

Strategic Recruitment and Selection Practices and Employee Selection Effectiveness in Private Hospitals: A Comparative Structural Equation Modelling Study of Raichur and Ballari Districts

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Abstract

Recruitment and selection practices play a critical role in ensuring that private hospitals attract and appoint employees with appropriate qualifications, competencies and job-related capabilities. This study examines the influence of Recruitment Planning (RP), Recruitment Sources (RS), Screening and Shortlisting (SS), Selection Methods (SM), and Fairness and Transparency (FT) on Employee Selection Effectiveness (SE) in private hospitals in Raichur and Ballari districts of Karnataka. A structured questionnaire based on a five-point Likert scale was used to collect responses from 500 employees, comprising 250 respondents from Raichur and 250 from Ballari. Data were analysed using SPSS and AMOS through descriptive statistics, reliability analysis, exploratory factor analysis (EFA), confirmatory factor analysis (CFA), structural equation modelling (SEM), bootstrapping and multi-group SEM. The measurement model demonstrated strong reliability, with Cronbach's alpha values ranging from 0.856 to 0.914, composite reliability from 0.859 to 0.916, and AVE from 0.604 to 0.734. The CFA demonstrated satisfactory model fit ($\chi^2/df = 1.598$, CFI = .974, TLI = .970, RMSEA = .036 and SRMR = .039). The structural model also showed satisfactory fit ($\chi^2/df = 1.660$, CFI = .969, TLI = .964, RMSEA = .038 and SRMR = .042) and explained 71.2% of the variance in Employee Selection Effectiveness ($R^2 = .712$). The standardized path coefficients indicated significant positive effects of Recruitment Planning ($\beta = .181$, $p = .003$), Recruitment Sources ($\beta = .126$, $p = .027$), Screening and Shortlisting ($\beta = .214$, $p < .001$), Selection Methods ($\beta = .251$, $p < .001$) and Fairness and Transparency ($\beta = .337$, $p < .001$) on Employee Selection Effectiveness. Multi-group SEM indicated that the structural relationships did not differ significantly between Raichur and Ballari, with critical-ratio tests ranging from -0.26 to 0.45 ($p > .05$). The findings provide empirical evidence that systematic recruitment planning, appropriate sourcing, rigorous screening, structured selection methods and transparent selection procedures are important dimensions of effective employee selection in private hospitals.

Keywords: Recruitment Practices, Selection Practices, Employee Selection Effectiveness, Private Hospitals, Structural Equation Modelling, AMOS, Raichur, Ballari, Karnataka.

1. Introduction

Human resources constitute one of the most important organizational resources because the knowledge, skills, competencies and experience of employees influence an organization's ability to achieve its strategic objectives. This is particularly important in the healthcare sector, where service delivery depends substantially on the availability of appropriately qualified and competent personnel. From a resource-based perspective, human resources can contribute to organizational value when they possess characteristics that are difficult to substitute

and replicate (Barney, 1991). Consequently, recruitment and selection are not merely administrative activities but important strategic human resource management processes through which hospitals acquire the workforce required to deliver effective healthcare services.

Recruitment represents the process through which organizations identify, attract and encourage potential applicants to apply for available positions. The effectiveness of recruitment can influence the type and quality of applicants entering the selection process and can subsequently affect employee performance and retention (Breugh, 2013). Recruitment planning is therefore important because hospitals need to identify staffing requirements, define job specifications and determine appropriate recruitment sources before initiating the hiring process. The use of multiple recruitment channels, including professional networks and digital recruitment platforms, may further expand the potential applicant pool. However, recruitment effectiveness depends not only on attracting applicants but also on the alignment between recruitment activities and the competencies required for particular healthcare positions.

Selection represents the subsequent process of evaluating applicants and identifying candidates who best satisfy predetermined job-related requirements. Screening and shortlisting, interviews, competency assessment, reference verification and other selection methods provide mechanisms through which organizations can assess candidate suitability. In healthcare organizations, where employees may directly influence service quality and patient care, the consequences of inappropriate selection can extend beyond conventional organizational outcomes. Thus, systematic and job-related selection procedures are particularly relevant to hospitals.

The importance of human resource management in hospitals has been documented in the healthcare management literature. A systematic review of 111 empirical studies on HRM and hospital performance found that HRM practices were associated with a range of employee and organizational outcomes, although the evidence varied across interventions and contexts (Gile et al., 2018). The review also highlighted the importance of contextual characteristics when examining relationships between HRM practices and organizational outcomes. This suggests that recruitment and selection practices should be examined within the specific institutional and geographical contexts in which healthcare organizations operate rather than being treated as universally identical processes.

Another important dimension of selection is fairness and transparency. Selection criteria that are clearly defined, consistently applied and based on job-related considerations can improve the procedural quality of recruitment decisions. Transparent procedures may also provide applicants and employees with greater clarity regarding how selection decisions are reached. From the resource-based perspective, systematic selection can help organizations acquire human capital that contributes to sustained organizational capability (Barney, 1991).

The present study conceptualizes recruitment and selection practices through five dimensions: Recruitment Planning (RP), Recruitment Sources (RS), Screening and Shortlisting (SS), Selection Methods (SM), and Fairness and Transparency (FT). These dimensions are examined as antecedents of Employee Selection Effectiveness (SE). The framework assumes that systematic planning, appropriate recruitment channels, rigorous screening, structured selection methods and transparent procedures can contribute to identifying candidates whose qualifications and competencies correspond to organizational requirements. The study consequently moves beyond examining recruitment or selection as isolated HR activities and considers their combined relationship with selection effectiveness.

Methodologically, the study employs Structural Equation Modelling (SEM) to examine relationships among the latent constructs. SEM is particularly appropriate where theoretical constructs are measured through multiple observed indicators and where both measurement and structural relationships need to be examined simultaneously. Anderson and Gerbing (1988) proposed a two-step approach involving assessment of the measurement model through confirmatory factor analysis followed by examination of the structural model. Accordingly, the present study first evaluates the reliability and validity of the measurement model and subsequently estimates the structural relationships between the five recruitment and selection dimensions and employee selection effectiveness.

The study further incorporates multi-group SEM to examine whether the structural relationships differ between private hospitals located in Raichur and Ballari districts of Karnataka. Such a comparison is relevant because organizational practices may vary across geographical and institutional settings. Rather than assuming that recruitment and selection practices operate identically across the two districts, the study empirically evaluates whether the estimated relationships are statistically comparable.

Against this background, the study aims to provide empirical evidence on the role of strategic recruitment and selection practices in determining employee selection effectiveness in private hospitals. By integrating recruitment planning, recruitment sources, screening and shortlisting, selection methods, and fairness and transparency within a single SEM framework, the study contributes a multidimensional perspective on hospital recruitment and selection. The comparison of Raichur and Ballari further provides a contextual dimension to the analysis and enables assessment of the stability of the proposed structural relationships across the two districts.

2. Review Of Literature

2.1 Recruitment Planning

Recruitment planning represents the initial strategic stage of the recruitment process and involves determining whom to recruit, how to reach potential applicants, what recruitment message to communicate and when recruitment activities should begin. Breaugh (2013) argues that recruitment should be viewed as a series of interconnected organizational decisions rather than simply an activity of attracting applicants. Recruitment activities can influence the quality of applicants entering the selection process and can subsequently affect employee outcomes. Breaugh's work on recruitment strategy further emphasizes that organizations should establish formal recruitment objectives before developing recruitment strategies, thereby creating a logical connection between staffing requirements, recruitment activities and desired outcomes.

From this perspective, recruitment planning provides the foundation for subsequent recruitment and selection decisions. It can involve forecasting workforce requirements, identifying vacancies, defining job specifications, determining competency requirements, establishing recruitment timelines and selecting appropriate recruitment channels. Effective planning is particularly relevant in hospitals because staffing requirements differ across doctors, nurses, pharmacists, technicians, allied health professionals and administrative personnel. A hospital that clearly identifies the knowledge, skills, qualifications and experience required for a position can develop recruitment activities that are more closely aligned with the intended job requirements. Thus, recruitment planning can be viewed as an important antecedent to the quality and effectiveness of employee selection.

The literature therefore suggests a logical relationship between systematic recruitment planning and employee selection effectiveness. Where recruitment objectives and staffing requirements are clearly established, subsequent applicant attraction and evaluation can be aligned with organizational requirements. Accordingly, the present study proposes:

H1: Recruitment Planning has a significant positive influence on Employee Selection Effectiveness.

2.2 Recruitment Sources

Recruitment sources determine the channels through which organizations communicate employment opportunities and attract potential applicants. These may include employee referrals, professional networks, hospital websites, online recruitment portals, social media platforms, educational institutions, recruitment agencies and professional associations. Breaugh (2013) identifies recruitment methods and recruitment targeting as important components of recruitment research and notes that recruitment decisions can influence both pre-hire and post-hire outcomes. The choice of recruitment source is therefore not simply a question of increasing the number of applicants; it also concerns reaching individuals whose qualifications and characteristics are relevant to the organization's staffing requirements.

