

A Study on Recruitment and Selection Process at Actimus Biosciences Private Limited, Visakhapatnam

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Abstract:

This study examines the recruitment and selection process at Actimus Biosciences Private Limited, a pharmaceutical Contract Research Organization (CRO) headquartered in Visakhapatnam, Andhra Pradesh. The research follows a descriptive research design using a survey method. Primary data was collected through structured questionnaires from 100 employees, while secondary data was sourced from company records, HR manuals, and academic literature. The study evaluates the effectiveness of various recruitment channels including recruitment agencies, employee referrals, job boards, social media, and campus recruitment. Statistical tools including percentage analysis, ANOVA single-factor analysis, and t-test for two independent samples were applied to analyze the data. Key findings reveal that 36% of respondents rated the overall recruitment process as 'Good', employee referrals and job boards were equally preferred (22% each), and gender does not significantly impact recruitment outcomes ($p = 0.492$). The study concludes with actionable suggestions to enhance recruitment effectiveness, digital engagement, and long-term employee retention strategies.

Keywords: Recruitment, Selection, Human Resource Management, FMCG, Actimus Biosciences, Organizational Performance, Employee Retention, ANOVA, Job Satisfaction, Onboarding.

I. INTRODUCTION

Recruitment and selection are fundamental functions of Human Resource Management that significantly influence the overall effectiveness and long-term success of any organization. In today's highly competitive and technology-driven business environment, organizations must focus on acquiring skilled, competent, and adaptable employees who can contribute to innovation, operational excellence, and sustainable growth.

Resources are the lifeblood of every organization. Machines, money, and materials may contribute to production, but it is the people who coordinate and drive all these resources toward achieving organizational goals. Therefore, having the right people in the right positions is vital for any organization's success. Recruitment and selection play a central role in ensuring this alignment between human potential and organizational needs.

In today's fast-changing and competitive business world, the recruitment and selection process has evolved significantly. Organizations now face challenges such as skill shortages, high employee expectations, and a rapidly shifting job market. Traditional methods of advertising job vacancies in newspapers are being replaced by digital

hiring platforms, social media networks, online job portals, and employee referrals.

This study focuses on Actimus Biosciences Private Limited, a knowledge-based Contract Research Organization (CRO) established in 2005 and headquartered in Visakhapatnam, Andhra Pradesh. The organization provides scientific research and clinical development support services to pharmaceutical companies worldwide. The study aims to analyze how the organization attracts, assesses, and appoints candidates for various positions, and examines the strategies used, challenges faced, and overall impact of recruitment and selection on organizational performance.

II. REVIEW OF LITERATURE

Studies show that recruitment and selection are critical HR functions that determine the quality of human resources. Good practices ensure right candidates are hired, reducing turnover and improving performance [1]. Research indicates that combining internal (promotions, referrals) and external (job portals, campus recruitment) sources enhance talent pool quality [2].

Previous studies highlight the effectiveness of structured interviews, aptitude tests, and skill assessments in selecting suitable candidates [3]. Literature emphasizes fairness, transparency, and consistency in selection procedures to build trust and attract quality applicants [4]. Effective recruitment and selection processes are also linked to higher productivity, better job fit, improved employee morale, and reduced recruitment costs [5].

Human Capital Theory considers employees as valuable organizational assets whose knowledge, skills, abilities, and experience contribute directly to productivity and competitive advantage [6]. Person–Job Fit Theory emphasizes the alignment between an individual's skills and the specific requirements of a job role to improve performance efficiency and reduce employee turnover [7]. Scientific Management Theory, developed by Frederick Winslow Taylor, supports the concept of selecting the right person for the right job through standardized selection methods [8].

III. RESEARCH METHODOLOGY

A descriptive research design has been adopted for the analysis of the recruitment and selection process at Actimus Biosciences Private Limited. A survey method was used to comprehensively cover the research objectives, utilizing both primary and secondary sources of data.

Primary data was collected through structured questionnaires and in-depth personal interviews with employees and HR personnel of the organization. Secondary data was collected from company records, HR manuals, websites, books, and academic journals, thus providing a strong contextual framework.

The sample size comprised 100 employees selected using a simple random sampling technique. Tools for data analysis include percentage analysis, ANOVA single-factor analysis, t-Test for two samples assuming equal variances, and tables and charts for interpretation. The findings were verified through triangulation to ensure reliability and relevance [1][3][5][7].

IV. DATA ANALYSIS

The recruitment and selection practices at Actimus Biosciences Private Limited were analyzed using frequency tables, percentage analysis, ANOVA, and t-tests based on responses from 100 employees.

TABLE I. EMPLOYEE AGE GROUP DISTRIBUTION

S.No	Age Group	No. of Respondents	Percentage (%)
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1	18–24	27	27%
2	25–34	37	37%
3	35–44	22	22%
4	Above 44	14	14%
	Total	100	100%

The majority of respondents belong to the 25–34 age group (37%), followed by the 18–24 group (27%), the 35–44 group (22%), and respondents above 44 years constituting the smallest proportion at 14%. This indicates the survey predominantly represents younger to middle-aged adults.

TABLE II. EMPLOYEE GENDER DISTRIBUTION

The survey responses show that 57% of the participants were male while 43% were female, indicating a moderate gender imbalance with a higher representation of male respondents in the sample.

