Navigating the Brain Drain Challenge: The Role of Compensation, Job Embeddedness, and Commitment in Employee Retention in Pakistan's Telecom Sector

Hira Kanwal 1  Asghar Hayyat 2  Muatar Kiran 3

Abstract: Organizations have a serious problem with employee retention, especially in Pakistan’s telecom industry. Through the eyes of job embeddedness and commitment, this study explores how compensation, specifically job-based pay, affects employee retention. According to research, offering technical workers attractive salary packages is essential for luring and keeping them. A significant number of technicians are leaving Pakistan, though, in search of better-paying jobs abroad, endangering the viability of the organizations. Recommendations include updating compensation guidelines, making skill development investments, and putting job embedding programs in place. Offering attractive packages and rewarding success are essential elements to increase retention. This study emphasizes how important it is to match compensation to global norms in order to encourage job embedding and commitment, ultimately ensuring the lifespan of businesses in the developing telecom sector.

Key Words: Compensation (Job-based pay), Commitment (Normative), Job Embeddedness, Employee Retention

Introduction

People are recognized as a crucial source of competitive advantage, and businesses take a variety of steps to keep their skilled staff members for a long period. As a result, along with cutting wasteful spending and raising staff enthusiasm and capabilities, employee retention has become one of the critical factors for organizational success (Aman-Ullah, Aziz, Ibrahim, & Thought, 2020). Organizations that do not prioritize their human resource management procedures run the risk of losing their knowledgeable and trained personnel, which will result in double the cost due to inefficiency on both the financial and operational fronts (Ezeuduji & Mbane, 2017).

According to (Rialdy, 2021), Employee retention is the process of persuading staff to remain with the business throughout the entire project’s duration and beyond. According to (Riyani & Azizah, 2022), The indicators of staff retention are as follows: (a) Organizational factors, including opportunity, management, and well-managed organizational plans that have a direct impact on employee retention; Companies must offer equitable career prospects to every employee in order to enhance employee retention. (b) Awards are a type of corporate acknowledgment for employee accomplishment. Employees will feel puzzled if the work design is biased and challenging to understand. (c) Employee Relations, a positive working environment fosters a sense of belonging among employees. Compensation, organizational commitment, work motivation, and employee retention are all correlated.

Organizational commitment demonstrates an individual’s willingness to put in the necessary effort for an organization, level of acceptance of its principles, and tenacity in upholding organizational

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The degree of job embeddedness may influence employee retention and turnover intentions. (Harris, 2012). In their study, (Cheah, Sarstedt, Ringle, Ramayah, & Ting, 2018) found that work embeddedness can enhance ER. They also specified that the operative strategy to reduce turnover is to increase employees' job embeddedness. Employees who feel more a part of the company are less likely to leave. (Dechawatanapaisal, 2018).

Job embeddedness is the term used to describe the various factors that keep employees from abandoning their jobs. (Yao, Lee, Mitchell, Burton, & Sablenski, 2002) Three dimensions are used to explain this link. Links. These are relationships, either formal or informal, between a person and their organization or other people. (Mitchell, Holtom, Lee, Sablenski, & Erez, 2001). Coworkers and clients are two examples of linkages in an organization. Family and friends in the area are two examples of ties outside of the workplace. (Adams, Webster, & Buyarski, 2010). Fit. It reflects how comfortable or compatible the person feels with the organization and its surroundings. (Mitchell et al., 2001). (Adams et al., 2010) have clarified that organizational fit is the degree to which information, necessary skills, work styles, and organizational culture are compatible.

Non–work or external fit refers to a person's compatibility with the community's ideals or with the lifestyle that it promotes. Sacrifice. It indicates the estimated expenses of the real and intangible benefits that staff members would forfeit if they left the company. (Mitchell et al., 2001). According to (Adams et al., 2010), the internal factors of an organization that could be lost are status, prestige, payments, and benefits. External factors may include community clubs, hobbies, and a change of schools, among others. Therefore, these three dimensions encompass both work and non–work aspects. This means that job embeddedness is considered to play a role both at work and outside of work. The former refers to the forces that keep an employee "tied" to their position and the latter considers the aspects of personal life and the community that keep them geographically stable (Ng & Feldman, 2010). (Yu, Lee, Han, Kim, & Tourism, 2020) It has been asserted that employees who are job–embedded feel more connected to their coworkers, organizations, and work, sustaining their participation.