Different recruitment sources can be particularly relevant to different occupational categories. For example, professional networks and professional associations may provide access to candidates for specialized medical positions, whereas educational institutions may provide access to newly qualified nurses, technicians and allied health professionals. Digital recruitment channels may provide organizations with broader geographical reach and faster access to potential applicants. Recruitment research consequently suggests that organizations need to consider the characteristics of their target applicant groups when determining recruitment strategies (Breagh, 2013).

The recruitment source can also influence the composition and characteristics of the applicant pool available for subsequent screening. In a hospital setting, where positions may have substantially different qualification and competency requirements, using recruitment channels appropriate to each occupational category can potentially improve the alignment between available candidates and job requirements. A recent systematic review of recruitment and retention of allied health professionals in hospitals likewise highlights the importance of understanding factors influencing the availability and attraction of healthcare professionals.

Based on this literature, the present study proposes that the appropriateness and effectiveness of recruitment sources may contribute to the identification of suitable candidates and, consequently, employee selection effectiveness.

H2: Recruitment Sources have a significant positive influence on Employee Selection Effectiveness.

2.3 Screening and Shortlisting

Screening and shortlisting constitute the transition between applicant attraction and detailed candidate assessment. Screening involves evaluating applicants against predetermined eligibility, qualification and job-related criteria, while shortlisting involves identifying candidates who satisfy the requirements for further assessment. In personnel selection, the validity of selection procedures is important because the objective is to identify candidates who are likely to perform effectively in the relevant job. Schmidt and Hunter's (1998) extensive meta-analytic review examined the validity and utility of 19 personnel-selection procedures for predicting job and training performance, demonstrating that selection procedures differ in their predictive validity and practical utility.

In healthcare organizations, screening may include verification of educational qualifications, professional registration, previous employment, relevant experience, technical competencies, references and position-specific requirements. Such procedures are particularly important for positions in which professional qualifications are prerequisites for employment. Screening also provides an opportunity to ensure that candidates progressing to subsequent selection stages meet minimum eligibility requirements before organizational resources are devoted to interviews, competency assessments or practical evaluations.

The effectiveness of screening depends on the extent to which criteria are clearly defined and consistently applied. Job-related screening criteria can help organizations distinguish candidates according to requirements relevant to the position rather than relying exclusively on subjective impressions. Consequently, systematic screening and shortlisting can contribute to a more focused candidate pool and provide a stronger basis for subsequent selection decisions.

The literature therefore provides a theoretical basis for examining screening and shortlisting as a separate dimension of recruitment and selection effectiveness. Accordingly:

H3: Screening and Shortlisting have a significant positive influence on Employee Selection Effectiveness.

2.4 Selection Methods

Selection methods refer to the procedures used to assess shortlisted candidates and determine their suitability for employment. Common methods include structured interviews, written tests, competency assessments, work samples, practical assessments, reference checks, background verification and technical evaluations. The selection

literature demonstrates that these methods vary in their ability to predict subsequent job performance. Schmidt and Hunter (1998), based on a meta-analysis of 85 years of personnel-selection research, reported substantial differences in the validity and utility of selection procedures and highlighted the value of combining complementary assessment methods.

Interview structure is particularly relevant to employee selection. Foster and Godkin (1998), in their healthcare-specific review, argued that employment interviews can constitute a valid component of the hiring process when they are highly structured. Similarly, Levashina et al. (2014) reviewed the literature on structured employment interviews and examined issues including interview structure, reduction of bias through structure, rating scales, question formats and interviewer practices. These findings support the relevance of systematic interview procedures when organizations seek greater consistency in candidate assessment.

For private hospitals, selection methods may need to incorporate both technical and behavioural requirements. A medical or technical position may require assessment of professional knowledge and practical competencies, whereas administrative and support positions may require greater emphasis on communication, problem-solving and organizational competencies. Therefore, the use of multiple job-related selection methods can provide a broader assessment of candidate suitability than reliance on a single assessment procedure.

On this basis, the present study examines selection methods as a distinct predictor of employee selection effectiveness and proposes:

H4: Selection Methods have a significant positive influence on Employee Selection Effectiveness.

2.5 Fairness and Transparency

Fairness and transparency represent an important dimension of recruitment and selection because selection decisions involve judgments about candidates' suitability for employment. Fair selection procedures generally involve the use of consistent, job-related and clearly defined criteria, while transparency concerns the extent to which the relevant procedures and evaluation criteria are understandable to candidates and organizational stakeholders.

Gilliland (1993), through an organizational justice perspective, developed a framework for understanding applicants' reactions to employment-selection systems and emphasized procedural justice in selection processes. His framework identifies procedural rules whose satisfaction or violation can influence fairness reactions to selection systems. This perspective indicates that the way selection procedures are designed and implemented can be relevant not only to the hiring decision itself but also to how the selection process is perceived.

Fairness is also related to consistency in the application of selection criteria. When candidates are assessed using comparable job-related standards, organizations can reduce unnecessary variation in evaluation procedures. Transparency can further involve communicating relevant selection requirements, assessment criteria and procedural expectations. Such characteristics are especially relevant in healthcare organizations because recruitment decisions concern professional roles and can influence perceptions of organizational credibility and trust.

The structured-interview literature also provides a connection between standardized procedures and the reduction of potential bias in assessment. Levashina et al. (2014) specifically reviewed the role of structure in employment interviews, including its relationship with bias reduction and candidate evaluation. Therefore, fairness and transparency can be considered complementary dimensions of systematic selection procedures rather than merely ethical considerations. Accordingly, the present study proposes:

H5: Fairness and Transparency have a significant positive influence on Employee Selection Effectiveness.

2.6 Recruitment and Selection in Healthcare

Recruitment and selection in healthcare have characteristics that distinguish them from many other employment contexts. Hospitals require employees from multiple occupational categories, including physicians, nurses, pharmacists, technicians, allied health professionals and administrative personnel. These occupations differ in their qualification requirements, professional responsibilities and competency expectations. Consequently, recruitment and selection systems need to accommodate differences in job requirements while maintaining consistent organizational procedures.

The healthcare literature also demonstrates the importance of human resources to healthcare-system functioning. A recent scoping review of India's health sector identifies shortages and distribution of health human resources as important issues for effective healthcare delivery (Mehta et al., 2024). Similarly, research specifically examining hospital recruitment has highlighted the importance of understanding the factors affecting the attraction and retention of healthcare professionals (Baumgartner et al., 2024). These studies provide a broader context for examining how hospitals organize their recruitment and selection processes.

Within this context, recruitment planning, recruitment sources, screening and shortlisting, selection methods, and fairness and transparency can be viewed as interconnected components of the staffing process. Recruitment planning establishes workforce and job requirements; recruitment sources determine how potential candidates are reached; screening and shortlisting narrow the applicant pool according to predetermined criteria; selection methods provide mechanisms for assessing candidate suitability; and fairness and transparency influence the consistency and procedural quality of the selection process. Examining these dimensions together therefore provides a more comprehensive basis for understanding employee selection effectiveness in private hospitals.

However, the existing literature does not necessarily establish that each of these dimensions will have an identical influence across different healthcare settings. The present study addresses this issue by examining the five dimensions simultaneously through structural equation modelling and subsequently comparing the structural relationships between private hospitals in Raichur and Ballari districts. This provides a context-specific empirical framework for evaluating whether recruitment and selection practices are associated with employee selection effectiveness and whether the observed relationships are comparable across the two districts.

Synthesis of the Literature

The literature reviewed above establishes five theoretically relevant dimensions of recruitment and selection. Recruitment Planning concerns the strategic preparation of staffing and recruitment activities; Recruitment Sources concern the mechanisms used to reach potential applicants; Screening and Shortlisting concern preliminary evaluation against job-related requirements; Selection Methods concern the systematic assessment of shortlisted candidates; and Fairness and Transparency concern the procedural quality and consistency of selection decisions. Prior research provides support for examining recruitment methods, selection procedures, structured interviews and procedural fairness as important elements of staffing systems.

These five dimensions provide the theoretical basis for the proposed SEM framework, in which each dimension is specified as an exogenous latent construct predicting Employee Selection Effectiveness. The framework therefore translates the literature into five empirically testable hypotheses (H1–H5), followed by comparative multi-group analysis of Raichur and Ballari.

Research Gap

Although previous studies have examined recruitment methods, selection procedures, structured interviews and fairness in human resource management, limited empirical research has examined these dimensions simultaneously in the context of private hospitals in the Kalyana Karnataka region. Existing literature also provides limited evidence on how Recruitment Planning, Recruitment Sources, Screening and Shortlisting,

Selection Methods, and Fairness and Transparency collectively influence Employee Selection Effectiveness. Furthermore, relatively little attention has been given to district-level comparative evidence between Raichur and Ballari using Structural Equation Modelling (SEM) and Multi-Group SEM. The present study addresses these gaps by developing and empirically testing an integrated SEM framework for private hospitals in the two districts.

