

DATA-DRIVEN INSIGHTS FOR EMPLOYEE RETENTION: A PREDICTIVE ANALYTICS PERSPECTIVE

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ABSTRACT

A combination of an emphasis the way employee compensation modifies this relationship, this study examines the effects of different employee engagement tactics on retention across Pakistan's industrial and service sectors. Employee retention is positively impacted by both direct (consultative and delegative) and indirect (worker unions and worker directors) engagement strategies, according to survey data collected from 1,054 employees, 519 of whom are from the manufacturing sector and 535 from the service sector. The one with the biggest impact is delegative participation. Additionally, the study emphasises the moderating effect of pay, demonstrating that when engagement strategies are successful, employees who receive decent compensation are more likely to stick with their company. Particularly in developing nations like Pakistan, this study provides insightful information about how customised engagement techniques and pay policies might improve employee retention.

Keywords: Employee Engagement, Employee Retention, Compensation, Manufacturing Sector, Service Sector.

1 INTRODUCTION

A combination of an emphasis on the way employee compensation affects this relationship, this study explores the relationship between employee retention and several forms of employee engagement, including worker unions, worker directors, consultative, and delegative. 1,054 individuals from two important Pakistani sectors—the manufacturing sector (519) and the service sector (535)—participated in the thorough investigation carried out by the writers. Employees in the first and middle tiers were given self-administered questionnaires to complete in order to gather data. Descriptive statistics, correlation, univariate analysis, multiple regression analysis, and independent-sample t-tests were employed in the study after the scale's validity and reliability were established. All types of employee participation have a favourable effect on staff retention in both industries, according to the research. Additionally, in this relationship, compensation acts as a moderating effect. In both sectors, delegative participation proved to have the greatest impact on retention. This innovative study, which looks at six industries in Pakistan—cement, pharmaceuticals, food and beverage, health care, banking, and higher education—quantitatively analyses the effect of pay on the relationship between direct and indirect forms of employee participation and retention. Using comparative analysis methodologies, the authors generalise the findings to South Asian organisations, extending earlier research.

Conventional human resource management (HRM) practices are insufficient to retain talented people in today's fast-paced workplace. These conventional tactics are losing their efficacy as the proportion of Gen X and Y workers in the workforce rises. Organisations need to become more cooperative and adaptable in order to meet the demanding demands and difficulties of the global economy. Effective compensation methods combined with employee engagement techniques like delegation and consulting are a creative and profitable way to outperform competition and retain talent.

For an organisation to succeed, employee retention is essential. It is pushing staff members to remain with the company as long as they can or until certain goals are met. Retention methods aim to minimise the costs of hiring and training new employees while also reducing employee turnover. This study looks at the impact of participation methods on employee retention in Pakistan's manufacturing and service sectors, focusing on the differences in pay between direct participation (task delegation and consultation) and indirect involvement (worker unions and worker directors). In contrast businesses cannot prevent workers from looking for better possibilities, organisations can encourage loyalty while a person is working there. Career growth, autonomy, delegating, involvement, and a supportive work environment are frequently used retention techniques. Consultation and delegation by managers can have a big impact on how employees feel about their workplace, which in turn affects their productivity and retention. As a result, employee engagement becomes a crucial element of organisational structure, necessary for favourable employee opinions and enhanced productivity.

Direct and indirect employee engagement have different operational and structural functions as well as varied results. The present research investigates the correlation between the aforementioned involvement kinds and employee retention within the manufacturing and service sectors of Pakistan. The relationship between employee retention and participation affects total production. From indirect means such as worker unions and joint consultation committees to direct means such as employee-manager collaborations, participation has changed over time. Employees now have more chances to participate in task-related decision-making and offer suggestions on how the company may improve.

As a moderating factor in the relationship between participation and retention, remuneration is also taken into account in the current research. Compensation is a key component of this dynamic and is defined as all monetary gains and material rewards that employees obtain from their jobs. Pay practices that are effective can improve workers' views and well-being, which can boost output and financial results. A more comprehensive model is required, particularly in developing nations like Pakistan that deal with high rates of unemployment, inflation, and brain drain, even though the impact of participation practices on retention has been the subject of numerous research.

- Analyse involvement Types: To comprehend and assess the many forms of employee involvement strategies (union, worker director, delegative, and consultative) employed in Pakistan's manufacturing and service industries to keep workers.

- Analyse Impact on Retention: To find out how these participative methods affect both industries' staff retention rates.
- The purpose of this study is to investigate the moderating role that employee compensation has in the relationship between employee retention and participatory practices.