Compensation is essential when it comes to retaining staff, as (M Pd, Si, & Rahmiatin, 2020) highlighted. One of the tactics for boosting employee retention is the management of remuneration, which is delicate in workplaces and can encourage employee retention. However, many employees may gradually leave the company if the salary is badly managed since they do not feel appreciated. According to (Maulana, 2020), if external factors show a relationship to compensation: (a) Salary and wage (wage is a payment made to employees in accordance with the number of hours worked, while salary is a monthly payment made to employees by the company that is routine and fixed.) (b) Incentive (a sort of payment made by the business to the staff as extra money on top of their monthly salaries or salaries for their hard effort at work) (c) Allowance (a type of indirect remuneration that protects and supplements the base salary through payments and services) (d) Facilities that are connected to the pay received during work. Job satisfaction and eventually organizational commitment are influenced by compensation, which can be classified as intrinsic or extrinsic, financial or non–financial, and direct or indirect advantages. (Shortland, 2018). The three forms of pay that can be included in a compensation structure are job–based pay, skill–based pay, and performance or competency–based pay. Job–based pay, which is based on a job’s relative worth, responsibility, and degree of difficulty, is the most popular and conventional kind of remuneration. (Leritz, 2012).

Over 765,000 Pakistanis will leave the country in search of employment abroad in 2022, according to the Bureau of Emigration and Overseas Employment. Over 900 teachers, 2,500 doctors, 1,600 nurses, about 5,500 engineers, 2,000 computer/IT experts, 2,600 agricultural experts, and 6,500 accountants departed Pakistan, according to a breakdown by The Tribune. The remaining were workers who went to the Gulf States to make a living and are vital sources of remittances for the nation, but the high number of qualified workers leaving is worrying (Sajjad, 2011). When poverty levels are high and the economy is experiencing
negative growth, as they do in Pakistan, (APP, 2021). There is no denying the significance of recompense. Therefore, based on the aforementioned justifications, we suggest that factoring in remuneration is a potential remedy for Pakistani workers' high turnover intentions and low retention rates. In a similar vein, we contend that by examining employees' intentions to leave and compensation in one study, the current research would add to the management literature.

In today's competitive environment, technology and awareness are key factors in making the competition more ferocious and severe. Since people produce profits and are seen as an organization's capital or asset, retention has become one of the main problems in Pakistan's telecom sector. The most crucial thing to do to keep up with this changing competition in the telecom industry of Pakistan, which is one of the fastest-growing in the country, is to work on the most crucial factors affecting employee retention, specifically the contribution of these factors to employee retention.

This study's goal is to investigate the telecom sector's capacity to keep workers by looking at several factors. Reducing staff churn is a crucial and strategic issue. No company can achieve and maintain success until it effectively and successfully addresses the turnover issue. The most important thing is to set the stage for a long-term commitment. Currently, this study would be important in determining how compensation affects ER. The study is significant in that it explains how organizational commitment and job-embedded ability work together to keep employees loyal to the company. The study's strength rests in its information on how to boost employee commitment and win employee loyalty by reducing turnover. A greater grasp of how to manage compensation practices while keeping in mind the characteristics of employee commitment, employee retention, and job embeddedness would be aided by the findings of the study. The fact that fair wage practices have a stronger impact on employee retention rates and their dedication to the company is provided by this research, which is a useful tool for telecom companies.

Literature Review
The theoretical model advanced by (Martin & Kaufman, 2013) consists of three major components that lead an employee of an organization to intend to quit such as HRM practices, some psychological factors, and outcome variables.

