

## **Conclusive empirical study on factors influencing employee engagement: Using Structural Equation Modelling (SEM)**

**Rathinavel Rajan S,**

Research Scholar, College of Management, SRM Institute of Science and Technology,  
Kattankulathur

**Dr. N. Santhosh Kumar,**

Associate Professor, College of Management, SRM Institute of Science and Technology ,  
Kattankulathur

### **Abstract:**

Recent years Employee Engagement has been the focal point for human resource departments practices and many of the researchers were affirmed that employee engagement could be the vital driving factor to make the successful business operations. Hence, the purpose of this study is to investigate the concept of employee engagement, focusing on the determinants, key determinants, and impacts of employee engagement, as well as to find gaps in past engagement studies. Furthermore, the study aspires to lay a conceptual foundation on which future research evidence can be developed.

The study focused to measure and analyse the influence of organizational related factor , Personal factor, and job-related factors toward employee engagement. A total of 542 participants were polled, and the data analysed using SEM (Structural Equation Modelling Technique).

The outcome of this study stated that the personal factors had major impact on the employee engagement , and ironically the workplace environment, as well as team and co-worker relationships, had a significant impact. Employee involvement influenced employee performance significantly by Markus, H. and Nurius, P. (1986).

This study suggests and promotes that the strengthening the inline alignment of Organizational factors and job-related factors to boost the self-satisfaction of disengaged employees, while forming of this bell shape alignment with personal factors would help the longer stay of employees , this will lead to the attain the assigned goals as referred Helen Murlis and Peggy Schubert (2001).

### **Introduction**

Employee engagement has become a predominant base concept of HR practices and priority in the today business, and it is entrenched conception which describes about how Employees who feel valued at work perform better, stay longer, and motivate others to do the same. Employee engagement affects a company's profitability, revenue, customer experience, employee turnover, and other issues. Employee productivity is a vital part of a company's success (Adeinat&Kassim, 2019). As a result, understanding the fundamental elements that drive productivity is critical for organisational sustainability (Jalal, 2016). Management must create innovative ways to engage and empower employees in a dynamic workforce in order to make sure productive personnel (Kim & Gatling, 2018).

After reviewing the existing literature on employee engagement and organisational effectiveness, the following research gap can be identified: It is very unavoidable to study the employee engagement practices in Information Technology (IT) sector to improve the standards of engaged employees and to deliver them desired quality designed by the top management. Any dissatisfaction among the employees will surely have an adverse direct impact in the development of organization. Aggarwal et.al

(2007) stated that Top engagement is driven by the Heads of the HR department, managers, and the policies of the management. When organization invests more in engagement practices, employees will be converted into a potential resource of the organization with the help of iconic employee engagement practices. Most research studies conducted by individual scholars and research institutions do not use a cross-sectional or random study design with quantitative research methodology. To address this research gap, the current study goes deeper, attempting to investigate the effects of employee engagement on organisational effectiveness at Information Technology (IT) industry.

The focus of this study is on the importance of engaged employees and how their presence might boost productivity and move forward towards the progress and the organization's overall success and job efficiency by Truss et. al (2006). The obstacles that HR managers have in enhancing employee engagement for the long-term survival of an organisation and continuous progress toward management's stated goals were also explored.

### **Study Objectives**

The study objectives are follows as mentioned bullet in :

1. To determine the elements that influence employee engagement in the Information Technology (IT) industry, with a focus on middle and junior management workers.
2. To find which of the identified Drivers has a greater impact on the Engagement of each of the two groups of the Information Technology (IT) Industry, Junior and Middle, as distinct to others.
3. To construct and validate a conceptual model of employee engagement in the Information Technology (IT) industry, with a focus on middle and junior management workers.

### **Literature Review**

**Asikhia, &Omojola (2021).** The primary finding, according to the researcher, is that management planning has a direct impact on staff engagement. The study focused on small and medium-sized businesses and was based on critical planning theory. Managers should ensure that management planning is done efficiently and extensively to increase employee engagement and, ultimately, organisational performance, according to the report. While it is impractical to involve all employees at all levels of planning, it is recommended that they be involved at various levels of management planning as needed so that they can contribute to plans that will define the future of their companies and their respective working conditions. Employee engagement is increased because of this involvement, which improves employee productivity and organisational performance.