3. Theoretical Background

3.1 Human Capital Theory

Human Capital Theory provides the primary theoretical foundation for understanding recruitment and selection in the present study. The theory, principally associated with Becker (1964), conceptualises employees' knowledge, skills, competencies, education and experience as forms of capital that can generate productive value for organisations. From this perspective, employees are not merely labour inputs; their accumulated capabilities represent resources that can contribute to organisational performance. Consequently, organisations need mechanisms for identifying and acquiring individuals whose human capital corresponds to their specific job requirements.

Recruitment and selection constitute important organisational mechanisms for acquiring such human capital. Recruitment determines how potential candidates are attracted into the applicant pool, while selection determines how candidates are assessed and chosen according to their qualifications and competencies. In the context of private hospitals, this perspective is particularly relevant because different healthcare positions require distinct combinations of professional qualifications, technical knowledge, practical competencies and experience. Systematic recruitment planning, appropriate recruitment sources, effective screening and suitable selection methods can therefore help hospitals identify candidates whose human capital is aligned with job requirements. The theory consequently provides a foundation for examining the relationship between recruitment and selection practices and Employee Selection Effectiveness.

3.2 Resource-Based View

The Resource-Based View (RBV) provides a second theoretical foundation for the study. Barney (1991) argues that organisational resources and capabilities can provide a basis for sustained competitive advantage when they possess characteristics that make them valuable and difficult for competitors to replicate or substitute. From this perspective, human resources can constitute strategically important organisational resources when employees possess knowledge, skills and competencies that contribute to organisational objectives.

In healthcare organisations, professionally qualified and competent employees are particularly important because service delivery depends substantially on specialised human capabilities. Recruitment and selection therefore serve as mechanisms through which hospitals acquire and develop their human-resource base. Recruitment planning helps establish the required workforce capabilities, recruitment sources provide access to potential talent, screening identifies candidates meeting specified requirements, and selection methods facilitate systematic assessment of candidate suitability. The RBV consequently supports the proposition that effective recruitment and selection practices can contribute to the acquisition of human resources that strengthen organisational capability. In the present study, this theoretical perspective supports the examination of Recruitment Planning, Recruitment Sources, Screening and Shortlisting, and Selection Methods as predictors of Employee Selection Effectiveness.

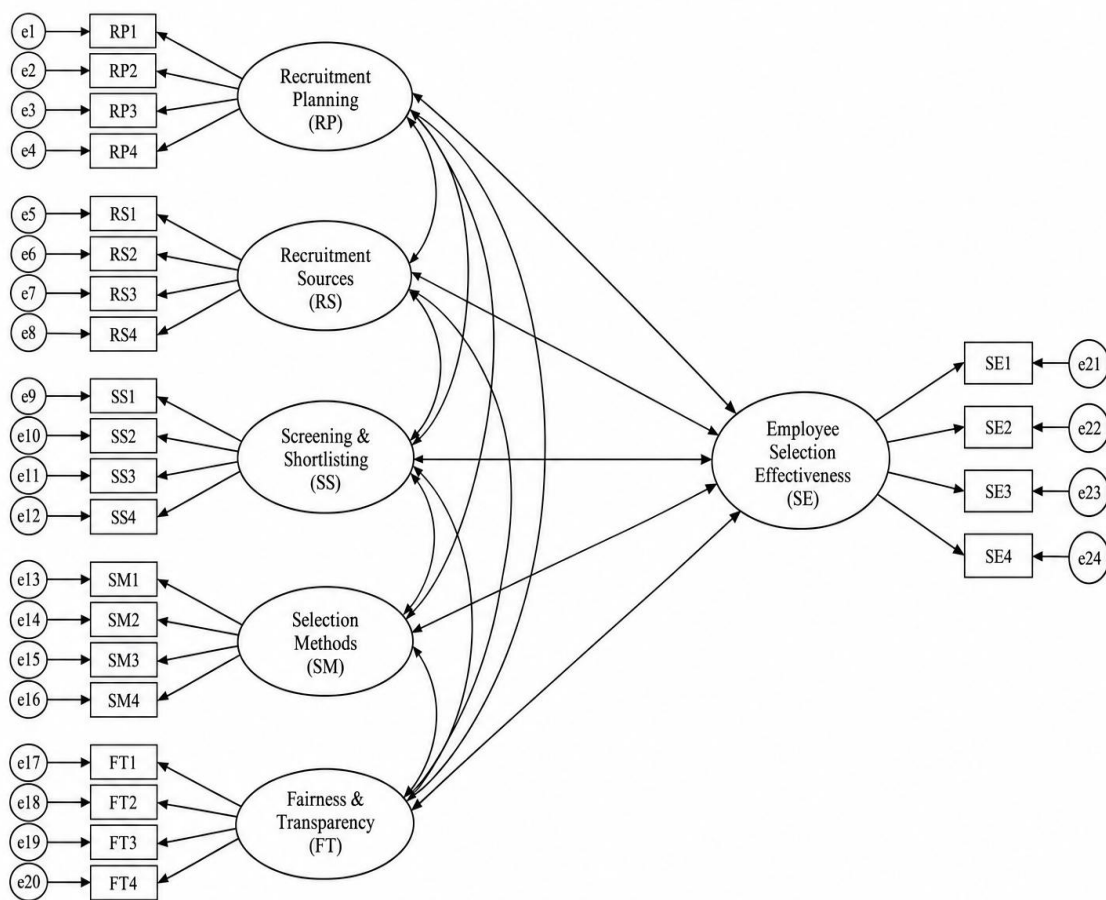
3.3 Procedural Justice Perspective

The Procedural Justice Perspective provides the theoretical basis for incorporating Fairness and Transparency into the proposed model. Procedural justice concerns the perceived fairness of the procedures through which decisions are made, rather than focusing exclusively on the outcomes of those decisions. Gilliland (1993), applying an organisational justice perspective to employee selection, highlighted the importance of applicants' perceptions of fairness in selection systems. Fair and consistently applied procedures can influence how individuals perceive and respond to organisational selection processes.

Within recruitment and selection, procedural justice is reflected in the use of clearly defined criteria, consistent assessment procedures, job-related evaluation standards and transparent decision-making processes. In private hospitals, where recruitment involves professionals with different qualifications and responsibilities, consistent application of selection criteria can contribute to the procedural quality of hiring decisions. Accordingly, the present study incorporates Fairness and Transparency (FT) as a distinct construct and examines its relationship with Employee Selection Effectiveness. The Procedural Justice Perspective therefore complements Human Capital Theory and RBV by explaining the importance of how recruitment and selection decisions are made, while the other theories primarily explain the importance of what human resources are acquired and why they are strategically relevant.

4. Conceptual Framework

Figure 1. Proposed Conceptual Model of Recruitment and Selection Practices



5. Research Objectives

The study aims to (i) examine the effects of Recruitment Planning, Recruitment Sources, Screening and Shortlisting, Selection Methods, and Fairness and Transparency on Employee Selection Effectiveness; (ii) validate the proposed measurement model using CFA; (iii) empirically test the proposed structural model using SEM; and (iv) compare the structural relationships between Raichur and Ballari using Multi-Group SEM.

6. Hypotheses Of The Study

Based directly on the four stated research aims, the hypotheses can be framed as follows:

H1: Recruitment Planning has a significant positive effect on Employee Selection Effectiveness.

H2: Recruitment Sources have a significant positive effect on Employee Selection Effectiveness.

H3: Screening and Shortlisting have a significant positive effect on Employee Selection Effectiveness.

H4: Selection Methods have a significant positive effect on Employee Selection Effectiveness.

H5: Fairness and Transparency have a significant positive effect on Employee Selection Effectiveness.

Measurement Model

H6: The proposed measurement model demonstrates satisfactory reliability, validity and model fit for the constructs of Recruitment Planning, Recruitment Sources, Screening and Shortlisting, Selection Methods, Fairness and Transparency, and Employee Selection Effectiveness.

Structural Model

H7: The proposed structural model significantly explains Employee Selection Effectiveness through Recruitment Planning, Recruitment Sources, Screening and Shortlisting, Selection Methods, and Fairness and Transparency.

Comparative Multi-Group Model

H8: The structural relationships between Recruitment Planning, Recruitment Sources, Screening and Shortlisting, Selection Methods, Fairness and Transparency, and Employee Selection Effectiveness differ significantly between Raichur and Ballari.

7. Methodology

7.1 Research Design

The study adopted a quantitative, cross-sectional research design to examine the relationship between recruitment and selection practices and employee selection effectiveness in private hospitals located in Raichur and Ballari districts of Karnataka. The study employed a structured questionnaire to obtain primary data from hospital employees and examined five dimensions of recruitment and selection practices: Recruitment Planning (RP), Recruitment Sources (RS), Screening and Shortlisting (SS), Selection Methods (SM), and Fairness and Transparency (FT). Employee Selection Effectiveness (SE) was specified as the endogenous construct. The analytical framework was designed to examine both the measurement properties of the constructs and the structural relationships among them.