According to the theory, HRM practices are the primary determinants of job satisfaction and organizational commitment, which in turn influence an employee's intention to stay on the job or leave. (Rubel & Kee, 2015; Sabiu, Mei, & Joarder, 2016). Organizational leaders must be aware of the needs and surrounding conditions of their employees in order to address these challenges. (Martin & Kaufman, 2013). For instance, recruiting and hiring are crucial tasks since a person's job and organization fit, or lack thereof, can increase negative motivation and lead to employee discontent and low commitment to the work and organization. (Whitener, 2001). Similar to non-competitive wages, inadequate training, and poor supervision, these factors can cause high levels of stress in workers, which in turn causes job discontent and low employee commitment to the organization's goals (Martin & Kaufman, 2013).

The psychological elements—job satisfaction and organizational commitment—remain at the core of the approach. According to research, loyalty to the company and job happiness are key factors in employee retention and lowered quitting intentions. (Joarder, 2012). Either staying in a job or leaving it is listed as the outcome variable. Employee turnover is actually expensive for any company. The minimal costs of employee turnover, including both direct and indirect expenses, equal one year's worth of wages and benefits. (Ramlall, 2004).

(Martin & Kaufman, 2013) In-depth organizational study has extensively tested theory. An organization wastes time, money, and other resources if it hires people who are unmotivated to learn their jobs or carry out the duties required of them. (Latham, 2012; Martin & Kaufman, 2013). The current study's underlying hypothesis is that work embeddedness and organizational commitment mediate the relationship between pay and employee retention.

Hypothesis Development
According to some, HR consists of the systems, practices, and regulations that affect how employees feel, perceive, and act at work. (Bambacas & Kulik, 2013; Tian, Cordery, & Gamble, 2016). Rewards and career
development are two motivation-enhancing practices that are likely to boost how much an employee feels they fit in their current environment and foster the sense of sacrifice that comes with quitting. When the company is thought to follow positive HR practices, it would seem that employees are more inclined to adopt a positive mindset. (Jiang, Liu, McKay, Lee, & Mitchell, 2012)

Jex and Britt (2014) identified when individuals feel highly fit with their work, organization, and community, job embeddedness takes place. When employees build bonds or connections within their communities and workplaces, and when they are willing to make significant sacrifices (in terms of financial or emotional expenses) if they leave their current setting. (Dechawatanapaisal, 2018) stated that the concept of job embedding emphasizes the collection of factors influencing employees' willingness to remain with a company. Therefore, the second hypothesis proposed is that job embeddedness has a positive effect on the intention to stay in accordance with (Thakur & Bhatnagar, 2017) research.

According to previous research, compensation, and employee retention are significantly positively correlated. (Rombaut & Guerry, 2020). Additionally, emerging nations like Pakistan, where the economy is struggling and showing negative growth, place a higher emphasis on compensation. (Bank, 2023). Similarly (Bibi, Pangil, Johari, Ahmad, & Perspectives, 2017) added that in Pakistan, salaries were one of the main factors in whether employees stayed or left the company because they were the most alluring aspect and kept them drawn to higher pay.

Numerous empirical research has looked at the relationship between compensation structures and organizational commitment. (Kee, bin Ahmad, & Abdullah, 2016; Llanos, Bin Ahmad, & Review, 2016; Nawab, Bhatti, Science, 2011; Suryani, Gama, Parwita, & Review, 2019). The study was done by (Nawab et al., 2011) that study the influence of employee compensation on organizational commitment and job satisfaction in the academic sector of Pakistan. The study's findings show a favorable relationship between organizational commitment and employee remuneration. Employees who have organizational commitment view the growth and sustainability of the company as a shared responsibility. Research conducted by (Sari, Dewi, & Research, 2020) on 126 employees of PT. Bali Ocean Magic stated that organizational commitment has a significant positive effect on employee retention.

