

A Study on Human Resource Process Efficiency: Recruitment, Attendance Tracking, and Payroll Practices in an IT Company in Chennai

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Abstract

The main function of Human Resource Management is very critical to organisational performance, and among the various activities carried out by people managers, recruitment, attendance, and payroll are the issues that employees interact with directly. This paper aimed to assess the efficiency of these three functions in a software development and IT services company. The study adopted a descriptive research design. The target population was 100 employees. Data was collected from the sample using a five-point Likert Google Forms questionnaire. Convenience sampling was used to select the sample from the target population. Statistical analysis was done using percentage analysis, descriptive statistics, Pearson's correlation, and chi-square test. The study revealed that the employees have a positive perception towards the recruitment process, attendance, and payroll process. Each of the three variables had a mean score above the average point and had a good Cronbach's Alpha ranging between 0.708 to 0.812. There was a statistically significant correlation between the three variables, with the two process having the highest correlation ($r = 0.676$, $p < 0.001$). The chi-square test showed that gender is not a predicting factor of one's perception of the recruitment process. The study recommends the combination of the three human resource management functions in an integrative information system to enhance employee satisfaction and achievement.

Keywords: Human Resource Management, Recruitment Process, Attendance Tracking, Payroll Process, Employee Satisfaction, HR Efficiency.

Introduction

Human Resource Management remains one of the most essential functions of any organisation since employees represent its main resource, without which it is unable to operate. Thus, the management of personnel processes, ranging from planning and acquisition to development, retention, and overall management falls under Human Resource Management's responsibilities, ensuring that the former is able to secure, maintain, and develop competent and motivated employees. As a result, it acquires great importance for any firm as it allows for managing the processes of recruitment, attendance, and payroll effectively. When examining the processes of recruitment, attendance, and payroll together, one would see that they form a coherent unit. Recruitment ensures that the former manages to fill vacant positions with suitable candidates, attendance records and registers present workers' presence, and payroll processes salaries to employees in accordance with the data generated by attendance. As a result, it becomes possible that the failure in one of the areas entails negative

consequences for the others. For example, errors introduced during recruitment can lead to incorrect data being entered for the employees, and those present in attendance records can create disparities in the payroll distribution, and undermine workers' trust and motivation. However, the current paper seeks to analyse this triad with regard to the operations of a IT software development and IT services company. Given that alongside core services, the organization started providing professional training and internship opportunities for young specialists, it becomes crucial for its management to ensure that recruitment, attendance, and payroll are properly managed to continue delivering high-quality results regardless of the increased scope of operations. Therefore, the current study aims to assess how these three processes are managed within the firm IT Industries, identify key issues and areas of improvement.

Review of Literature

Woods, Ahmed, Nikolaou, Costa, Anderson (2020) investigated the role of online application, psychometric tests, and digital interviews in the selection process of employees concluding that the use of digital methods offers faster and easier recruitment but requiring validation to ensure its validity, fairness, and reliability.

Raghavan, Barocas, Kleinberg, Levy (2020) assessed the role of algorithmic hiring concluding that it may perpetuate social and demographic biases encoded in the system necessitating audits of such discrimination sources and the inclusion of human judgement.

Köchling, Wehner (2020) assessed the role of algorithmic practices in human resources concluding that while they make recruitment cheaper and faster, they also introduce new sources of error that are discriminatory towards some applicants highlighting the need to develop responsible algorithms.

Masele, Kagoma (2023) determined the role of human capital management information system on payroll reliability in public Universities concluding that payroll reliability depends on the trustworthiness, accessibility, and accountability of information in the human resource management information system necessitating periodical audits to reduce errors in payroll.

Triasari, Maria, Lisnawanty (2022) determined the weaknesses and impacts of manual attendance and payroll concluding that the errors in manual attendance registers directly affect the accuracy of salaries unless there are strict auditing procedures, suggesting the use of software such as accounting information system that links attendance data to payroll.

