for various service-related parameters.

Table 5: Frequency Distribution and Descriptive Statistics for Service Condition Policies

Variable	HDA	DA	N	A	HA	Mean (SD)
Automatic confirmation	5.2%	18.5%	10.1%	40%	26.2%	3.63 (1.20)
Need to pressurize authorities	12.6%	29.9%	13.8%	33.6%	10.1%	2.99 (1.24)
Promotion norms	5.2%	26.9%	11.9%	35.8%	20.2%	3.39 (1.22)
Annual increments	5.2%	25.9%	9.6%	34.3%	24.9%	3.48 (1.26)
Granting sabbatical/deputation	14.6%	33.1%	10.9%	26.2%	15.3%	2.95 (1.34)
House allotment fairness	13.8%	25.4%	22.7%	24.2%	13.8%	2.99 (1.27)
Retirement benefits	5.7%	23.7%	15.6%	33.3%	21.7%	3.42 (1.22)
Leave policies	9.1%	28.9%	4.4%	34.3%	23.2%	3.34 (1.35)
Teacher selection on merit	4.0%	18.8%	4.4%	43.5%	29.4%	3.76 (1.18)
Participation in admissions	5.9%	21.7%	11.4%	36.8%	24.2%	3.52 (1.24)
Academic schedule adherence	3.0%	16.5%	6.9%	37.3%	36.3%	3.87 (1.16)
Workload fairness	5.4%	22.5%	5.7%	42.7%	23.7%	3.57 (1.22)
Defined performance standards	5.2%	23.2%	3.2%	43.2%	25.2%	3.60 (1.23)

Among the positive indicators, the highest mean score (3.87) was reported for timely communication of examination and teaching schedules, indicating strong approval for institutional discipline and planning. This finding suggests that clear academic calendars enable teachers to prepare effectively, manage instructional responsibilities, and contribute meaningfully to student assessment processes.

Another well-rated policy was the merit-based selection of teachers (mean = 3.76). Educators acknowledged that such practices promote fairness, reduce nepotism, and provide equal opportunities to all applicants, thereby enhancing institutional credibility and satisfaction.

On the other hand, lower mean scores were observed for items concerning bureaucratic delays and favoritism. The need to pressurize authorities for small issues (mean = 2.99), concerns about non-transparent sabbatical/deputation processes (mean = 2.95), and bias in housing allocations (mean = 2.99) reflect dissatisfaction among teachers. These concerns highlight ongoing administrative weaknesses that affect morale and trust in institutional governance.

Technological and Informational Needs

The second major dimension contributing to teacher job satisfaction is the availability and effective use of technological and informational resources. Integrating technology with faculty development initiatives equips teachers with modern competencies and encourages the adoption of internationally recognized pedagogical methods. Access to digital tools and information resources not only supports professional growth but also promotes innovation and enriches classroom delivery, leading to greater job fulfillment.

Table 6 presents the distribution of responses related to various variables under this dimension.

Table 6: **Frequency Distribution and Descriptive Statistics for Technological and Informational Needs (N = 500)**

Variable	HDA	DA	N	A	HA	Mean (SD)
Online access to national/international journals	0	48 (9.6%)	50 (10%)	218 (43.6%)	184 (36.8%)	4.08 (0.902)
Access to online Ph.D. theses	24 (4.8%)	89 (17.8%)	24 (4.8%)	185 (37%)	178 (35.6%)	3.81 (1.205)
Online viva-voce facility	30 (6%)	95 (19%)	25 (5%)	190 (38%)	160 (32%)	3.70 (1.217)
Updated schools website	9 (1.8%)	87 (17.4%)	23 (4.6%)	188 (37.6%)	193 (38.6%)	3.94 (1.064)
Receiving notices via email	10 (2%)	67 (13.4%)	18 (3.6%)	200 (40%)	205 (41%)	4.04 (1.023)
ICT for professional growth	14 (2.8%)	69 (13.8%)	25 (5%)	205 (41%)	187 (37.4%)	3.97 (1.063)
ICT training knowledge gain	28 (5.6%)	66 (13.2%)	18 (3.6%)	192 (38.4%)	196 (39.2%)	3.92 (1.181)
Proper ICT implementation	30 (6%)	87 (17.4%)	34 (6.8%)	185 (37%)	164 (32.8%)	3.73 (1.191)
Teacher involvement in ICT selection	19 (3.8%)	78 (15.6%)	25 (5%)	194 (38.8%)	184 (36.8%)	4.00 (1.101)
Video conferencing availability	24 (4.8%)	125 (25%)	21 (4.2%)	180 (36%)	150 (30%)	3.61 (1.212)
Availability of AV aids/internet	18 (3.6%)	89 (17.8%)	12 (2.4%)	190 (38%)	191 (38.2%)	3.89 (1.079)

Website accessibility	35 (7%)	69 (13.8%)	48 (9.6%)	208 (41.6%)	140 (28%)	3.70 (1.102)

The analysis reveals that the faculty members are generally satisfied with the technological support provided by their institutions, particularly in terms of journal access (mean = 4.08) and receiving regular updates via email (mean = 4.04). These services are instrumental in keeping teachers informed and enhancing their academic output.

However, slightly lower satisfaction is noted regarding online viva-voce facilities (mean = 3.70) and video conferencing arrangements (mean = 3.61), suggesting variability in technological infrastructure and support across institutions. These aspects may require further investment to bridge the gaps, especially in private institutions or smaller campuses.

CONCLUSION

While many service condition policies are functioning well and meeting teachers' expectations, the presence of bureaucratic hurdles and perceived favoritism are detracting from overall job satisfaction. Targeted improvements in transparency, process efficiency, and accountability could significantly enhance the service environment for educators in Chakradharpur.

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