Hypothesis
H1: Compensation (Job Based Pay) has a significant positive relationship with Employee Retention.
H2: Compensation (Job Based Pay) has a significant positive relationship with Normative Commitment.
H3: Compensation (Job Based Pay) has a significant positive relationship with Job Embeddedness.
H4: Normative Commitment has a significant positive relationship with Employee Retention.
H5: Job Embeddedness has a significant positive relationship with Employee Retention.
H6: Normative Commitment mediates the relationship between Compensation (Job Based Pay) and Employee Retention.
H7: Job Embeddedness mediates the relationship between Compensation (Job Based Pay) and Employee Retention.

Methodology
Research Design and Data Collection
In this particular study's framework, data were gathered from 400 employees working in the telecommunications sector of Pakistan. To accomplish this, a questionnaire was employed and disseminated to respondents through Google Forms, with the respondents being selected using a straightforward random sampling approach. A total of 286 completed questionnaires were returned, resulting in a response rate of 71.5%. Among the respondents, 23% belonged to the administrative service, 24% were from the professional and technical service, 25% were from the sub-professional service, 16% were from the clerical and accounts service, and the remaining 12% represented class 4 employees. The questionnaires were initially prepared in the English language and subsequently translated into the local language, 'Urdu'. Data collection through the questionnaires took place during the months of April and May in the year 2023.
Measurement Scale

We administered a questionnaire that consisted of the following components: Compensation (Job Based Pay) with six items, Commitment (Normative) with six items, Employee Retention with eleven items, and Job Embeddedness with seven items. Respondents were required to express their level of agreement or disagreement with these items, and all responses were recorded on a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). For a detailed breakdown of the questionnaire items, please refer to Table 1, and for information regarding Factor loadings, and scale reliability statistics such as Alpha, rho_c, AVE, and VIF values, please consult Table 2.

Table 1
Details/breakdown of questionnaire items

<table>
<thead>
<tr>
<th>Construct/Variables</th>
<th>Items of Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation (Job-based pay) (Lambert &amp; Hogan, 2009)</td>
<td>C-1: Is there an effective compensation system in place at your organization? C-2: Is the internal salary structure fair and equitable for all employees? C-3: Is the external salary competitiveness of your organization satisfactory in your industry or market? C-4: Does your salary accurately reflect your job performance? C-5: Does your salary serve as a motivating factor for better performance? C-6: Is your salary aligned with the cost of living?</td>
</tr>
<tr>
<td>Commitment (Normative) (Meyer, Stanley, Herscovitch, &amp; Topolnytsky, 2002)</td>
<td>NC-1: Do you feel a sense of commitment to remain with your current employer? NC-2: Even if it were in your best interest, do you believe it would be morally acceptable to leave your organization at this time? NC-3: Would you experience guilt if you were to leave your organization now? NC-4: Do you believe your organization has earned your loyalty? NC-5: Do you have a moral obligation to your colleagues or peers that would prevent you from leaving your organization right now? NC-6: Do you feel a strong sense of indebtedness to your organization as a dedicated employee?</td>
</tr>
<tr>
<td>Employee Retention (Iftikhar, Ziaullah, &amp; Hayyat, 2023)</td>
<td>ER-1: Do you have any plans to seek employment with another company within the next three years? ER-2: Are you satisfied with your current work within this organization? ER-3: If you were considering a different job or role, would you first explore opportunities within this company? ER-4: Do you see a long-term future for yourself within this company? ER-5: Does the choice between working for this company or another matter as long as you have employment? ER-6: If the decision were entirely yours, would you definitely continue working for this company for the next five years? ER-7: If you had the chance to start anew, would you opt to work for a different company? ER-8: If you received an appealing job offer from another company, would you accept it? ER-9: Is the work you do particularly meaningful to you? ER-10: Do you have a strong affinity for working at this company? ER-11: Have you explored job opportunities with other companies in the past?</td>
</tr>
<tr>
<td>Job Embeddedness (Iftikhar et al., 2023)</td>
<td>JE-1: Do you feel a sense of attachment to your organization? JE-2: Would it be challenging for you to depart from this organization if the need arose? JE-3: Do you feel deeply entrenched in this organization, making it difficult to leave? JE-4: Do you sense a strong bond or tie to your organization? JE-5: Would it be a straightforward decision for you to leave the organization where you currently work?</td>
</tr>
</tbody>
</table>
Construct/ Variables | Items of Questionnaire
--- | ---
JE-6: Do you believe it would be uncomplicated for you to part ways with this organization?
JE-7: Do you feel a strong and enduring connection to this organization?