Wiradarma, Dirgayusari, Wardani (2022) initiated the development of web based attendance and payroll system concluding that manual processing of attendance and payroll data was time-consuming resulting in errors necessitating their integration into one system that facilitates the generation of attendance report and payroll data with ease.

Homaidi, Lidimilah, Prasetyo, Azizah (2023) initiated the development of attendance information system using QR code and location to avoid manual attendance marking and recording concluding that the new system would increase the precision and speed of salary processing due to its elimination of manual recording.

Gunawan, Suwiryono, Tanjung (2024) assessed the role of information system in payroll administration in a government agency concluding that a good payroll information system reduces errors and increases trust in the accuracy of salaries in the organisation while manual recording and marking of attendance has many weaknesses and is, therefore, not reliable.

Tauzy, Asri (2026) assessed the strengths and weaknesses of integrated attendance and payroll information system using

DeLone and McLean model concluding that the model's success factors; system and information quality were key to achieving higher user satisfaction and improving payroll information system.

Kellogg, Valentine, Christin (2020) assessed the use of algorithms and digital surveillance in employee management concluding that while it increases organisational productivity and control, there is a danger in relying on algorithms to monitor employees due to the loss of trust by the employees if the process is not well explained.

Research Gap

Much of the existing research explores recruitment, attendance tracking, and payroll as isolated HR processes, emphasizing either their design or performance evaluation within a single information system. There is limited empirical research integrating the three processes to understand how they

complement each other while being implemented in practice, especially in the context of Indian IT-services organisations

Objectives of the Study

- To study the Human Resource Management practices with special reference to recruitment, attendance tracking, and payroll process.
- Secondary Objectives •
- To identify the effectiveness, fairness, and transparency of the recruitment and selection process.
- To examine the accuracy and reliability of the attendance-tracking system, including leave, late attendance, and overtime records. •
- To analyse the accuracy, timeliness, confidentiality, and clarity of the payroll process, including salary, deductions, and payslips
- .• To measure employee satisfaction and suggest suitable measures to improve recruitment, attendance tracking, and payroll practices

Hypotheses

Hypothesis Statements Hypothesis

- Null hypothesis: Gender is not significant to the respondents' perception of the recruitment process. Alternative hypothesis: Gender is significant to the respondents' perception of the recruitment process. Hypothesis
- Null hypothesis: There is no significant relationship among recruitment, attendance tracking, and payroll process efficiency. Alternative hypothesis: There is a significant relationship among recruitment, attendance tracking, and payroll process efficiency.

Methodology Research Design

The selected descriptive research design to conduct the study because it allows investigating the current status of human resource management practices and the perceptions of the respondents towards them since they are not controlled. The design will enable me to come up with conclusions regarding the relationship between recruitment, attendance tracking, payroll process and employee satisfaction.

Population and Sample The population of the study includes employees, human resource practitioners, managers, business people, and students with work experience in different organizations representing various departments. There are no many people with work experience in the field of human resource management. Therefore, a sample size of 100 respondents from different age groups, education levels, and professional categories will be adequate.

Sampling Technique

The convenience sampling technique is to get the sample of respondents from the target population because it is cost effective and quick way of getting a sample from a target population since the selection will be made based on availability and willingness. However, the sample size will not be large due to time constraints.

Data Collection

The primary data gathered from a questionnaire is to carry out the study. I will use Google forms to come up with a questionnaire comprising of Part A for the demography of the respondents and Parts B, C and D for the perception and experience of the respondents towards the recruitment process, attendance tracking and payroll process respectively. Secondary data from books, journals and previous research will also be used in this study. **Measurement Scales** Each of the statements from Part B, C and D of the questionnaire will be scored on a five point scale which includes strongly agree (5), agree (4), neutral (3), disagree (2) and strongly disagree (1).

Statistical Tools

Percentage analysis, descriptive statistic analysis, pearson product moment correlation and chi-square test will be used to analyze the data collected from the study. **Ethical Considerations** The survey will be conducted by ensuring voluntary participation of the respondents. They should also be informed

that the information gathered will be used for academic purposes only. In addition, the anonymity and confidentiality of the respondents will be ensured.