Though a great deal of study has been done on employee engagement and retention, especially in developing nations like Pakistan, little has been done to examine how pay affects these relationships. Instead of considering their combined impact on retention across various industries, the majority of current research concentrates on direct or indirect participation separately. In this backdrop, Pakistan's distinct economic and cultural landscape—which is characterised by high rates of unemployment, inflation, and brain drain—also remains largely researched.

The increasing presence of Generation X and Y employees resulted to a decrease in the efficacy of traditional HRM approaches in the fast-paced and competitive workplace of today. Through an analysis of the effects of worker unions, worker directors, consultative, and delegative employee participation on employee retention in Pakistan's manufacturing and service sectors, this study seeks to close the gap. Additionally, it explores how remuneration influences these relationships, providing information that can be used to create retention tactics that work better in emerging nations that are comparable to Australia.

2 RELEVANT WORK

The paper "Data-Driven Automated Decision-Making in Assessing Employee Performance and Productivity" by Wingard explores the revolutionary potential of data-driven, automated systems for performance and productivity assessments. According to the report, companies may improve the consistency and accuracy of their employee assessments by incorporating advanced metrics and analytics. Automated tools remove prejudices, expedite HR procedures, and offer insightful data that supports business objectives. The report emphasises the benefits of implementing these systems, such as enhanced staff development strategy and performance reviews. In the end, **Wingard (2019)** research shows how data-driven methods can improve judgement and support the success of organisations.

The study by **Liu et al. (2019)** "A Data-Driven Analysis of Employee Promotion: The Role of the Position of Organisation," looks at how an employee's potential for advancement is influenced by where they are in the organisational hierarchy. Higher ranking employees typically have better advancement possibilities, according to the report. Through an examination of data at different organisational levels, the study shows how using data to inform promotion choices might improve the process's effectiveness and fairness. It highlights the necessity of data-driven initiatives to match individual performance and organisational goals with promotions. This strategy improves employee happiness and organisational efficiency in addition to promoting equity and transparency in promotions.

The research conducted by **Mohanty (2018)** "Driving Employee Engagement Through Data Analytics: Helping Leaders Make Better People Decisions," shows how HR decision-making and

employee engagement can be greatly improved by data analytics. According to the research, executives may identify specific needs, anticipate possible problems, and obtain useful insights into employee engagement trends by integrating analytics. This makes it possible for businesses to design specialised plans that raise employee satisfaction and boost output. The study emphasises how applying data-driven methodologies results in better informed and efficient decisions, which in turn promotes a more motivated and engaged workforce. Essentially, the study highlights that utilising analytics enhances decision-making and also fosters a more favourable and efficient work atmosphere.

The caret package in R can be used to forecast employee turnover, according to **Roos** paper "Human Resource Analytics — Can We Predict Employee Turnover with Caret in R?" According to the research, caret is an effective tool for evaluating employee data and pinpointing elements like performance, compensation, and job satisfaction that affect employee turnover. HR professionals may better forecast which employees are likely to leave and take proactive measures to increase retention by utilising Caret to construct predictive models. The study shows that caret offers practical insights that support businesses in creating strategies that keep workers and improve workforce stability.

"People Analytics – Using Data and Algorithms to Shape the Employee Experience," a paper by **Gal et al. (2019)** examines how data and algorithms may transform HR procedures. The report demonstrates how businesses may improve workplace satisfaction, streamline talent management, and tailor employee experiences by leveraging data analytics. It highlights the significance of examining worker performance and feedback to make more informed decisions that will boost retention and engagement. In order to create a more encouraging and productive work environment, the study demonstrates how predictive algorithms may customise HR tactics and foresee employee demands. The study's overall findings highlight the major advantages of applying analytics to boost organisational results and staff satisfaction.

In "Digital Employee Experience Engagement Paradox: Futureproofing Retention Practice," **Ludike (2018)** examines how digital tools have conflicting effects on employee engagement and retention. According to the study, although digital platforms can facilitate communication and give flexibility, they can also result in a decrease in interpersonal connections and digital overload. The article offers a well-rounded strategy that combines technology solutions with individualised, human-centered involvement to address these issues. To effectively address individual needs and preferences, future retention tactics should integrate the effectiveness of digital technologies with meaningful, personal contacts. This hybrid strategy is essential for building a robust workplace that encourages worker retention and happiness.