Construct Validity and Reliability

The reliability and validity of the 30 questionnaire items were assessed using PLS-SEM analysis. The resulting insights were utilized to interpret the questionnaire and make enhancements. The analysis indicated that out of the 30 recommended questions, 16 were pivotal for improving the precision of the indicators within the tested model. While it's possible for a single-item measure to capture the essence of the constructs under study, as suggested by (Cheah et al., 2018), it may come with limitations in terms of criterion validity, as noted by (Sarstedt, Ringle, & Hair, 2021). Nonetheless, a multi-item measure could also be suitable and potentially offer more advantages in this context.

Table 2 provides an overview of the reliability assessment for the variables in this study, with alpha values falling within the range of .717 to .845. These values can be deemed satisfactory. Additionally, the table displays factor loadings, which range from 0.727 to 0.869, indicating favorable results. Furthermore, the average variance was extracted (AVE).

![Figure 1](https://example.com/figure1.png)

Values surpass the established threshold of .5, affirming the reliability and validity of the measurement scales. Moreover, the VIF (Variance Inflation Factor) values remain below .3, aligning with the accepted standards for measurement scale validity and reliability.

Table 2

<table>
<thead>
<tr>
<th>Constructs &amp; Indicators</th>
<th>Factor Loadings</th>
<th>Alpha</th>
<th>Rho_c</th>
<th>AVE</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>C01 &lt;- Compensation</td>
<td>0.727</td>
<td></td>
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<tr>
<td>C02 &lt;- Compensation</td>
<td>0.733</td>
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<tr>
<td>C03 &lt;- Compensation</td>
<td>0.808</td>
<td>0.839</td>
<td>0.887</td>
<td>0.611</td>
<td>2.242</td>
</tr>
<tr>
<td>C04 &lt;- Compensation</td>
<td>0.783</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>C05 &lt;- Compensation</td>
<td>0.850</td>
<td></td>
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</tr>
<tr>
<td>ER1 &lt;- Employee Retention</td>
<td>0.827</td>
<td></td>
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<tr>
<td>ER2 &lt;- Employee Retention</td>
<td>0.869</td>
<td>0.802</td>
<td>0.883</td>
<td>0.716</td>
<td>1.785</td>
</tr>
<tr>
<td>ER3 &lt;- Employee Retention</td>
<td>0.842</td>
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</table>
Discriminant Validity

Discriminant validity was rigorously assessed through a three-step process:

1. Firstly, the Fornell Larcker Criterion was utilized. This criterion involves evaluating the square root of the Average Variance Extracted (AVE) for each construct and comparing it with the correlations between that construct and others in the model. The criterion stipulates that the square root of AVE should be greater than the inter-correlations, indicating that a construct can explain more variance with its own items than with items from other constructs. Our results, displayed in Table 3, demonstrated that the square root of AVE for each construct exceeded the respective inter-correlations, affirming their discriminant validity. This validation, combined with reliability assessments, enhances the credibility of the measurement model.

2. Secondly, we employed the Cross-Loading Matrix to assess discriminant validity. This method requires that item loadings on one construct should be higher than their loadings on other constructs, confirming that the items effectively measure the intended construct (Straub, Boudreau, & Gefen, 2004). In our study, as depicted in Table 3, the Cross-Loading technique validated the intended measurements, as all items displayed their highest loadings on the corresponding constructs.

3. Thirdly, we utilized the HTMT (Heterotrait-Monotrait) ratio, known for its superiority over cross-loadings and the Fornell Larcker criterion. To adhere to this method, (Henseler, Ringle, & Sarstedt, 2015) recommended keeping HTMT values below 0.90. In our study, the highest HTMT value was determined to be 0.849 (Table 3), which comfortably met the discriminant validity criterion, as it fell below the specified threshold of 0.90.