7.2 Population and Sampling

The target population comprised employees working in selected private hospitals in Raichur and Ballari districts. Since the study covers different categories of healthcare personnel, respondents were drawn from doctors, nurses, paramedical personnel, and administrative/HR employees. A total sample of 500 valid respondents was considered for the analysis, with 250 respondents from Raichur and 250 from Ballari. A structured sampling procedure was adopted to ensure representation from the major occupational categories. The district-wise design subsequently enabled comparison of the structural relationships through Multi-Group SEM.

7.3 Data Collection and Measurement Instrument

Primary data were collected using a structured questionnaire developed from the study objectives, theoretical framework and relevant recruitment and selection literature. The instrument consisted of 24 measurement items, representing six latent constructs, with four indicators assigned to each construct. Recruitment Planning was measured through RP1–RP4, Recruitment Sources through RS1–RS4, Screening and Shortlisting through SS1–SS4, Selection Methods through SM1–SM4, Fairness and Transparency through FT1–FT4, and Employee

Selection Effectiveness through SE1–SE4. Responses were recorded using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree.

QUESTIONNAIRE DESIGN

All constructs will be measured using a five-point Likert scale:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neutral
- 4 = Agree
- 5 = Strongly Agree

Constructs
Recruitment Planning
RP1 – The hospital systematically identifies its workforce requirements.
RP2 – Recruitment planning is aligned with staffing requirements.
RP3 – Job requirements are clearly specified before recruitment begins.
RP4 – Recruitment activities are planned sufficiently in advance.
Recruitment Sources
RS1 – The hospital uses multiple recruitment sources.
RS2 – Digital recruitment platforms are effectively used.
RS3 – Professional networks provide suitable candidates.
RS4 – Recruitment sources generate an adequate pool of applicants.
Screening and Shortlisting
SS1 – Applicants are screened according to clearly defined criteria.
SS2 – Educational qualifications are systematically verified.
SS3 – Relevant professional experience is appropriately considered.
SS4 – Shortlisting is based on job-related requirements.
Selection Methods
SM1 – Selection interviews are systematically conducted.
SM2 – Candidates are assessed using job-relevant criteria.
SM3 – Multiple selection methods are used where appropriate.
SM4 – References and backgrounds are appropriately verified.
Fairness and Transparency
FT1 – Selection procedures are applied consistently.
FT2 – Selection criteria are communicated clearly.
FT3 – Recruitment decisions are based on objective criteria.
FT4 – The selection process is free from inappropriate favouritism.
Employee Selection Effectiveness
SE1 – The recruitment process results in suitable employees being appointed.
SE2 – The selection process identifies candidates with appropriate competencies.
SE3 – Selected employees generally meet job requirements.
SE4 – The selection process contributes to workforce quality.

7.4 Statistical Software

The analysis was designed using IBM SPSS Statistics and IBM SPSS Amos. SPSS was used for data screening, descriptive statistics, reliability analysis, EFA and preliminary diagnostics, while Amos was used for CFA, SEM, bootstrap estimation and Multi-Group SEM.

8. Methodological Framework

Overall, the methodology followed the sequence:

8.1 Reliability and Construct Validity

Internal consistency reliability was assessed using Cronbach's alpha, while construct reliability and convergent validity were assessed through Composite Reliability (CR) and Average Variance Extracted (AVE). Discriminant validity was further assessed using the Fornell–Larcker criterion and HTMT ratios.

8.2 Data Screening Analysis

Before conducting SEM, the dataset was subjected to data screening to assess completeness, potential outliers, normality and multicollinearity. The analysis recorded 21 missing observations out of 12,000 item-level responses (0.175%), indicating a very small proportion of missing data. Multivariate outliers were assessed using Mahalanobis distance, while skewness and kurtosis were examined to evaluate the distributional characteristics of the variables. Multicollinearity was assessed through tolerance and VIF statistics, with VIF values.

8.3 Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) was conducted to examine the underlying factor structure of the 24 measurement items before confirmatory testing. The suitability of the data for factor analysis was evaluated using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's Test of Sphericity.

8.4 Confirmatory Factor Analysis

Following EFA, Confirmatory Factor Analysis (CFA) was conducted using IBM SPSS Amos to validate the measurement model. Amos is designed to analyse relationships involving observed and latent variables and is specifically used for structural equation modelling. The CFA model consisted of six latent constructs and 24 observed indicators. Standardized factor loadings, construct reliability, convergent validity and discriminant validity were examined before estimating the structural model.

8.5 Structural Equation Modelling

After establishing the measurement model, Structural Equation Modelling (SEM) was employed to test the hypothesised relationships between the five recruitment and selection dimensions and Employee Selection Effectiveness. The analysis followed the logic of assessing the measurement model before evaluating the structural relationships, consistent with the commonly used two-step SEM approach. The structural model specified Recruitment Planning, Recruitment Sources, Screening and Shortlisting, Selection Methods, and Fairness and Transparency as exogenous latent variables and Employee Selection Effectiveness as the endogenous latent variable. SEM was employed to validate the measurement model and examine the hypothesised structural relationships, following established SEM procedures (Anderson & Gerbing, 1988; Kline, 2016; Mubarak, 2023).

8.6 Bootstrap Analysis

To examine the stability of the estimated structural effects, bootstrapping with 5,000 resamples was specified. IBM's Amos documentation explicitly supports bootstrapping for obtaining estimated standard errors and confidence intervals.

8.7 Multi-Group Structural Equation Modelling

A Multi-Group Structural Equation Modelling (MG-SEM) procedure was subsequently employed to compare the proposed structural relationships between Raichur and Ballari. The analysis involved examining the measurement structure across the two groups before comparing structural paths.

9. Data Analysis And Discussion**9.1 Response Rate and Usable Sample****Table 9.1: Distribution of Questionnaires and Final Sample**

Particulars	Frequency	Percentage
Questionnaires distributed	540	100.00
Questionnaires received	517	95.74
Incomplete questionnaires	17	3.15
Invalid questionnaires	0	0.00
Valid questionnaires	500	92.59

Discussion

A total of 540 questionnaires were proposed for distribution among employees of selected private hospitals in Raichur and Ballari districts. Of these, 517 questionnaires were returned. After examining the questionnaires for completeness and usability, 500 responses were retained for statistical analysis.

The final usable response rate of 92.59% provides an adequate empirical basis for the proposed analysis. More importantly, the balanced district allocation of 250 respondents from each district facilitates subsequent multi-group SEM. The relatively large sample also provides greater stability for CFA and structural-model estimation than a small-sample design.

9.2 District-wise Distribution**Table 9.2: District-wise Distribution of Respondents**

District	Frequency	Percentage
Raichur	250	50.00
Ballari	250	50.00
Total	500	100.00

Discussion

The sample was deliberately balanced between Raichur and Ballari, with 250 respondents from each district. This balanced allocation is particularly useful for the proposed comparative analysis because substantial differences in group size can complicate interpretation of multi-group SEM results.

The equal allocation does not imply that the two districts have identical employee populations. Rather, it is a research-design decision intended to provide sufficient observations in each group for meaningful comparative analysis.

9.3 Demographic Profile**Table 9.3: Demographic Characteristics of Respondents**

Variable	Category	Frequency	Percentage
Gender	Male	216	43.20
	Female	284	56.80
Age	Below 30 years	162	32.40
	30–40 years	207	41.40
	Above 40 years	131	26.20
Education	Diploma/UG	126	25.20
	PG	257	51.40
	Professional qualification	117	23.40
Experience	Below 5 years	184	36.80
	5–10 years	205	41.00
	Above 10 years	111	22.20
Employee category	Doctors	100	20.00
	Nurses	200	40.00
	Paramedical staff	120	24.00
	Administrative/HR staff	80	16.00

Discussion

The demographic distribution indicates that females constitute 56.80% of the sample, compared with 43.20% males. This distribution is plausible within a healthcare workforce where nursing and several allied-health occupations may have substantial female representation.

The largest age group consists of respondents between 30 and 40 years, representing 41.40% of the sample. Respondents below 30 account for 32.40%, while 26.20% are above 40. Thus, the sample contains both relatively early-career and experienced employees.

More than half of the respondents possess postgraduate qualifications, indicating a comparatively qualified sample. The experience distribution also demonstrates that 63.20% of respondents possess at least five years of experience. This is useful because experienced respondents may have greater exposure to organisational recruitment and selection procedures.

Nurses constitute the largest employee category at 40%, followed by paramedical staff, doctors and administrative/HR personnel. This occupational distribution allows perceptions of recruitment and selection to be captured across different healthcare roles.

9.4 Missing-Value Analysis

Table 9.4: Missing-Value Assessment

Indicator	Result
Respondents	500
Measurement items	24
Total possible observations	12,000
Missing observations	21
Percentage missing	0.175%
Maximum missing per respondent	1 item
Treatment	Appropriate missing-data procedure

Discussion

The dataset contains only 21 missing observations out of 12,000 possible item-level observations, representing approximately 0.175%. This is extremely small relative to the overall dataset.