In recent years, research has begun to delve further into the elements and drivers of employee engagement. The following are some of the more extrusive aspects and drivers that have been identified in most studies:

#### **Competent, Capable, Effective and Reliable Leadership:**

Management and the corporation are the immediate reporting heads for the majority of the workforce. Wellins et.al. (2010) expressed that Employee retention and

engagement are heavily influenced by trustworthy leaders. Individual performance is positively impacted by capable and effective leaders. Credible leaders will demonstrate their appreciation for employees, as well as the upper tiers of management who promote employee involvement.

Douglas J Mathews (2010) showed a statistically significant similarity between placing greater emphasis of governance and strong affirmation of employee engagement in a study that conducted a survey nearly half a million staff members in 15 countries on a wide variety of matters related to organisational efficacy, including leadership and engagement. Confined leader practises and behaviour patterns that appear to influence employee engagement better.

The four practises and behaviours that have the strongest relationships with employee engagement, as measured by credible leadership practises and behaviours, are:

- Senior executives are highly valued personnel.
- Senior leaders have the potential to increase productivity, effectiveness, and the success of an organisation.
- The organization's plan is effectively implemented by senior leaders.
- Senior executives convey the organization's strategy and specific goals to employees effectively. Author Daniel Pink writes in his new book *Drive: The Unexpected Truth About What Factors that motivate Us* that "employee empowerment" and "coordination and control" are not suitable cubicle partners. As he puts it, "There is still too much conformity and far too little involvement in our organisation. The former may get you throughout the day, whereas the latter will keep you awake at night", Susan, A. (2013).

### **Role Clarity**

Each employee requires a well-defined job description as well as a clear set of performance goals. Even more crucial is their concern that their targeted goals are exactly aligned with the organization's objectives. To do this, managers must assist all employees in seeing the big picture and determining their roles within it.

### **Progress, Breakthrough Growth and Career Development**

Employee engagement appears to be influenced by prospects, expectations, and opportunity for breakthrough, growth, and development. According to DDI's 2004 Selection Forecast research, most people quit their positions in search of better breakthroughs, professional progression, and development opportunities, which are frequently offered by other businesses. According to research, investments in development programmes are strongly linked to a company's financial success.

### **Support, Reinforcement and Recognition**

Offering Employees Support, Reinforcement, and Recognition has taken a longer time to develop a Committed Work Environment. According with Walker Research study Midway out the door, paying attention and showing interest in employees has become one of the most important aspects in fostering employee loyalty.

## **Employee Empowerment**

Employee empowerment is critical for innovative behaviour since it encourages initiative and results in more inventive and creative work processes. This is the process of allowing or authorising a person to conceive, conduct, act, and control work and decision-making in their own way. Leaders play a critical role in instilling a feeling of power among their employees. When things get tough, empowered leaders trust their staff and allow them to make judgments without having to manage or controlling over doing duties.

## **Building Relationship with Co-workers**

Employees, overall, seek to create relationships at work. Work engagement and performance will improve because of personal connections with senior leaders, managers, co-workers, and end customers. The organization reaps the benefits listed below when employees establish excellent relationships with their bosses and co-workers, Haski-Leventhal, D. (2013).

- Employees are more content.
- Managers have a lower level of stress.
- Employees are better at resolving problems.
- The needs of the employees are satisfied.

## **Regular and Effective Feedback**

Feedback is a tool for understanding an organization's needs, demands, productivity, and performance, among other things. Companies emerge as a result of continuous feedback because they are well prepared for essential modifications based on employee feedback described by Shaw, K. (2005). Feedback is critical for giving workers a feeling of in which they are moving/going in relation to the organization's defined goals. The best resource in the boss's arsenal for understanding strategy and enhancing execution is probably feedback.

## **Development Opportunities**

Employees who have a "career development strategy and are happy with accessibility to development opportunities. usually have high engagement levels," according to Robinson et al. (2007). Furthermore, according to Roffey Park Institute study, development opportunities, together with effective management and leadership, are one of the primary accelerators of engagement. Managers have a crucial role in fostering a common vision and values, as well as positive collaboration and acknowledgment (Sinclair et al., 2008).

## **Salary, Reward and Working Hours**

Melcrum (2005) also emphasises the role of pay, benefits, and public acknowledgement in motivating employees. The most important request was for a pay hike, including bonuses or incentives, or a prize, followed by company-sponsored festivities, appreciation, encouragement, flexible working hours, and assurances concerning job security.