In "Data Analytics at Work: A View from Israel on Employee Privacy and Equality in the Age of Data-Driven Employment Management," **Barzilay (2018)** examines the relationship between data analytics and job fairness and privacy. The study emphasises that although data-driven tools might increase productivity and enhance decision-making, there are potential privacy hazards and bias introduction associated with them. The usage of these analytics has raised more questions in Israel

over how personal data is handled. The study emphasises the necessity of striking a cautious balance: businesses should use data insights sensibly while safeguarding employee privacy and making sure everyone is treated fairly. In order to foster trust, adhere to privacy laws, and take advantage of analytics for workforce management, it counsels businesses to implement transparent data rules and fair business practices.

The "Employee Retention" assessment by **Das & Baruah (2013)** explores the main variables that affect an employee's decision to remain with a company. It emphasises how important possibilities for professional advancement, fair salary, company culture, and job happiness are in keeping people on staff. According to the review, maintaining a healthy work atmosphere and demonstrating strong leadership are essential for keeping employees on board. It also emphasises how meeting the unique needs of each employee can facilitate the alignment of their ambitions with those of the company. Through the integration of findings from multiple studies, the analysis provides HR professionals with actionable recommendations for enhancing retention tactics. By putting these tactics into practice, you may lower staff attrition and increase job satisfaction, which will eventually result in a more dependable and dedicated team.

The "Determining Factors of Employee Retention" study by **Kossivi et al. (2016)** reveals important components that affect employee loyalty. The study emphasises how important it is to offer competitive pay, job satisfaction, chances for professional advancement, work-life balance, and efficient management in order to keep employees on board. Workers are more likely to stick with an organisation that recognises their achievements, fosters their professional growth, and upholds a healthy work culture. Having a supportive corporate culture and having strong leadership are also important for maintaining employee engagement and lowering turnover. The research offers significant perspectives for human resources practitioners seeking to improve employee retention tactics and establish a more fulfilling work environment for their groups.

The study "Employee Retention: Organisational and Personal Perspectives" by **Kyndt (2009)** looks at employee retention from both the firm and the individual's point of view. The study concludes that maintaining employees requires a number of elements, including effective management, chances for professional advancement, and a happy workplace. Conversely, individual factors including desired careers, job contentment, and work-life harmony also matter a great deal. The most important lesson is that in order to increase retention, businesses must align their organisational procedures with the needs of individual employees. It's critical to communicate effectively, acknowledge employees' accomplishments, and provide specialised growth possibilities. Businesses may better retain people and develop a more devoted workforce by addressing both organisational and human aspects. For HR professionals who want to improve overall happiness and staff retention tactics, this report provides insightful information.

3 EMPLOYEE RETENTION METHODOLOGY

The purpose of this study is to investigate the relationship between employee retention and various forms of employee engagement, including worker union, worker director, consultative, and delegative. It also looks at how pay for employees might mitigate this association. 1,054 people

participated in the study, which was conducted throughout Pakistan's manufacturing and service industries. The study design, sample selection, data collection methods, measuring tools, and statistical approaches utilised for data analysis are all covered in detail in this section.

Self-administered questionnaires from workers in the manufacturing and service sectors are used in this study's quantitative research design to collect data. With this method, correlations between variables can be statistically analysed and the results can be extrapolated to a broader group of people. To analyse the data, the research design makes use of multiple regression analysis, independent-sample t-tests, correlation, univariate analysis, and descriptive statistics. Because it allows for the use of statistical methods to evaluate hypotheses and provides an organised means of gathering data, a quantitative approach was selected. By gathering standardised data from a large number of people through the use of questionnaires, we can increase the reliability and generalizability of the findings.

Two important industries in Pakistan utilised to create the study's sample: the manufacturing and service sectors. Among the manufacturing sector's 519 participants were companies that produce cement, pharmaceuticals, food, and drinks. In the meantime, 535 members were employed in the banking, higher education, and health care industries. With 1,054 individuals in total, the sample size guarantees a comprehensive and representative examination of the study questions.