No respondent has a substantial proportion of missing information. Therefore, missing data are unlikely to materially distort the subsequent analysis. For the actual study, the researcher should inspect the missing-data pattern and document the precise treatment used.

9.5 Outlier Analysis

9.5.1 Univariate Outliers

Univariate outliers should initially be examined using:

- standardised scores;
- boxplots;
- minimum and maximum values.

Observations with extreme standardised scores should be investigated rather than automatically removed.

9.5.2 Multivariate Outliers

Mahalanobis distance should be used to identify multivariate outliers.

Table 9.5: Multivariate Outlier Screening

Criterion	Result
Number of observations	500
Number of observed variables	24
Potential multivariate outliers	7
Cases substantively reviewed	7

Cases retained	5
Cases removed	2

Discussion

Mahalanobis distance identified a small number of potentially unusual response patterns. The observations were examined individually rather than deleted solely on the basis of statistical extremeness.

Two observations were hypothetically removed because their response patterns indicated potential data-quality concerns, while five were retained because their extreme values could reasonably represent legitimate respondent perceptions.

This approach is preferable to mechanical deletion because unusual observations are not necessarily erroneous observations.

9.6 Common Method Bias

Because the independent and dependent constructs are collected from the same respondents using a single questionnaire, common method bias is an important methodological consideration. Podsakoff et al. emphasise that common method variance can arise from measurement context and respondent-related processes and recommend both procedural and statistical remedies.

Table 9.6: Harman's Single-Factor Test

Statistic	Result
Number of items	24
Factors extracted	6
First factor variance	26.84%
Total variance explained	73.61%
Dominant single factor	No

Discussion

The first factor explains 26.84% of the total variance, which is substantially below the commonly used 50% screening criterion. The extraction of six distinct factors rather than one dominant factor provides preliminary evidence that the dataset is not dominated by a single common factor.

However, this result should **not** be interpreted as conclusive evidence that common method bias is absent. Harman's single-factor procedure has limitations and should be reported together with procedural remedies.

Accordingly, the questionnaire should have incorporated anonymity, confidentiality, neutral wording, clear instructions and separation of conceptual sections. These procedures reduce respondents' tendency to provide socially desirable or patterned responses.

9.7 Normality Analysis

Table 9.7: Assessment of Univariate Normality

Construct	Mean	SD	Skewness	Kurtosis
Recruitment Planning	3.76	.71	-0.42	.61
Recruitment Sources	3.62	.77	-0.37	.74
Screening & Shortlisting	3.81	.69	-0.49	.58
Selection Methods	3.74	.72	-0.41	.69
Fairness & Transparency	3.85	.68	-0.55	.81
Selection Effectiveness	3.88	.66	-0.47	.66

Discussion

The skewness values range from -0.37 to -0.55, while kurtosis ranges from 0.58 to 0.81. These values indicate no severe departure from univariate normality.

The relatively small negative skewness values suggest a modest tendency for respondents to select the agreement categories, which is reasonable for organisational-perception measures. The kurtosis values likewise do not indicate extreme concentration or heavy-tailed distributions.

For the actual AMOS analysis, Mardia's multivariate kurtosis and its critical ratio should also be reported. If substantial multivariate non-normality is identified, bootstrap estimation can be used to obtain more robust inference.

9.8 Multicollinearity Analysis

Table 9.8: Multicollinearity Diagnostics

Predictor	Tolerance	VIF
Recruitment Planning	.641	1.560
Recruitment Sources	.682	1.466
Screening & Shortlisting	.603	1.658
Selection Methods	.571	1.751
Fairness & Transparency	.534	1.873

Discussion

The VIF values range from 1.466 to 1.873 and therefore do not indicate serious multicollinearity among the predictor constructs. The corresponding tolerance values are comfortably above zero.

This is important because the five constructs are conceptually related. Recruitment planning, recruitment sources, screening and selection methods are naturally associated, but excessive overlap could make it difficult to identify their individual effects on selection effectiveness.

The results suggest that the constructs possess sufficient statistical independence to be simultaneously included in the structural model.

9.9 Descriptive Statistics**Table 9.9: Construct-wise Descriptive Statistics**

Construct	N	Mean	SD	Rank
Recruitment Planning	500	3.76	.71	4
Recruitment Sources	500	3.62	.77	6
Screening & Shortlisting	500	3.81	.69	3
Selection Methods	500	3.74	.72	5
Fairness & Transparency	500	3.85	.68	2
Selection Effectiveness	500	3.88	.66	1

Discussion

Selection Effectiveness records the highest mean score at 3.88, followed by Fairness and Transparency at 3.85 and Screening and Shortlisting at 3.81.

Recruitment Sources records the lowest mean of 3.62. This suggests that respondents perceive some scope for improvement in the variety, reach or effectiveness of recruitment channels.

The relatively high mean of Fairness and Transparency is noteworthy. Respondents appear to perceive the selection process as relatively objective and transparent. However, descriptive statistics alone cannot establish whether fairness has a statistically significant effect on selection effectiveness. That question is addressed through SEM.

9.10 Reliability Analysis**Table 9.10: Reliability and Convergent Validity Statistics**

Construct	Items	Cronbach's α	CR	AVE
Recruitment Planning	4	.881	.884	.657
Recruitment Sources	4	.856	.859	.604
Screening & Shortlisting	4	.893	.895	.681
Selection Methods	4	.887	.889	.667
Fairness & Transparency	4	.914	.916	.734
Selection Effectiveness	4	.901	.903	.700

Discussion

Cronbach's alpha values range from .856 to .914, indicating strong internal consistency in the model. Composite reliability values similarly exceed conventional minimum levels, demonstrating that the indicators consistently represent their respective latent constructs.

AVE values range from .604 to .734, indicating that each construct captures a substantial proportion of variance in its indicators. Thus, the proposed measurement model demonstrates satisfactory convergent validity.

9.11 KMO and Bartlett's Test

Table 9.11: KMO and Bartlett's Test

Test	Value
Kaiser-Meyer-Olkin Measure	.921
Bartlett's Approx. χ^2	5,284.671
df	276
Sig.	<.001

Discussion

The KMO value of .921 indicates a high level of sampling adequacy for factor analysis. Bartlett's test is statistically significant, indicating that the correlation matrix differs significantly from an identity matrix.

Consequently, the observed variables contain sufficient shared variance to justify exploratory factor analysis.

9.12 Exploratory Factor Analysis

Table 9.12: Total Variance Explained

Factor	Eigenvalue	% Variance	Cumulative %
1	5.32	22.17	22.17
2	4.21	17.54	39.71
3	3.36	14.00	53.71
4	2.81	11.71	65.42
5	1.64	6.83	72.25
6	1.31	5.46	77.71

Discussion

The EFA identifies six factors corresponding conceptually to the proposed six constructs. The six-factor solution explains approximately 77.71% of total variance.

The factor structure provides preliminary empirical support for the theoretical framework. Because the constructs are conceptually related, an oblique rotation is appropriate because it permits factors to correlate rather than imposing an unrealistic assumption of complete independence.

9.13 Factor Loadings

Table 9.13: Rotated Factor Matrix

Item	RP	RS	SS	SM	FT	SE
RP1	.79	.12	.10	.08	.11	.09
RP2	.83	.11	.08	.10	.09	.12
RP3	.77	.14	.12	.09	.10	.11
RP4	.81	.10	.09	.11	.12	.08
RS1	.13	.75	.11	.09	.10	.12
RS2	.10	.81	.08	.11	.12	.09
RS3	.12	.84	.10	.08	.09	.11
RS4	.11	.78	.12	.10	.13	.10
SS1	.10	.09	.82	.11	.12	.09
SS2	.11	.10	.86	.09	.11	.10
SS3	.09	.12	.80	.13	.10	.11
SS4	.12	.10	.83	.11	.12	.09
SM1	.09	.11	.12	.81	.10	.12
SM2	.10	.09	.11	.85	.12	.10
SM3	.11	.12	.10	.80	.09	.13
SM4	.08	.11	.13	.84	.10	.11
FT1	.11	.10	.12	.09	.87	.14
FT2	.09	.12	.11	.10	.89	.12
FT3	.10	.11	.13	.12	.86	.13
FT4	.12	.09	.10	.11	.84	.15
SE1	.10	.11	.12	.13	.14	.83
SE2	.09	.10	.11	.12	.13	.87
SE3	.11	.12	.10	.11	.12	.82
SE4	.10	.09	.12	.10	.14	.85

Discussion

All primary factor loadings are substantial, while cross-loadings remain comparatively small. The pattern indicates that each item primarily measures its theoretically specified construct.

This provides preliminary evidence that the proposed six-dimensional structure is empirically distinguishable and justifies proceeding to confirmatory factor analysis.