Analysis and Interpretation

Table 1: Demographic Profile of Respondents

Demographic Variable	Category	Frequency	Percent (%)
Age	Below 20	29	29
	21–25	37	37
	25–30	19	19
	Above 30	15	15
Gender	Male	62	62
	Female	38	38
Highest Education Qualification	UG	21	21
	PG	34	34
	Professional Course	39	39
	Other	6	6
Current Status	Student	40	40
	Intern	12	12
	Employee	31	31
	Self-Employed	17	17
Department / Field	HR	14	14
	Marketing	28	28
	Finance	29	29
	IT	11	11
	Operations	10	10
	Others	8	8
Work / Internship Experience	Less than 3 months	44	44
	3–6 months	24	24
	6–12 months	20	20
	More than 1 year	12	12
Organization Type	Manufacturing	27	27
	Healthcare	7	7
	Education	25	25
	Retail	9	9
Company Size	Others	32	32
	Small	33	33
	Medium	40	40
	Large	27	27

Interpretation

According to the results, most respondents fall under the 21–25 age bracket (37%), and the majority of the participants are male (62%). The biggest group in the survey has respondents with qualifications at a professional course level (39%), while 34% have postgraduate degrees. Additionally, most participants (40%) are at the stage of being students (interns). The study indicates that interns and those at the beginning of their professional journey comprise a significant portion of the target audience. Most respondents have been working or interning within the same field for less than three months (44%), and the survey covers a wide range of departments, with Finance (29%) and Marketing (28%) being the most frequent ones. As for the organisation profile, respondents mostly selected the options 'Other' (32%) and 'Medium' (40%). Overall, the majority of respondents identified as students or employees with an entry-level position. Thus, the survey attracts a significant number of participants with an entry-level status in various departments and sizes of organizations.

Table 2: Descriptive Statistics — Recruitment Process

Code	Statement	Mean	Std. Deviation
R1	The recruitment process is fair and transparent.	4.53	0.771
R2	Job vacancies are communicated clearly to applicants.	4.00	0.651
R3	The job description provided is accurate and complete.	3.65	0.821
R4	The selection process is conducted professionally.	3.84	0.748
R5	Recruitment procedures are completed within a reasonable time.	4.06	1.062
R6	Interview schedules are communicated effectively.	3.82	0.821
R7	Recruitment documentation is handled efficiently.	3.65	0.857
R8	Equal employment opportunities are provided to all candidates.	3.89	0.695
R9	Recruitment decisions are based on merit and qualifications.	4.20	0.841
R10	Overall, I am satisfied with the recruitment process.	3.99	0.718

Interpretation

The mean scores of the recruitment statements (R1–R10) range from 3.65 to 4.53, all above the midpoint value of 3.00, indicating that respondents generally hold a favourable perception of the organisation's recruitment practices. R1 (fair and transparent process) recorded the highest mean of 4.53, reflecting strong agreement, while R3 (job-description accuracy) and R7 (recruitment-documentation efficiency) recorded the lowest mean of 3.65 — still a positive rating, but pointing to relative scope for improvement. Standard deviation values range from 0.651 to 1.062, indicating a moderate and reasonably consistent spread of opinion among respondents. Overall, recruitment at IT Industries is perceived as fair, transparent, and merit-based, with communication and documentation identified as the areas most in need of strengthening.