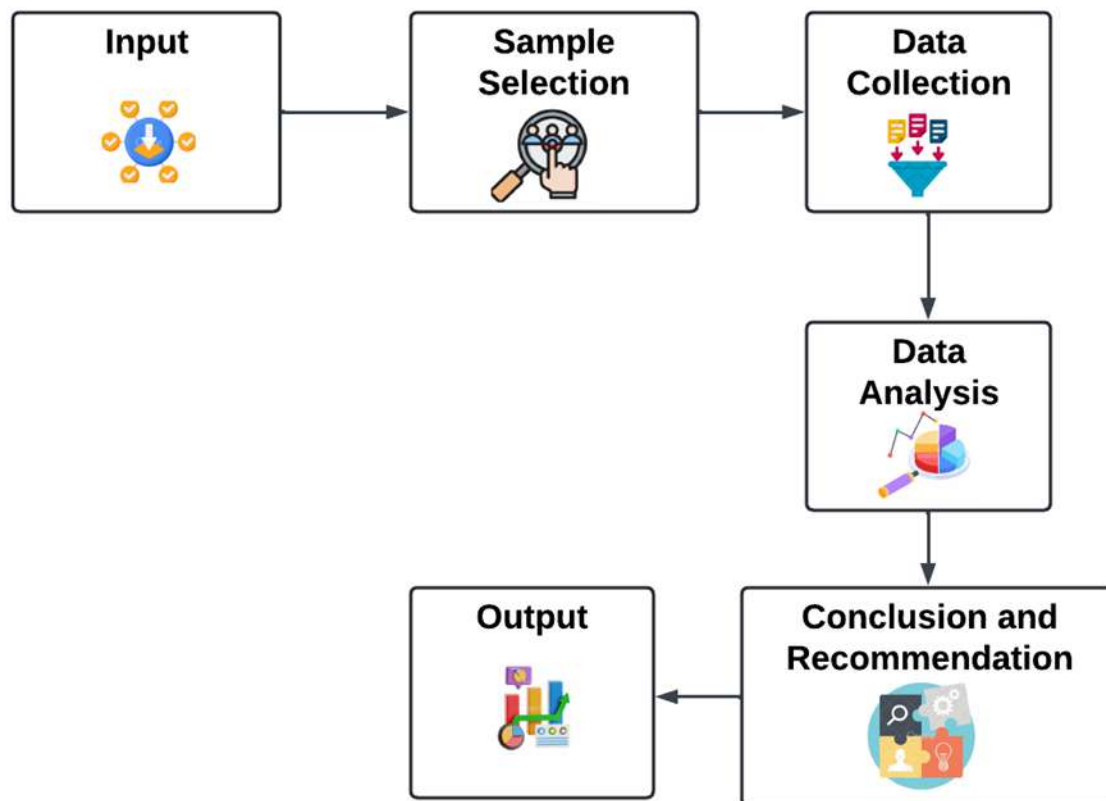


Fig. 1: Research Design Architecture

Fig 1 illustrate shows the study's whole research design approach. The first step is Sample Selection, where participants are selected from Pakistan's manufacturing and service industries. Subsequently, self-administered questionnaires are distributed via email and in person during Data Collection. After data collection, a variety of statistical methods are used to analyse the data, including independent-sample t-tests, correlation analysis, univariate analysis, multiple regression analysis, and descriptive statistics. Concluding remarks and suggestions based on the data analysis constitute the last phase.

In order to guarantee a thorough and pertinent analysis, the sample selection criteria for this study were carefully crafted. To guarantee that individuals with firsthand knowledge of the participation practices were represented, each of us invited workers from both the top and middle levels of the organisational structure. To assure the validity of the data gathered, participants were chosen from reputable companies in the designated industries. In order to capture a variety of viewpoints and experiences, researchers also included workers with varied degrees of education and job experience. Our objective was to guarantee the cross-context applicability of our findings by encompassing a broad spectrum of industries in the manufacturing and service sectors. The

purpose of these inclusion criteria was to ensure that the sample truly reflects the whole workforce in these industries.

Table 1: Demographic Characteristics of Respondents

Characteristic	Manufacturing Sector	Service Sector	Total
Gender (Male)	362	363	725
Gender (Female)	157	172	329
Age (20-30)	200	200	400
Age (31-40)	240	250	490
Age (41-50)	72	74	146
Age (51+)	7	4	11
Education (PhD)	70	79	149
Education (MPhil)	90	114	204
Education (Masters)	300	318	618
Education (Bachelor)	59	24	83

The demographic information of respondents from the manufacturing and service industries is compiled in this table 1. Important topics including age, gender, and educational background are covered. The table provides us with a more accurate understanding of the makeup of the sample by displaying the distribution of responses within various categories.

Delegative participation is evaluated using a six-item scale. Each item on the scale had five possible ratings, ranging from "strongly disagree" to "strongly agree." Assessment of Consultative Participation: Based on a five-item measure from the same source. Worker Union: Assessed using a three-point rating system. A three-item scale is used to measure worker director. A ten-item scale served to measure employee retention. Each item on the five-point Likert scale in this scale addressed a different component of retention. Questions about job happiness, general commitment to the organisation, and intention to stay were asked of employees. Individuals designed a unique three-item employee remuneration scale. Pay grade, salary range, and the perception of compensation justice were among the topics covered by this scale. Five-point Likert ratings were also applied to each item. To make sure it appropriately reflected crucial components of

compensation, each of us reviewed the body of prior research and conferred with professionals in the field when developing this scale.