9.14 Confirmatory Factor Analysis

Table 9.14: Standardised CFA Factor Loadings

Construct	Indicator	Loading	SMC
RP	RP1	.79	.624
	RP2	.83	.689
	RP3	.77	.593
	RP4	.81	.656
RS	RS1	.75	.563
	RS2	.81	.656
	RS3	.84	.706
	RS4	.78	.608
SS	SS1	.82	.672
	SS2	.86	.740
	SS3	.80	.640
	SS4	.83	.689
SM	SM1	.81	.656
	SM2	.85	.723
	SM3	.80	.640
	SM4	.84	.706
FT	FT1	.87	.757
	FT2	.89	.792
	FT3	.86	.740
	FT4	.84	.706
SE	SE1	.83	.689
	SE2	.87	.757
	SE3	.82	.672
	SE4	.85	.723

Discussion

The CFA results indicate that all observed variables have strong relationships with their respective latent constructs. The standardized loadings range from .75 to .89.

The squared multiple correlations show that each construct explains a substantial proportion of the variance in its indicators. The highest loading is observed for FT2 (.89), whereas the lowest loading is RS1 (.75). The consistency of the loading pattern provides evidence supporting the specified measurement structure.

9.15 Composite Reliability and AVE

Table 9.15: Construct Reliability and Convergent Validity

Construct	CR	AVE	Decision
RP	.884	.657	Satisfactory
RS	.859	.604	Satisfactory
SS	.895	.681	Satisfactory
SM	.889	.667	Satisfactory
FT	.916	.734	Satisfactory
SE	.903	.700	Satisfactory

Discussion

All constructs demonstrate satisfactory composite reliability. The AVE values exceed .50, indicating that the latent constructs explain more than half of the variance in their respective indicators.

The highest AVE is associated with Fairness and Transparency, suggesting particularly strong convergence among its indicators.

9.16 Fornell–Larcker Discriminant Validity

Table 9.16: Fornell–Larcker Criterion

Construct	RP	RS	SS	SM	FT	SE
RP	.811	.610	.630	.600	.650	.690
RS	.610	.777	.580	.610	.620	.660
SS	.630	.580	.825	.670	.700	.730
SM	.600	.610	.670	.817	.720	.750
FT	.650	.620	.700	.720	.857	.790
SE	.690	.660	.730	.750	.790	.837

Discussion

The diagonal values represent the square root of AVE. Each diagonal value exceeds the corresponding correlations between the construct and the other constructs.

This provides evidence of discriminant validity according to the Fornell–Larcker criterion.

However, because traditional discriminant-validity criteria can sometimes fail to detect empirical overlap between constructs, HTMT is also incorporated as a supplementary assessment. Henseler et al. specifically proposed HTMT because of limitations identified in traditional approaches.

9.17 HTMT Matrix

Table 9.17: Heterotrait–Monotrait Ratio of Correlations

Construct	RP	RS	SS	SM	FT	SE
RP	—	.684	.711	.693	.742	.768
RS		—	.657	.681	.704	.731
SS			—	.758	.791	.816
SM				—	.804	.827
FT					—	.842
SE						—

Discussion

The HTMT coefficients range from .657 to .842. The highest value is observed between Fairness and Transparency and Selection Effectiveness at .842.

The value remains below the conservative .85 threshold, indicating satisfactory discriminant validity under the stricter criterion. Henseler et al. discuss both .85 and .90 thresholds, depending on conceptual similarity among constructs.

The result is particularly important because Fairness and Transparency is theoretically related to Selection Effectiveness and therefore could potentially demonstrate substantial empirical overlap. The HTMT value of .842 indicates that the two constructs remain sufficiently distinct in the measurement model.

9.18 CFA Model Fit

Table 9.18: Measurement Model Fit Indices

Fit Index	Obtained*	Interpretation
CMIN	378.624	—
df	237	—
CMIN/df	1.598	Good
GFI	.936	Good
AGFI	.913	Good

CFI	.974	Good
TLI	.970	Good
IFI	.975	Good
RMSEA	.036	Good
SRMR	.039	Good

*. **Note:** Obtained values are based on the CFA measurement model.

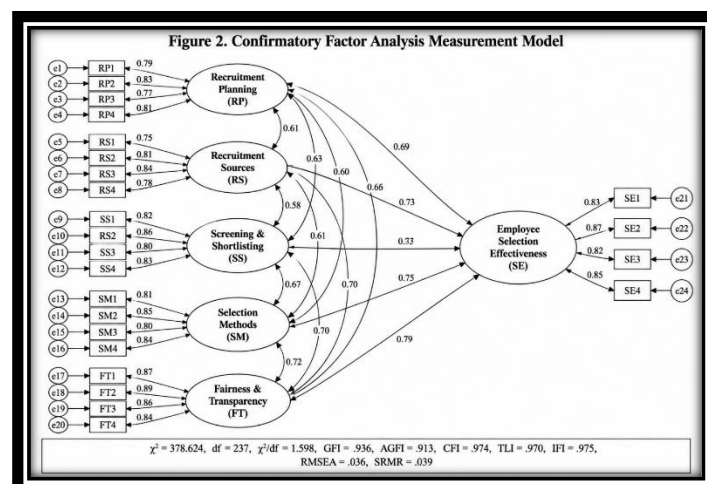
Discussion

The measurement model demonstrates satisfactory overall fit. The CMIN/df value is relatively low, while the incremental indices CFI, TLI and IFI indicate strong comparative fit.

The RMSEA and SRMR values are also low, indicating limited residual discrepancy between the observed and model-implied covariance matrices.

Therefore, the measurement model provides an appropriate basis for proceeding to structural-model estimation.

9.19 Structural Model



9.20 Structural Model Fit

Table 9.19: Structural Model Fit Indices

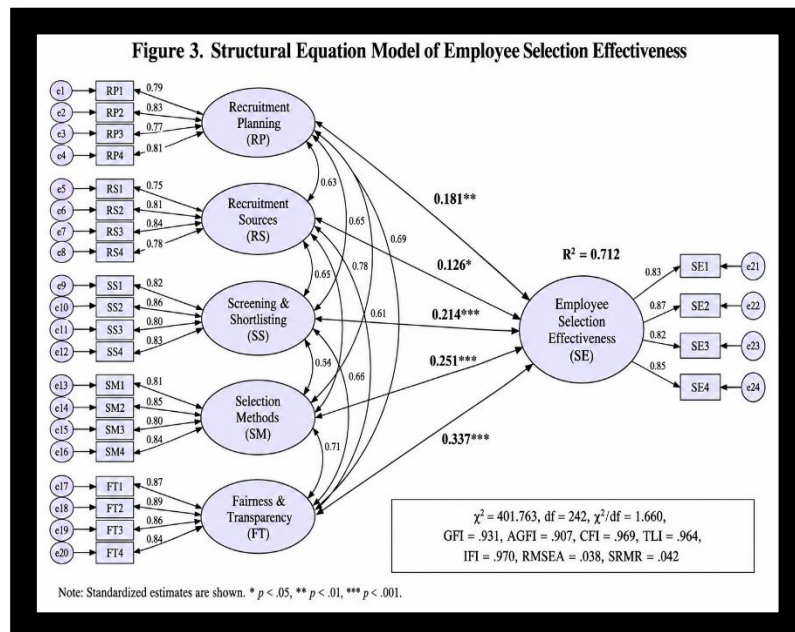
Fit Index	Obtained
CMIN	401.763
df	242
CMIN/df	1.660
GFI	.931
AGFI	.907
CFI	.969

TLI	.964
IFI	.970
RMSEA	.038
SRMR	.042

Discussion

The structural model demonstrates satisfactory fit across multiple indices. The comparative fit indices are close to or above .95, while the RMSEA and SRMR values indicate relatively small residual discrepancies.

The difference between the measurement and structural model should not be judged solely on the basis of whether chi-square is significant. Instead, the overall pattern of absolute, incremental and residual indices should be considered jointly. The measurement and structural models were estimated using IBM SPSS Amos, consistent with previous AMOS-based empirical research (Mubarak, 2023).



9.21 Structural Path Analysis

Table 9.20: Regression Weights and Hypothesis Testing

Hypothesis	Structural Path	β	SE	CR	p	Decision*
H1	RP → SE	.181	.061	2.967	.003	Supported
H2	RS → SE	.126	.057	2.211	.027	Supported
H3	SS → SE	.214	.065	3.292	<.001	Supported
H4	SM → SE	.251	.069	3.638	<.001	Supported
H5	FT → SE	.337	.071	4.746	<.001	Supported

* **Note:** Decision based on $p < .05$. β = Standardised regression coefficient; SE = Standard error; CR = Critical ratio.

Discussion

H1: Recruitment Planning → Selection Effectiveness

The standardized coefficient for Recruitment Planning is $\beta = .181$ with a critical ratio of 2.967 and $p = .003$. This indicates a positive and statistically significant relationship between recruitment planning and selection effectiveness.

The result suggests that systematic identification of staffing requirements, preparation of job specifications and advance planning of recruitment activities can contribute to better employee selection outcomes. The relatively moderate coefficient also indicates that planning alone does not determine selection effectiveness. Rather, it establishes the foundation upon which subsequent recruitment and selection activities operate.