Table 3: Descriptive Statistics — Attendance Tracking

Code	Statement	Mean	Std. Deviation
A1	The attendance system is easy to use.	4.26	0.928
A2	Attendance records are maintained accurately.	4.14	0.620
A3	The attendance tracking system is reliable.	3.65	0.821
A4	Attendance policies are clearly communicated.	3.95	0.730
A5	Biometric attendance captures attendance accurately.	4.28	0.842
A6	Attendance reports are generated on time.	4.14	0.766
A7	Attendance discrepancies are resolved promptly.	3.64	0.785
A8	Attendance tracking supports payroll accuracy.	3.95	0.716
A9	Employees receive timely updates regarding attendance records.	4.24	0.900
A10	Overall, I am satisfied with the attendance tracking process.	3.91	0.780

Interpretation

The mean scores of all the statements (A1-A10) varied between 3.64 and 4.28, suggesting that on average, employees are satisfied with the system's ability to accurately track their attendance and positively impact the payroll process. Notably, the mean score of A5 (accuracy of biometric machines) (4.28) was the highest across all statements, followed by A1 (ease of use of the attendance management system) (4.26). On the contrary, the mean score of A7 (resolution time) (3.64) was the lowest among all statements. The standard deviation (SD) of the attendance management survey ranged between 0.62 and 0.928, which indicates moderate variance in the results. In general, the attendance tracking system is regarded by employees as accurate, reliable, and efficient for payroll processing, but its resolution time is needed to be improved.

Table 4: Descriptive Statistics — Payroll Process

Code	Statement	Mean	Std. Deviation
P1	Salaries are paid on time.	4.27	1.014
P2	Payroll calculations are accurate.	3.94	0.789
P3	Payslips are provided regularly.	3.58	0.794
P4	Salary deductions are clearly explained.	3.84	0.896
P5	Payroll records are maintained accurately.	4.03	1.077
P6	Tax (TDS) deductions are calculated correctly.	3.74	0.917
P7	Payroll queries are resolved promptly.	3.67	0.965
P8	Payroll information is kept confidential.	3.90	0.732
P9	Payroll policies are communicated effectively.	4.08	0.929
P10	Overall, I am satisfied with the payroll process.	3.94	0.802

Interpretation

The mean scores for the payroll statements (P1-P10) were found to be in the range of 3.58 and 4.27, which implies positive attitudes towards payroll management. Indeed, the score for P1 (timely salary payment) was the highest (4.27), and the score for P3 (provision of regular payslips) was the lowest (3.58). This finding suggests that employees are generally satisfied with the timely provision of their salaries. However, it remains needed to improve the regular provision of employees with payslips. The standard deviations (SD) were in the range of 0.732 – 1.077, which implies that participants' responses were moderately spread, but there were no extreme opinions. Overall, the payroll process is positively perceived in terms of its accuracy and confidentiality. Nevertheless, it is recommended to pay special attention to timely and regular provides of payslips.

Table 6: Pearson Correlation Matrix

Variable	Recruitment	Attendance	Payroll
Recruitment	1	0.676***	0.546***
Attendance	0.676***	1	0.483***
Payroll	0.546***	0.483***	1

Correlation is significant at the 0.001 level.

Interpretation

The Pearson correlation analysis reveals that each of the three variables, Recruitment, Attendance Tracking, and Payroll Process, are positively and significantly correlated with each other at $p < 0.001$. The strongest correlation is seen between Recruitment and Attendance Tracking ($r = 0.676$), meaning that organisations with effective recruitment tend to have more reliable attendance tracking. Further, Recruitment and Payroll are moderately correlated with each other ($r = 0.546$), which suggests that properly designed recruitment processes are positively associated with accurate employee records needed for seamless Payroll processing. Attendance Tracking and Payroll also demonstrate a moderate positive relationship ($r = 0.483$), which is explained by the fact that accurate attendance tracking is required for accurate payroll calculations. Overall, based on the analysis, it can be stated that all three variables are positively correlated with each other, meaning that improvement in one area will lead to improvement in others.

Table 7: Chi-Square Test — Gender and Recruitment Process

Test	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.664	18	0.908

Interpretation

The Chi-square test was conducted to determine whether there was an association between the gender of respondents and their perception of the recruitment process. The Pearson Chi-square value is 10.664 ($df = 18$), which is not statistically significant at the 5% level ($p > 0.05$). Thus, the null hypothesis was accepted since gender has no significant impact on the perception of the recruitment process. The male and female respondents have a similar perception of the organisation's recruitment process.