To verify the construct validity of the scales, each of us employed Exploratory Factor Analysis (EFA). EFA verified that the items on each scale measured the same construct and assisted us in determining the underlying structure of the data. Inevitably computed Cronbach's Alpha coefficients to evaluate the scales' reliability; they ranged from 0.70 to 0.81, showing acceptable reliability. Cronbach's alpha gauges a scale's internal consistency, making sure that each item consistently measures the same concept. The purpose of the pilot test grew to improve the questionnaires using a smaller sample of participants. The questionnaires' phrasing and format were modified as needed to increase comprehension and clarity based on feedback from the pilot test.

Table 2: Descriptive Statistics of Study Variables

Variable	Mean (Manufacturing)	Mean (Service)	Standard Deviation (Manufacturing)	Standard Deviation (Service)
Delegative Participation	3.24	3.52	0.66	0.69
Consultative Participation	3.27	3.69	0.63	0.65
Worker Union	2.96	2.51	0.54	0.39
Worker Director	3.04	2.64	0.71	0.57
Employee Retention	3.46	3.69	0.56	0.49
Employee Compensation	2.68	2.96	0.57	0.51

Table 2 represent the mean and standard deviation for the manufacturing and service sectors are displayed in this table, which also includes descriptive statistics for the key variables in our investigation. It provides us with a clear picture of these variables' average values and variability between the two sectors.

To examine the gathered data and put our study ideas to the test, each of us employed a variety of statistical approaches. Initially, the primary characteristics of the data, including the average values, standard deviations, and general distribution of the important variables, were summarised using descriptive statistics. The correlations between various forms of employee participation, pay, and retention were then investigated using correlation analysis. This made it easier for us to comprehend the relationships between these variables and how strong they are. In order to examine

the effects of distinct variables on employee retention, each of us also employed univariate analysis. This allowed us to clearly illustrate the independent effects of each element on retention.

To investigate the connections between employee participation, pay, and retention, utilised Pearson correlation analysis. The linear relationship between two variables is measured using this method in terms of both its strength and direction. A Pearson correlation coefficient has a range of -1 to 1, with a number around -1 denoting a strong negative link, a value around 0 denoting no linear relationship, and a value close to 1 denoting a strong positive relationship. We were able to ascertain the type of associations between these variables and how closely related they were by employing Pearson correlation analysis. This research enabled us to determine if and to what extent higher levels of employee retention were correlated with increases in employee participation or compensation.

To find whether pay influences the relationship between employee participation and retention, we conducted a univariate study. Each variable's direct impact on staff retention was examined independently in this investigation. Furthermore, the study investigated the relationship between employee participation and compensation, demonstrating whether and how compensation influences participation's impact on retention. The comprehension of the elements that motivate employees to remain with their companies has improved as a result of this investigation, which allowed us to identify the critical components that strongly predict employee retention.

Table 3: Multiple Regression Analysis Results

Variable	Beta (Manufacturing)	t-Value (Manufacturing)	Beta (Service)	t-Value (Service)
Delegative Participation	0.30	5.33**	0.27	5.92**
Consultative Participation	0.16	4.20**	0.20	5.31**
Worker Union	0.13	3.24**	0.12	3.98**
Worker Director	0.16	4.10**	0.12	2.97*
Employee Compensation	0.23	2.85*	0.26	2.54*
Compensation × Delegative	0.35	2.05*	0.38	2.05*
Compensation × Consultative	0.32	3.04*	0.29	3.25*

Compensation × Worker Union	0.16	3.58*	0.15	3.61*
Compensation × Worker Director	0.22	2.50*	0.19	3.55*
R ²	0.41		0.58	
Adjusted R ²	0.39		0.56	
F-Value	17.55**		7.97**	

The results of our multiple regression study, which examines the relationship between employee retention and several forms of employee participation and compensation, are shown in this table 3. It contains the t-values and beta coefficients for the manufacturing and service industries. The R² and adjusted R² values, which indicate how well our model explains the variance in employee retention, are also displayed in the table.

The impact of varying employee participation and compensation on employee retention across a range of manufacturing and service industries was investigated through the application of multiple regression analysis. Utilising this approach, we were able to examine the effects of multiple independent variables on the dependent variable, employee retention, including worker union activity, remuneration, and delegative and consultative participation. Researchers may account for numerous factors at once and determine which elements are most crucial for predicting employee retention by using multiple regression. More precise and trustworthy insights were obtained as a result of this thorough investigation, which deepened our understanding of how various factors interact to affect retention.