Lockwood (2007) argues that work-life harmony is an essential piece component for employee satisfaction, and this influences employee engagement, in line with CHA's findings on the value of flexible working. This is especially crucial given because various generations have diverse expectation of the profession, with accessibility to training and technical career prospects, work/life balance, and decision-making authority all becoming more significant.

### **Linking Performance to Business Outcomes**

The top 25 factors of employee engagement identified in global research of 50,000 employees globally by the Corporate Leadership Council (2004) emphasise the importance of employees' connection to the firm. The relationship between both the employee's job, organisational strategy, and how vital the person believes their work is to the organization's performance was the most critical key lever , Slack, R.E. et al. (2015).

### **Purpose of the study**

As per Bernthal, P.R. and Erker, S. (2004) view that the goal of this study is to investigate the factors of employee in a multigenerational and diverse workforce. This entails comprehending the nature and requirements of people of various ages, nationalities, educational backgrounds, and genders. The study's findings will stimulate employee participation in organisational structure, allowing for more effective administration of a workforce that is becoming increasingly multi-generational and varied.

### **Research Methodology**

#### **Research Type**

This research is classified as conclusive research. A definitive study is designed to give data that may be used to reach conclusions or make decisions, as well as to assist decision-makers in choosing a course of conduct. **Descriptive research** or Causal research are two types of conclusive research. This study belongs to the descriptive research category.

#### **Sampling Plan**

#### **Population , Sample Size and Sampling Technique**

Permanent employees working in or around Pune for IT companies and a total of 542 participants were surveyed and random sampling technique were conducted for this study.

#### **Data Collection**

#### **Primary Data**

A well-structured questionnaire is used for the primary data collection from the samples. Data on employee engagement variables was gathered using a 20-item questionnaire created specifically for the purpose. A 44-item questionnaire was used to collect information on employee engagement drivers.

## **Secondary Data**

Additional information about employee engagement was gathered from web sites, publications, and other sites.

## **Scale Development**

Each factor was rated on a 5-point Likert scale. For the sake of data analysis, each parameter was given a summated rating, and the content validity scale was summed up in a single item scale.

## **Statistical Tools used**

IBM's statistical package for the social sciences version 25(SPSS) for descriptive statistics and PLS- Structural Equation Modelling (PLS-SEM) is used for data analysis.

## **Hypothesis Development**

H1: Personal factors that positively have an impact on Employee Engagement

H2: Organizational factors positively forecasts Employee Engagement

H3: Job related determinants have a positive impact on Employee Engagement

## **Reliability**

100 samples were evaluated for reliability and validity, and it was discovered that each variable related to the construct has a Cronbach alpha value more than 0.7, hence validity was checked.

## **Validity**

15 SMEs (SUBJECT MATTER EXPERTS) were consulted for substance and construct validity, and each question was evaluated.

## **Measures**

Middle level managers and junior staffs of IT companies in and around of Pune were selected for survey for this study, and the sample of (N=542) is collected by using structured questionnaire. All the measures are formulated and used in the study are developed from the reliable sources of the literatures and 5- point Likert scales were used to measure the impact on the employee engagement.

Employee engagement is highly reflective construct and measured with 5-point Likert scale with the help of 8 questions. Sample questions like "willing to give extra effort to help your organization succeed", "supported in taking advantage of available career opportunities across this company", "are you extremely satisfied with the company as a place to work?" and "Do you feel comfortable contribute your ideas?".