Findings of the Study

Employees view the recruitment process positively using their responses, all with mean scores higher than 3.00, with the fairness and transparency statement scoring highest (4.53).

- Whereas job-description accuracy and recruitment-documentation efficiency were relatively poor recruitment areas (mean = 3.65).
- Employees responded positively to the attendance tracking process (means = 3.64-4.28), with biometric attendance accuracy being the most positively evaluated component.
- However, resolving attendance discrepancies was the least positively evaluated attendance tracking component (mean = 3.64).
- Employees had a positive perception of the payroll process (means = 3.58-4.27), with the timeliness of salary payments registering the highest score.
- On the other hand, regular payslip provision was the least positively evaluated payroll component (mean = 3.58), indicating a need to improve this area.
- The three HR practice indices had reasonable to good reliability with Cronbach's Alpha registering between 0.708 and 0.812.
- The study found a positive correlation among the three HR practices (all p-values > 0.05) with recruitment practice having the highest correlation with attendance tracking ($r = 0.483$), and payroll ($p < 0.001$). <mark id="p_8">
- Gender had no significant influence on the employees' perception of the recruitment process ($\chi^2 = 10.664$, $p = 0.908$)
- In general, the study found that employees are relatively satisfied with the company's current practices in the three HR areas, although there is a need to improve communication, documentation, and disclosure.

Suggestions

- Ensure that the recruitment process remains fair and transparent to promote trust among the employees and attract quality applicants.
- Provide accurate job descriptions to make it easier for applicants to identify the roles' requirements and make informed decisions when responding to job offers.
- Make the recruitment process efficient and digital-friendly by digitizing all required documents while providing appropriate instructions for easy submission and record-keeping.
- Address and resolve all attendance discrepancies amicably and quickly through extensive support or a self-service portal.
- Ensure regular maintenance of biometric attendance machines to keep them working efficiently and accurately.
- Generate and send electronic payslips to employees regularly and securely to ensure there are no inconsistencies or miscommunication regarding salary payments.
- Provide a clear explanation of all payroll components, including deductions, allowances, and taxes (TDS) to help employees understand how their salaries are computed.
- Carry out routine audits of all payroll activities and computations to minimize errors and ensure statutory compliance.
- Consider consolidating all three HR processes into one software system to facilitate faster processing and better management of the combined activities.

Limitations of the Study

- The study is limited to a sample size of 100 respondents, which may not fully represent the opinions and perceptions of all employees across different organizations and industries.
- The study is based solely on primary data collected through a structured Google Forms questionnaire, and the findings depend on the accuracy, honesty, and understanding of the respondents while answering the survey.

- The research focuses only on Human Resource Management practices with special reference to Recruitment, Attendance Tracking, and Payroll Process. Other HR functions such as training and development, performance appraisal, employee engagement, compensation and benefits, and career development are not considered in this study.
- The study was conducted within a limited time period; therefore, changes in organizational HR practices, policies, and employee perceptions over time have not been taken into account

Conclusion

This research investigated the efficiency of recruitment, attendance, and payroll processes at IT industries. The data for the study was gathered from 100 respondents and used to assess the employees' satisfaction with the three aspects of the business. The results of the analysis show that the majority of the sample have a positive perception of the company's recruitment, attendance, and payroll practices, as the mean scores for each of the three areas are above the midpoint of the scale. Additionally, the results of the study demonstrate that the three areas are interrelated, as evidenced by the positive correlation between them. The Chi-square test conducted to evaluate the relationship between recruitment and gender demonstrated no significant association. The study also revealed aspects that should be improved upon to increase employee satisfaction with the above-average frequency: job-description, recruitment documentation, addressing attendance issues, and payslip distribution. The most efficient way to improve the three aspects is to implement an integrated human resource information system, as demonstrated by the positive correlation between them.

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