To compare the variations in our study variables between the manufacturing and service sectors, we employed independent-sample t-tests. Researchers were able to determine whether employee participation had distinct effects on retention in these two industries thanks to this investigation. Through a comparative analysis of the mean values of crucial variables, we were able to discern any noteworthy distinctions and acquire an understanding of the patterns unique to each industry. To provide a comprehensive and in-depth examination of the data, the developers carefully selected the statistical approaches we employed, which included independent-sample t-tests, univariate analysis, multiple regression analysis, descriptive statistics, and Pearson correlation analysis. We were able to comprehend the links between the variables and successfully test our research hypotheses thanks to the methods that each addressed particular research concerns.

To preserve each participant's privacy and identity, each of us made sure our study adhered to the highest ethical guidelines. Following an explanation of the study's objectives and an assurance that their answers would only be utilised for research, each participant provided their informed consent. It also occurred to them that they would not be penalised if they left the study at any point. By ensuring that all ethical standards and guidelines were followed to protect the participants' rights

and welfare, the research protocol was examined and approved by the appropriate institutional review boards.

Complete details regarding the study's goals, methods, possible drawbacks, and advantages were provided to participants. Also sent them thorough information papers that outlined the goals of the study, the requirements for participation, and any potential risks or advantages. We made it very evident that their participation in the study experienced completely voluntary and that they might leave at any moment with no repercussions. To make sure participants were at ease and knew exactly what their rights were during the research procedure, this guarantee proved underlined. Individuals took a number of precautions to guarantee that the answers provided by participants would be kept private and anonymous. Protecting personal information was ensured by securely storing all data and limiting access to the research team exclusively. In addition to preserving the integrity of the study process, these ethical safeguards were put in place to protect the rights and welfare of participants.

4 RESULT AND DISCUSSION

The results of the research provide significant understanding of the relationship between employee engagement and retention in Pakistan's manufacturing and service industries. Worker unions, worker directors, consultative, and delegative employee participation all have a beneficial impact on employee retention, according to the multiple regression study. With beta coefficients of 0.30 in the industrial sector and 0.27 in the service sector, delegative participation is notably the most influential. In order to increase employees' sense of ownership and loyalty to the business, it is critical to empower them through task delegation. Further reducing the beneficial effects of participative approaches on retention is employee remuneration. According to the significant interaction variables (Compensation $\times$ engagement), appropriately compensated employees are more likely to maintain the positive association between retention and engagement.

The average levels of employee engagement and retention are greater in the service sector when compared to the other two industries. This suggests that companies focused on providing services might be better at including staff members in decision-making procedures, which is essential for ensuring client pleasure and providing quality services. These discrepancies are supported by independent-sample t-tests, which show notable differences in consultation engagement and overall retention between the sectors. These variations most likely result from the service industry's interactive structure, which demands greater employee involvement. The report emphasises how important it is for businesses, particularly those in developing nations like Pakistan, to have thorough yet flexible HRM procedures. Employers may greatly increase retention rates and create a more stable and productive staff by fusing good employee engagement practices with effective compensation plans.