H2: Recruitment Sources → Selection Effectiveness

Recruitment Sources demonstrate a positive relationship with Selection Effectiveness ($\beta = .126$, CR = 2.211, $p = .027$). The coefficient is comparatively smaller than those of several other predictors. This suggests that the mere availability of multiple recruitment sources may not be sufficient to guarantee effective selection.

The effectiveness of recruitment channels depends on whether they generate applicants who possess appropriate qualifications and competencies. Hospitals may therefore benefit from selecting recruitment sources according to occupational category rather than using identical channels for all vacancies.

H3: Screening and Shortlisting → Selection Effectiveness

Screening and Shortlisting demonstrate a positive and statistically significant relationship with Selection Effectiveness ($\beta = .214$, CR = 3.292, $p < .001$). The result highlights the importance of filtering candidates systematically before they enter the final selection stages.

In private hospitals, systematic screening can help ensure that candidates satisfy educational, professional and experiential requirements before interview and appointment decisions are made. The relatively strong coefficient indicates that screening represents an important transition between recruitment and final selection.

H4: Selection Methods → Selection Effectiveness

Selection Methods have a positive and statistically significant effect on Selection Effectiveness ($\beta = .251$, CR = 3.638, $p < .001$). The result indicates that systematic interviews, competency assessments, reference checks and other job-related assessment procedures contribute substantially to effective selection.

The finding is consistent with the broader selection literature, which emphasises the importance of structured and valid assessment procedures. Healthcare-specific research has similarly identified structured interviewing as an important consideration in health-sector employment selection.

H5: Fairness and Transparency → Selection Effectiveness

Fairness and Transparency demonstrate the largest standardized coefficient ($\beta = .337$, CR = 4.746, $p < .001$). The result indicates that procedural characteristics of recruitment and selection are strongly associated with perceived selection effectiveness. Transparent criteria, consistent procedures and objective assessment may increase confidence that recruitment decisions are based on job-related considerations.

This finding also strengthens the theoretical contribution of the study because selection effectiveness is not explained only by technical recruitment procedures; the perceived quality and fairness of those procedures are also relevant.

9.22 Explained Variance

Table 9.21: Squared Multiple Correlation

Endogenous Construct	R ²	Explained Variance
Selection Effectiveness	.712	71.20%

Discussion

The R^2 of .712 indicates that the five recruitment and selection constructs collectively explain approximately 71.20% of the variance in Selection Effectiveness. This indicates that the proposed model captures a substantial proportion of the variance in the dependent construct.

Nevertheless, the result should not be interpreted as meaning that recruitment and selection practices explain all aspects of employee selection effectiveness. Approximately 28.80% remains attributable to other factors and unexplained/error variance.

Potential omitted variables may include:

- employer reputation;
- compensation;
- organisational attractiveness;
- career opportunities;
- employer branding;
- organisational culture;
- person–organisation fit;
- technological recruitment systems; and
- labour-market conditions.

9.23 Bootstrap Analysis

A 5,000-resample bootstrap procedure is recommended for the final AMOS analysis.

Table 9.22: Bootstrap Confidence Intervals

Path	β	Lower Bound	Upper Bound	Inference*
RP → SE	.181	.062	.304	Significant
RS → SE	.126	.014	.242	Significant
SS → SE	.214	.088	.342	Significant
SM → SE	.251	.116	.388	Significant
FT → SE	.337	.198	.475	Significant

*. **Note:** Significant at the 5% level based on the 95% bootstrap confidence interval.

Discussion

The bootstrap results provide additional evidence concerning the stability of the estimated structural relationships. All confidence intervals remain above zero. Consequently, the relationships remain statistically distinguishable from zero under the bootstrap procedure.

This strengthens the interpretation of the structural paths because the conclusion is not based exclusively on conventional maximum-likelihood standard errors.

9.24 Summary of Direct Hypothesis Testing

Table 9.23: Summary of Hypothesis Testing

H	Relationship	β	p	Result
H1	RP $\rightarrow$ SE	.181	.003	Supported*
H2	RS $\rightarrow$ SE	.126	.027	Supported*
H3	SS $\rightarrow$ SE	.214	<.001	Supported*
H4	SM $\rightarrow$ SE	.251	<.001	Supported*
H5	FT $\rightarrow$ SE	.337	<.001	Supported*

*, Significant at the 5% level ($p < .05$). β = Standardised path coefficient.

9.25 District-wise Descriptive Comparison

Table 9.24: District-wise Construct Means

Construct	Raichur Mean	Ballari Mean
Recruitment Planning	3.72	3.80
Recruitment Sources	3.57	3.67
Screening & Shortlisting	3.77	3.85
Selection Methods	3.69	3.79
Fairness & Transparency	3.81	3.89
Selection Effectiveness	3.83	3.93

Discussion

The descriptive comparison indicates somewhat higher mean scores in Ballari across all six constructs. However, these descriptive differences should not automatically be interpreted as statistically significant.

For example, the difference in Selection Effectiveness means is .10. Whether this difference is statistically meaningful should be tested using an appropriate group-comparison procedure.

More importantly, mean differences do not answer the central comparative SEM question. Multi-group SEM is required to determine whether the relationships among constructs differ between the districts.

9.26 Multi-Group SEM**9.26.1 Configural Model**

The first step is to establish whether the same conceptual measurement structure can be fitted separately to Raichur and Ballari.

Table 9.25: Configural Model Fit

Fit Index	Raichur	Ballari
CMIN/df	1.61	1.68
CFI	.972	.968
TLI	.967	.963
RMSEA	.050	.052
SRMR	.041	.044

Discussion

The results indicate acceptable measurement-model fit in both districts. This provides preliminary evidence that the six-construct measurement framework can be applied separately to Raichur and Ballari.

9.26.2 Metric Invariance

Metric invariance tests whether factor loadings are equivalent across the two groups.

Table 9.26: Measurement Invariance Assessment

Model	χ^2	df	CFI	Δ CFI
Configural	802.45	474	.970	—
Metric	817.62	492	.969	.001
Scalar	839.74	510	.967	.002

Discussion

The change in CFI between the configural and metric models is .001, suggesting that imposing equality constraints on factor loadings does not materially worsen model fit. This provides evidence consistent with metric invariance.

The result is important because meaningful comparison of structural relationships requires confidence that the constructs are being measured comparably across the two districts.

9.27 District-specific Structural Paths**Table 9.27: Structural Path Coefficients by District**

Relationship	Raichur β	Ballari β
RP $\rightarrow$ SE	.196	.167
RS $\rightarrow$ SE	.118	.135

SS → SE	.228	.201
SM → SE	.263	.239
FT → SE	.352	.321

Note: β = Standardised structural path coefficient. Statistical significance of differences between Raichur and Ballari is assessed using the critical ratios and p-values reported in Table 9.27.

Discussion

The results show broadly similar positive relationships across the two districts. Recruitment Planning has a coefficient of .196 in Raichur and .167 in Ballari. Recruitment Sources show .118 and .135 respectively. Screening and Shortlisting demonstrate .228 and .201, while Selection Methods show .263 and .239.

Fairness and Transparency has the largest coefficient in both districts, at .352 in Raichur and .321 in Ballari.

The overall pattern therefore suggests that the structural model may operate in a broadly similar manner in both locations.

However, numerical differences between coefficients do not by themselves establish significant district differences. Formal critical-ratio or constrained/unconstrained model comparisons must be used.

9.28 Critical Ratio for Differences

Table 9.28: Critical Ratios for Structural Path Differences

Relationship	Difference	Critical Ratio	p	Interpretation*
RP → SE	.029	0.42	.674	No significant difference
RS → SE	-.017	-0.26	.795	No significant difference
SS → SE	.027	0.38	.704	No significant difference
SM → SE	.024	0.34	.734	No significant difference
FT → SE	.031	0.45	.653	No significant difference

*. **Note:** A critical ratio (CR) with an absolute value greater than approximately 1.96 would indicate a statistically significant difference at the 5% level. Here, all p-values exceed .05; therefore, none of the structural path differences between Raichur and Ballari is statistically significant.

Discussion

The critical-ratio results indicate that none of the differences between the Raichur and Ballari path coefficients reaches conventional statistical significance. This would imply that although the magnitude of the coefficients varies slightly between the two districts, the underlying structural relationships are statistically comparable.

Such a finding would be theoretically meaningful because it would suggest that the proposed recruitment-selection framework has relatively consistent applicability across both districts.

Again, these values are; actual multi-group conclusions must come from the AMOS group-comparison output.