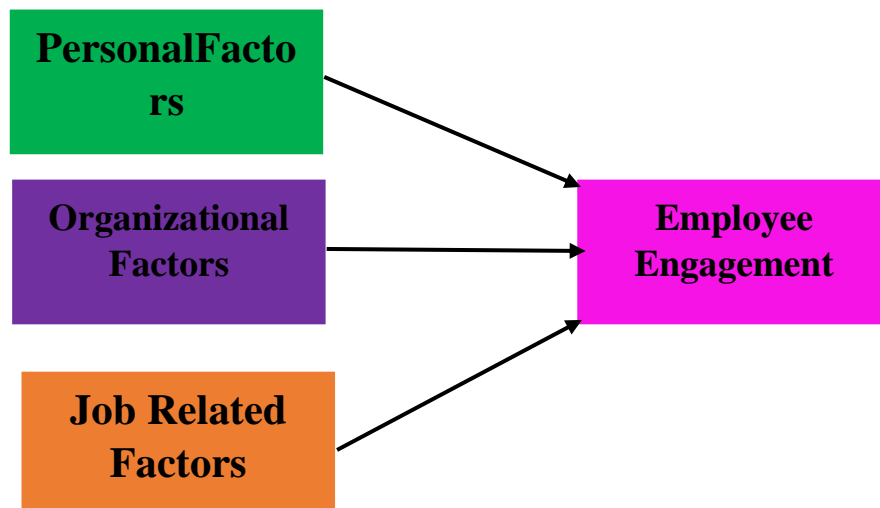
Another highly reflective construct is Personal factors, and it is measures with the help of 5-Point Liker scaling. Sample items like "have opportunity to contribute your decisions?", "executive team contribute to a positive work culture", "glad enough to refer

a good friend or family member to your company for employment” , “I feel I have made progress at work” and “you feel proud to tell people where you work” .

Related to the Job-related factors , it is also highly reflective factor of the study. Some of the example questions are like “feel communication is encouraged in this organization?”, “trust the information you receive?”, “open and honest two-way communication in my organization.”, “feel that the rewards/recognition given to you are fair?” and “manager gives genuine feedback every time (both good and bad feedback).” by Watson Wyatt (2006& 2007).

Organizational factor has high reflective construct in this study . Few example questions are polled like “ Do you think that your manager have a cordial relationship with all his fellow workers? “ , “feel that your supervisors guide you when you needed?” , “immediate manager effectively communicates the company’s strategies, goals, and objectives” , “your supervisor helped you to succeed in your position?” and “Do you feel that your managers are helpful?”

### Research Model



Picture2: Research Model

### Data Analysis

Structural Equation Model (SEM) is a data analysis technique (SEM) According to Sugiyono (2013: 329), if a model has more than one dependent variable, employing a regression equation to solve the model is ineffective. Other analytical techniques, such as structural equation modelling, are required, such as the model in the form of multiple dependent variable structures (SEM). The goal of SEM analysis is to create a structural model that may be used to forecast or establish the model's validity.

Furthermore, SEM can be used to determine the amount of the influence on the dependent variable, both direct and indirect, as well as the impact of complete free determinants (exogenous variables) (endogenous variable).

## Results and Interpretations

### Descriptive Statistics

For first analysis and descriptive statistics, data was entered into IBM's statistical package for the social sciences version 25(SPSS).First and foremost, according to the demographic characteristics (see Table 1) of the collected study sample, 288 of the 542 respondents were male, and most of the respondents were between the ages of 31 and 40.Furthermore, most respondents (284) fall into the category of up to 5 years of experience in the current experience area.Added to that major respondent (316) fall into the category of Married and graduates (203) from operational (194) functional areas belongs to the Indian companies (249).

Variable	Category	Frequency	Percentage
<b>Gender</b>	Male	288	53.14%
	Female	254	46.86%
<b>Age</b>	18-30	185	34.13%
	31-40	234	43.17%
	41-50	119	21.96%
	51 and above	4	0.74%
<b>Maritalstatus</b>	Single	134	24.72%
	Married	316	58.30%
	Separated	92	16.97%
<b>Qualification</b>	ITI/Diploma	112	20.66%
	Graduate	203	37.45%
	Postgraduate	95	17.53%
	Professionals	132	24.35%
<b>Geographic Orientation</b>	Indian Company	249	45.94%
	Indian MNC	140	25.83%
	Foreign MNC	153	28.23%
<b>Function</b>	HR	132	24.35%
	Finance	106	19.56%
	Operations	194	35.79%
	Marketing	110	20.30%
<b>Salary Range</b>	Up to 20,000	321	59.23%
	20,001 to 40,000	100	18.45%
	40,001 to 80,000	106	19.56%
	Above 80,000	15	2.77%
<b>WorkExperience</b>	Up to 5 years	284	52.40%
	6 to 10 years	149	27.49%
	Above 10 years	109	20.11%