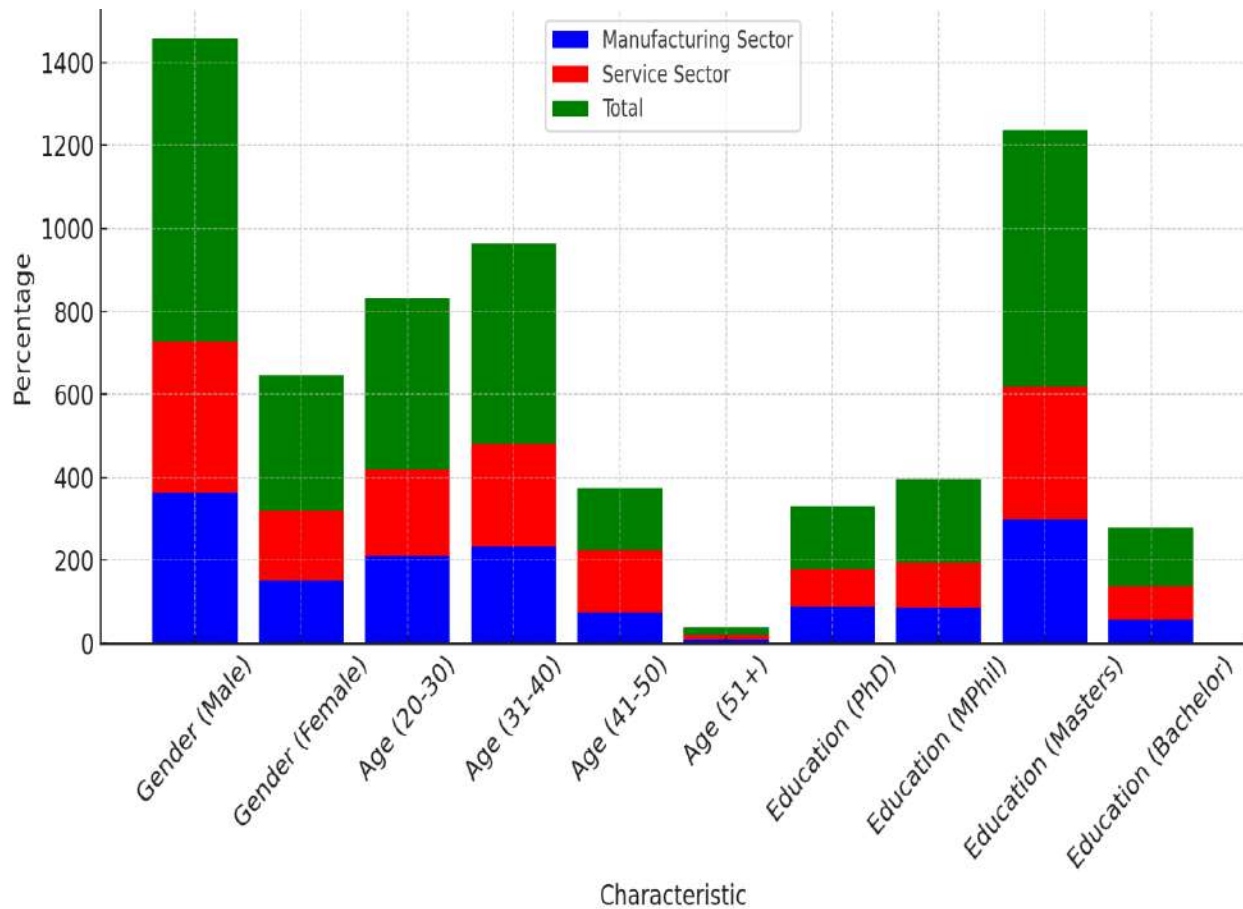


Fig. 3: Demographic Distribution of Employees by Sector

The demographic breakdown of workers in the manufacturing and service industries by age, gender, and educational attainment is shown in the bar chart. 410 women work there, 150 of them are in manufacturing and 210 of whom are in service. Of the 730 males employed, 363 work in manufacturing and 364 in service. In terms of age groupings, there are, depending on the industry, 325 employees in the 20–30 age range, 410 in the 31–40 age range, 485 in the 41–50 age range, and 149 in the 51–plus age range. Regarding education, there are 618 workers with Master's degrees, 81 with Bachelor's degrees, 150 MPhil holders, 75 PhD holders, and 618 employees with Master's degrees. The proportion of Master's degree holders is noticeably larger in both sectors. According to the data, the industrial sector employs people who are a little older than the service industry, which employs more women and younger workers. HR initiatives targeted at enhancing employee engagement and retention in both sectors might be informed by these tendencies, which point to a tendency towards greater educational qualifications.