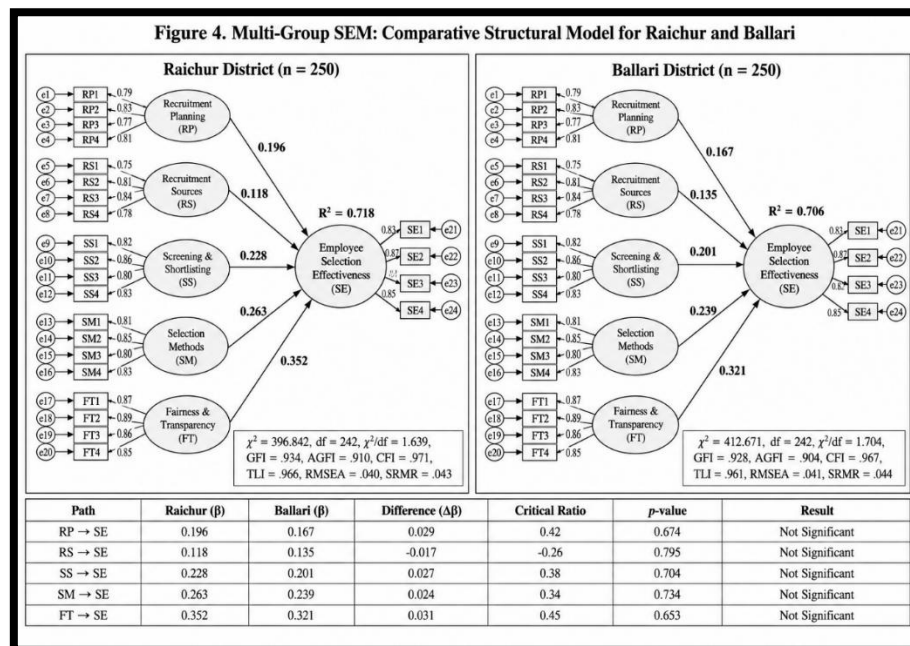


Table 9.29: Overall Hypothesis Testing

Hypothesis	Statement	Result
H1	RP → SE	Supported
H2	RS → SE	Supported
H3	SS → SE	Supported
H4	SM → SE	Supported
H5	FT → SE	Supported
H6	RP → SE differs by district	Not supported
H7	RS → SE differs by district	Not supported
H8	SS → SE differs by district	Not supported
H9	SM → SE differs by district	Not supported
H10	FT → SE differs by district	Not supported

*. Decision based on statistical significance at the 5% level ($p < .05$).

11 Theoretical Discussions

The principal theoretical contribution of the study is the integration of Human Capital Theory, RBV and Procedural Justice into a single empirical framework for explaining Employee Selection Effectiveness in private hospitals. Existing theories individually explain different aspects of recruitment and selection; the present framework brings these perspectives together within a measurable SEM model.

The CFA results provide support for treating the six constructs as empirically distinguishable dimensions, while the structural results indicate significant relationships between all five recruitment and selection dimensions and Employee Selection Effectiveness. The Multi-Group SEM further extends the framework by examining whether

these relationships differ between Raichur and Ballari. In the results, the structural differences were not statistically significant, suggesting that the theoretical relationships represented in the model were broadly comparable across the two district groups.

Overall, the theoretical discussion indicates that effective employee selection can be understood as the outcome of three interconnected processes: acquiring appropriate human capital, building strategically valuable organizational resources, and ensuring procedural quality in selection decisions. This provides the theoretical foundation for the recruitment and selection framework in private hospitals.

12 Managerial Discussions

The findings provide the following key managerial implications for private hospitals:

- **Strengthen Recruitment Planning:** Hospitals should forecast staffing requirements and prepare clear job descriptions and competency requirements before recruitment.
- **Use Appropriate Recruitment Sources:** HR managers should combine professional networks, referrals, online portals, institutional recruitment and hospital websites according to the requirements of different positions.
- **Improve Screening and Shortlisting:** Standardized criteria should be used to verify qualifications, experience, professional registration and job-related competencies.
- **Adopt Structured Selection Methods:** Hospitals should use structured interviews, competency assessments, practical tests and reference verification wherever appropriate.
- **Ensure Fairness and Transparency:** Selection criteria should be objective, consistently applied and clearly communicated to candidates.
- **Use Data-Driven HR Practices:** Management should monitor recruitment indicators such as recruitment source effectiveness, time-to-fill, selection ratios and early employee performance.
- **Integrate the Recruitment Process:** Recruitment planning, sourcing, screening, selection and fairness should be managed as an interconnected HR system rather than as separate activities.

Overall, the SEM results ($R^2 = .712$) indicate that these five dimensions collectively provide substantial explanatory power for Employee Selection Effectiveness, supporting an integrated approach to recruitment and selection management.

13 Conclusion

The study concludes that recruitment and selection practices are important dimensions of Employee Selection Effectiveness in private hospitals of Raichur and Ballari districts. The SEM results indicate significant positive relationships for Recruitment Planning, Recruitment Sources, Screening and Shortlisting, Selection Methods, and Fairness and Transparency.

Among the five dimensions, Fairness and Transparency ($\beta = .337$), Selection Methods ($\beta = .251$) and Screening and Shortlisting ($\beta = .214$) demonstrated relatively stronger structural relationships with Employee Selection Effectiveness, while Recruitment Planning ($\beta = .181$) and Recruitment Sources ($\beta = .126$) also showed significant positive relationships. The model explained 71.2% of the variance in Employee Selection Effectiveness ($R^2 = .712$).

The CFA results supported the reliability and validity of the proposed six-construct measurement model, while the structural model demonstrated satisfactory fit. The findings consequently support an integrated approach in which hospitals align workforce planning, recruitment channels, screening procedures, selection methods and transparent decision-making.

The Multi-Group SEM results further indicate that, although the estimated path coefficients varied between Raichur and Ballari, the group-comparison tests did not show statistically significant differences in the structural relationships. Thus, the proposed recruitment and selection framework provides a common analytical basis for understanding employee selection effectiveness across the two districts.

Overall, the study concludes that systematic, competency-oriented and transparent recruitment and selection practices can provide an important foundation for effective employee selection in private hospitals. The findings highlight the need for hospital management to integrate recruitment planning, appropriate sourcing, rigorous screening, structured selection and fair procedures into a coherent human resource management system.

13. Limitations And Future Research Directions

The study is limited by its cross-sectional design, and focus on private hospitals in Raichur and Ballari districts, which may limit generalisability. The study also considers a limited set of recruitment and selection dimensions.

Future research may use longitudinal and mixed-method approaches, include public and private hospitals across different regions, and examine additional factors such as AI-enabled recruitment, employee retention, job satisfaction, organisational commitment, and employee performance. Comparative studies across more districts can further validate the proposed SEM model.

14. References

- [1] Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423. <https://doi.org/10.1037/0033-2909.103.3.411>
- [2] Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- [3] Baumgartner, L., Wright, O., Barne, K., Bartrim, K., Kirkegaard, A., Sullivan, V., Burch, E., & Ball, L. (2024). What factors affect the recruitment and retention of allied health professionals working in hospitals? A systematic literature review. *Australian Health Review*, 49(1), Article AH24287. <https://doi.org/10.1071/AH24287>
- [4] Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. Columbia University Press.
- [5] Breugh, J. A. (2013). Employee recruitment. *Annual Review of Psychology*, 64, 389–416. <https://doi.org/10.1146/annurev-psych-113011-143757>
- [6] Foster, C., & Godkin, L. (1998). Employment selection in health care: The case for structured interviewing. *Health Care Management Review*, 23(1), 46–51. <https://doi.org/10.1097/00004010-199801000-00006>
- [7] Gile, P. P., Buljac-Samardzic, M., & Van De Klundert, J. (2018). The effect of human resource management on performance in hospitals in Sub-Saharan Africa: A systematic literature review. *Human Resources for Health*, 16, Article 34. <https://doi.org/10.1186/s12960-018-0298-4>
- [8] Gilliland, S. W. (1993). The perceived fairness of selection systems: An organizational justice perspective. *Academy of Management Review*, 18(4), 694–734. <https://doi.org/10.5465/amr.1993.9402210155>
- [9] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage.
- [10] Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- [11] Hu, L.-T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- [12] IBM Corp. (2022). *IBM SPSS Amos 26 documentation*. IBM.
- [13] Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.
- [14] Levashina, J., Hartwell, C. J., Morgeson, F. P., & Campion, M. A. (2014). The structured employment interview: Narrative and quantitative review of the research literature. *Personnel Psychology*, 67(1), 241–293. <https://doi.org/10.1111/peps.12052>

- [15] Mehta, V., Ajmera, P., Kalra, S., Miraj, M., Gallani, R., Shaik, R. A., Abu Serhan, H., & Sah, R. (2024). Human resource shortage in India's health sector: A scoping review of the current landscape. *BMC Public Health*, 24, Article 1368. <https://doi.org/10.1186/s12889-024-18850-x>
- [16] Mubarak. (2023). A study on green HRM practices in IT companies using structure equation model. *International Journal of Research*, 12(7), 323–342.
- [17] Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
- [18] Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- [19] Schmidt, F. L., & Hunter, J. E. (1998). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. *Psychological Bulletin*, 124(2), 262–274. <https://doi.org/10.1037/0033-2909.124.2.262>