**Table 1: Frequency Analysis for Demographic variables**



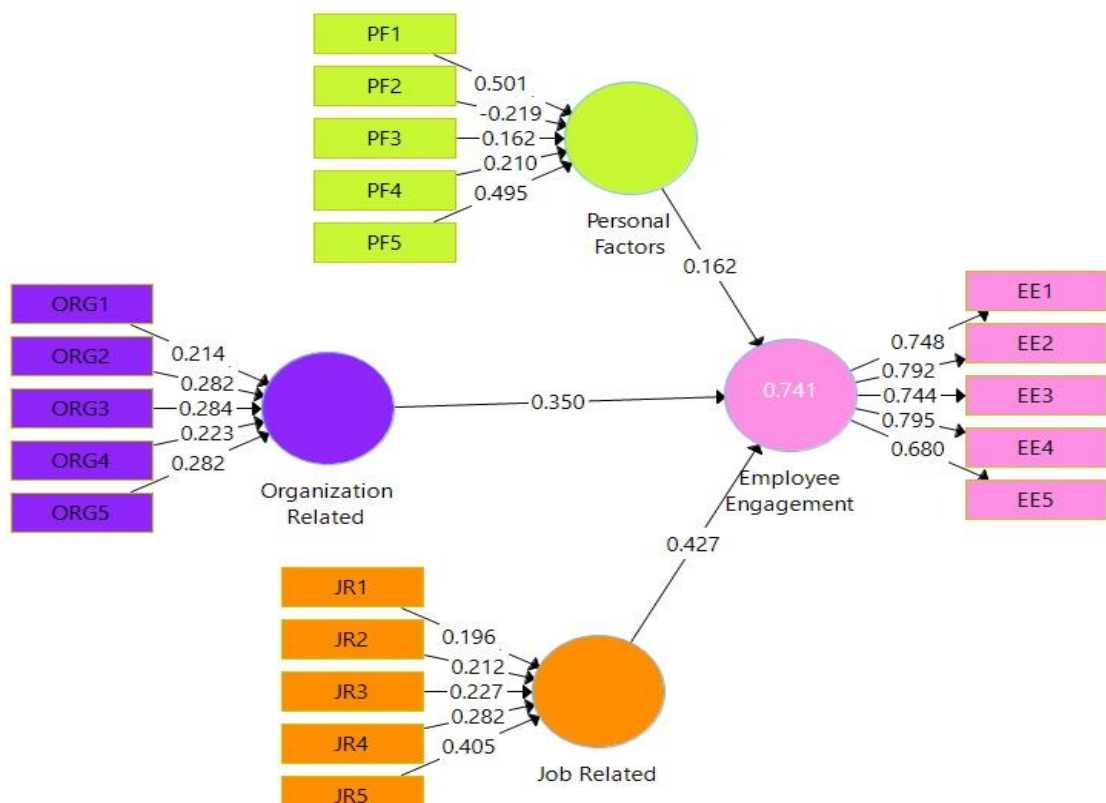
### Measurement Outer Model Analysis

Personal factors, Organizational and Job-related factors are unidimensional reflective constructs, which has a positive impact on employee engagement. With respect to the outer model analysis for all the reflective constructs (See Table 2) has the satisfactory outcomes which evidentially satisfying the cut-off values of the consistency. As per Hair, Hult, Ringle, & Sarstedt, 2017 stated that for consistency should satisfy Cronbach alpha  $\geq 0.70$  and compositere liability-CR  $\geq 0.70$ , and convergent validity of item-loadings  $\geq 0.708$ , average variance extracted AVE  $\geq 0.50$ . In our study Employee Engagement has Cronbach alpha= 0.808 and rho\_A value of 0.814, composite reliability of 0.867 and Average Variance Extracted = 0.567 which is satisfied all the rules of consistency. Hence, we have an adequate evident proof of reflective higher order construct on employee engagement.

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
<b>Employee Engagement</b>	<b>0.808</b>	<b>0.814</b>	<b>0.867</b>	<b>0.567</b>
<b>Job Related</b>		<b>1</b>		
<b>Organization Related</b>		<b>1</b>		
<b>Personal Factors</b>		<b>1</b>		

**Table 2: Construct Reliability and Validity**

Secondly, for outer model analysis all the reflective constructs are tested and developed Model (See Picture2).