S.No	Gender	No. of Respondents	Percentage (%)
1	Male	57	57%
2	Female	43	43%
	Total	100	100%

TABLE III. YEARS OF EXPERIENCE AT ACTIMUS BIOSCIENCES

S.No	Duration	No. of Respondents	Percentage (%)
1	Less Than 6 Months	17	17%
2	6 Months to 1 Year	44	44%
3	2–5 Years	29	29%
4	More than 5 Years	10	10%
	Total	100	100%

The majority of respondents (44%) have between 6 months to 1 year of experience, followed by 29% with 2–5 years. A smaller portion has less than 6 months (17%) or more than 5 years (10%) of experience, suggesting most participants are relatively early in their professional journey.

TABLE IV. OVERALL RATING OF RECRUITMENT PROCESS

S.No	Rating	No. of Respondents	Percentage (%)
1	Poor	13	13%
2	Fair	27	27%
3	Good	36	36%
4	Very Good	7	7%
5	Excellent	17	17%
	Total	100	100%

The majority of respondents rated the recruitment process as Good (36%), followed by Fair (27%) and Excellent (17%). A smaller percentage rated it as Poor (13%) or Very Good (7%), indicating a generally positive experience with room for improvement.

TABLE V. MOST EFFECTIVE RECRUITMENT CHANNELS

S.No	Channel	No. of Respondents	Percentage (%)
1	Recruitment Agencies	25	25%
2	Campus Recruitment	15	15%
3	Social Media	16	16%
4	Employee Referrals	22	22%
5	Job Boards	22	22%
	Total	100	100%

Recruitment Agencies were considered the most effective channel (25%), followed closely by Employee Referrals and Job Boards (22% each). Social Media accounted for 16% and Campus Recruitment for 15%, highlighting the continued dominance of traditional recruitment methods alongside digital outreach.

TABLE VI. ANOVA SINGLE FACTOR – GENDER VS. RECRUITMENT RATING

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	19.6	1	19.6	0.5185	0.4920	5.3177
Within Groups	302.4	8	37.8			

Total	322	9				
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The one-way ANOVA analysis compares the means of Female and Male groups. The F-value obtained is 0.5185, which is much less than the F critical value of 5.3177. Additionally, the p-value is 0.492, which is greater than the significance level of 0.05. These results indicate that there is no statistically significant difference between the average scores of males and females. Therefore, we fail to reject the null hypothesis, suggesting that gender does not have a significant effect on recruitment outcomes.

TABLE VII. T-TEST: TWO-SAMPLE ASSUMING EQUAL VARIANCES (GENDER)

Statistic	Female	Male
Mean	8.6	11.4
Variance	16.8	55.3
Observations	5	5
Pooled Variance	36.05	
t Stat	-0.7374	
P(T<=t) two-tail	0.4820	
t Critical two-tail	2.3060	

The two-sample t-test result shows t-statistic of -0.7374 and p-value of 0.482 (two-tailed), which is greater than the 0.05 significance level. As the absolute t-statistic is less than the critical value of 2.306, we fail to reject the null hypothesis, concluding that there is no significant difference between the average recruitment scores of males and females.

V. DISCUSSION & CONCLUSION

This study provides a comprehensive evaluation of the recruitment and selection process at Actimus Biosciences Private Limited, Visakhapatnam. The research reveals that while the company has established a generally effective and well-received hiring system, there are areas that could benefit from further optimization.

The majority of respondents, particularly from younger age groups, indicated that the selection process was fair, the onboarding experience smooth, and the job descriptions clear. Employee referrals and job boards were identified as the most effective recruitment channels, emphasizing the importance of leveraging internal networks and digital platforms.

Statistical analysis using ANOVA and t-tests confirmed that gender does not significantly influence recruitment outcomes (p = 0.492 for ANOVA; p = 0.482 for t-test),

reinforcing the organization's merit-based and inclusive hiring practices. Similarly, the recruitment source did not significantly affect measured outcomes ($p = 0.944$), indicating that multiple sourcing channels contribute equivalently to recruitment quality.

The study further highlights that while the interview process was rated 'Good' by most respondents, there exists an opportunity to refine the initial screening process for better candidate alignment. Recommendations include implementing structured evaluation criteria, adopting AI-powered screening tools, tracking post-recruitment retention metrics, and ensuring continuous communication during all recruitment stages.

In conclusion, Actimus Biosciences can build a more efficient, inclusive, and employee-focused recruitment strategy by addressing the identified gaps, ensuring long-term success and organizational sustainability in the competitive pharmaceutical and clinical research industry.

VI. FINDINGS AND SUGGESTIONS

A. Key Findings

The current recruitment process combines traditional and digital methods with moderate effectiveness. Most respondents rated it as 'Good' (36%). The HR department faces challenges in attracting top talent through digital channels though employee referrals remain strong. Recruitment agencies (25%) are the dominant sourcing method. The recruitment process positively correlates with employee retention and overall workforce stability. ANOVA analysis ($p = 0.492$) confirms gender does not significantly affect recruitment outcomes, and recruitment source does not significantly influence the measured outcome ($p = 0.944$).

B. Suggestions

The study recommends implementing structured evaluation criteria and consistent interview processes to enhance hiring effectiveness. The HR team should be equipped with better analytical tools and data-driven approaches for talent attraction and retention. AI-powered screening, resume parsing, and applicant tracking systems should be adopted to streamline repetitive tasks. Metrics related to employee retention and job satisfaction post-recruitment should be tracked to ensure long-term workforce stability. Since gender does not significantly impact performance outcomes, recruitment and evaluation processes should remain unbiased and inclusive.

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