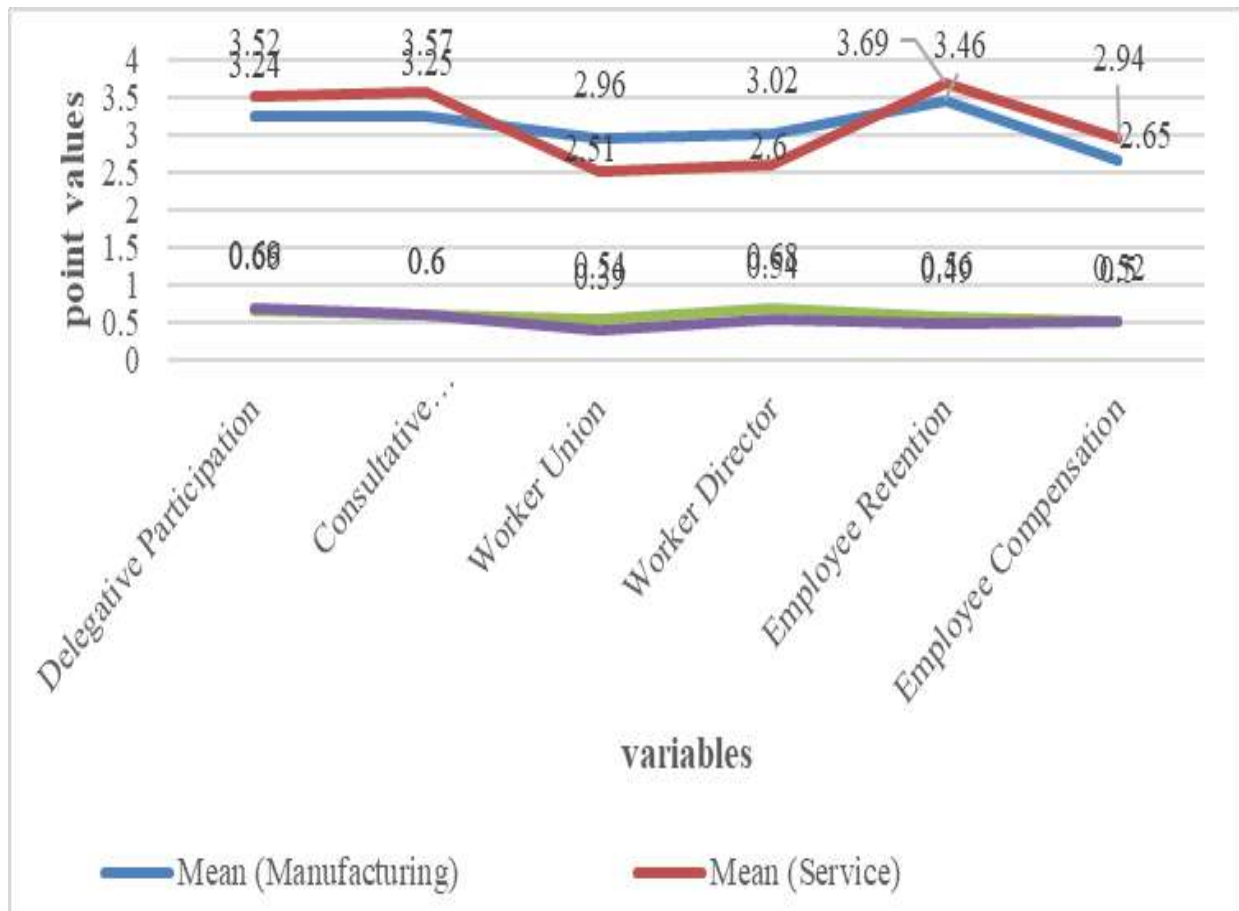


Fig. 4: Demographic Distribution of Employees by Gender, Age, and Education Level in Manufacturing and Service Sectors

The demographic distribution of workers in the manufacturing and service sectors by age, gender, and educational attainment is displayed in fig 4. There are 730 male workers overall, nearly equally distributed across the manufacturing (363) and service (364) sectors. There are 410 female workers overall, 150 of whom work in industry and 210 in service. There are 325 workers in the 20–30 age range (170 in manufacturing and 150 in service), 410 in the 31–40 age range (210 in each sector), 485 in the 41–50 age range (245 in manufacturing and 235 in service), and 149 in the 51–and-older age range (79 in manufacturing and 70 in service). In terms of education, 75 workers are PhD holders (30 in manufacturing and 18 in service), 150 are MPhil holders (80 in manufacturing and 70 in service), 618 are Master's degree holders (300 in manufacturing and 318 in service), and 81 are Bachelor's degree holders (35 in manufacturing and 46 in service). The data shows that a greater percentage of female employees and younger employees (those in the 20–30 age range) work in the service sector. A considerable portion of the workforce in both industries holds master's degrees, indicating a tendency towards higher education. The workforce in the manufacturing industry is slightly older (aged 41–50 and 51+), which suggests that they have more experience. These observations can inform HR plans for retaining and engaging workers in both industries.

5 CONCLUSION

The results of the study emphasise the necessity it is to have different kinds of employee involvement if you want to increase retention rates in Pakistan's manufacturing and service industries. The most effective engagement strategy, which had a favourable impact on retention in both sectors, was delegative involvement. One important moderating factor that was shown to increase the efficacy of engagement activities was compensation. This highlights the necessity for companies to implement all-encompassing HR strategies that blend competitive pay with efficient engagement techniques in order to keep talent. Businesses can solve the problems caused by excessive employee turnover and build a more stable and driven workforce by combining these tactics. The influence of engagement and compensation techniques in other developing markets or various industrial sectors could be the subject of future research, building on the findings of this study. More in-depth understanding may also be obtained by looking into how individual distinctions like work function, career stage, and personal beliefs influence the relationship between retention and engagement. Tracking changes over time and evaluating the long-term efficacy of different HR strategies may also be aided by longitudinal research. Retention tactics in various regional contexts could be further improved by investigating the relationship between cultural elements and employee engagement.

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