**Picture2: Structural Equation Model (SEM) Output**

### Discriminant Validity

Discriminant validity is a key indicator of how well items accurately measure respective relevant constructs. There are different types are there to test the discriminant validity , but we used Fornell-Larcker Criterion to test and validate the discriminant validity.

As per Fornell-Larcker Criterion, as mentioned in the table 3 , Because the square root of the AVE (provided on the diagonal line) is greater than the covariance between variables, the constructs' discriminant validity is demonstrated (Hair, Sarstedt, et al., 2019).As a result, the discriminant validity of the study's constructs has been confirmed.

	Employee Engagement	Job Related	Organization Related
Employee Engagement	0.753		
Job Related	0.814		
Organization Related	0.796	0.776	
Personal Factors	0.713	0.712	0.707

**Table 3: Discriminant Validity based on Fornell-Larcker Criterion**

### Structural Model Analysis

For evaluating the model's resilience, bootstrapping has been done with 1000 samples to test the structural equation model (SEM). Based on the picture 3 SEM- output , formulated the theoretical model of the research is statistically fulfilled and meaningful. Because of the endogenous variables personal factors, organizational and job-related factors are having large variance on employee engagement ( $R^2 = 0.741$ ), for personal factor ( $R^2 = 0.162$ ) , for organizational factor ( $R^2 = 0.350$ ) and Job- related factor ( $R^2 = 0.427$ ). Thus, the hypotheses 1, 2 and 3 are significantly having positive relationship and having larger direct impact on the Employee Engagement. More specifically in comparison of all three reflective constructs, organizational and job-related factors having larger direct than the personal factors.

### Discussion and conclusion

Overall, the outcomes of this study are consistent with the theoretical principles stated in it. Other than the personality characteristic factor scores are found to be relatively high. In comparison to the personal attribute, the respondents' perceptions of the organisational climate and job- related factors were found to be equally positive. The current study's findings are consistent with the limited evidence on the positive association between Personal, organizational, Job-related factors and employee engagement (Schmitt et al., 2016). However, one intriguing discovery is that all three reflective constructs have a significant direct and indirect impact on employee engagement and attentive service performance. It demonstrates the relative value of an individual's growth mindset in predicting proactive service behaviour of IT employees while also considering a contextual element, interpersonal relationship. Kahn, W.A. (1990) compared these findings show that several of the policies and practices in the field of human resource management should be improved significantly. It lays the theoretical groundwork for explaining how employees need to choose to become even

more or less interested in their jobs personally if they find them fascinating and there are sufficient resources to complete the assignment. Furthermore, when an employee receives socio-economic benefits, they feel obligated to the firm and wish to repay them in the form of involvement. Furthermore, an organization's atmosphere has a significant impact. Employees will stay longer in firms where they find a positive environment, a feeling of teamwork, and learning chances. The respondents, for example, are determined to have a sense of self – efficacy, Williams, L.J. and Anderson, S.E. (1991).

### **Practical implications**

HR interventions are urgently needed, as evidenced by the findings of the study. According to the findings, there are numerous concerns about HR rules and practises. Bernthal, P.R. and Wellins, R.S. (2003) , It is necessary to investigate why employees do not find HR practises fascinating, as well as their perspectives on the subject, so that management may make informed decisions. To put it another way, in the current study, employee engagement was not shown to be the result of any management activities that were seen positively by the employees.

Employee engagement, on the other hand, is driven in this case primarily by personal characteristics as well as a situational component that appears to be overlooked by management. The findings show that if a business values its people and believes that engaged employees are a benefit to the company, it should invest in enhancing the workplace climate.

### **Limitations and Recommendations for Future Studies**

It's important to understand some of the study's limitations. Traditionalists (over 60-year-old employees) could not be included in the sample since they are often reticent to express their thoughts. Even though the current sample contains a diversified workforce, the sample distribution is not equal among all employees from all sectors and countries. Because the study could not cover various sectors and nationalities equally, the conclusions cannot be applied to other industries or organisations.

Despite these limitations, the study's contribution can be seen in a variety of ways. The study includes a reasonably thorough analysis of the literature as well as coverage of employees in India and abroad. The trustworthiness of few variables was determined by using the standard norms for determining a variable's psychometric quality. Both personal and situational elements are included in our quest for significant determinants of employee engagement. Finally, rigorous statistical approaches were used to evaluate the study's primary data in order to derive conclusions.

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