Table 2
Discriminant validity–(fornell larcker criterion), cross-loading, HTMT

<table>
<thead>
<tr>
<th>Constructs &amp; Indicators</th>
<th>Factor Loadings</th>
<th>Alpha</th>
<th>Rho_c</th>
<th>AVE</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>JE1 &lt;- Job Embeddedness</td>
<td>0.814</td>
<td></td>
<td>0.845</td>
<td>0.890</td>
<td>0.618</td>
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<tr>
<td>JE2 &lt;- Job Embeddedness</td>
<td>0.776</td>
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<tr>
<td>JE3 &lt;- Job Embeddedness</td>
<td>0.774</td>
<td>0.845</td>
<td>0.890</td>
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<tr>
<td>JE4 &lt;- Job Embeddedness</td>
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<td>JE5 &lt;- Job Embeddedness</td>
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<tr>
<td>NC1 &lt;- Normative Commitment</td>
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<tr>
<td>NC2 &lt;- Normative Commitment</td>
<td>0.799</td>
<td>0.717</td>
<td>0.814</td>
<td>0.639</td>
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<td>NC3 &lt;- Normative Commitment</td>
<td>0.851</td>
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</tbody>
</table>

### Table 2
Discriminant validity–(fornell larcker criterion), cross-loading, HTMT

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Co</th>
<th>ER</th>
<th>JE</th>
<th>NC</th>
<th>Co1</th>
<th>Co2</th>
<th>Co3</th>
<th>Co4</th>
<th>Co5</th>
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<th>ER3</th>
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<th>JE2</th>
<th>JE3</th>
<th>JE4</th>
<th>JE5</th>
<th>NC1</th>
<th>NC2</th>
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</thead>
<tbody>
<tr>
<td>Compensation (Job-based pay)</td>
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<td>0.727</td>
<td>0.427</td>
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<td>0.594</td>
<td>0.536</td>
<td>0.776</td>
<td>0.640</td>
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<td>0.594</td>
<td>0.594</td>
<td>0.814</td>
<td>0.640</td>
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<tr>
<td>Commitment (Normative)</td>
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<td>0.691</td>
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<td>Heterotrait Monotrait Ratio</td>
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<td>Constructs</td>
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<tr>
<td>Employee Retention</td>
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<tr>
<td>Job Embeddedness</td>
<td>0.688</td>
<td>0.638</td>
<td>0.717</td>
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<tr>
<td>Commitment (Normative)</td>
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SEM Analysis (Structural Model Assessment)
In this research, we conducted an in-depth analysis of the established measurement model. Subsequently, we comprehensively assessed the validity of the structural model using key criteria, including the path coefficient ($\beta$), the coefficient of determination for endogenous variables ($R^2$) and effect size ($F^2$) and these approaches align with the guidelines provided by researchers such as (Chin, 2009; Götz, Liehr–Gobbers, & Krafft, 2009; Henseler, Ringle, & Sinkovics, 2009; Tenenhaus, Vinzi, Chatelin, & Lauro, 2005).

R-Square, F-Square & Model Fitness Analysis
Coefficient of Determination ($R^2$)
Table no. 4 provides information about the R-squared values for various factors related to employee turnover which is used and refers to a statistical measure that indicates the proportion of the variance in one variable that can be explained by one or more independent variables (Klarner & Raisch, 2013). The R-squared values reported in the table adhere to commonly accepted standards in statistical analysis. These values fall within the expected ranges of 0.02 (indicating weak explanatory power), 0.13 (suggesting moderate explanatory power), and 0.26 (signifying substantial explanatory power), as established in existing literature (Cohen, Cohen, West, & Aiken, 2013). In the context of this study, the R-squared values of 1% and 49% indicate a reasonably acceptable level of predictive capability within empirical research, as previously demonstrated (Bhunia, 2013; Gaur & Gaur, 2006).

- **Employee Retention** ($R^2 = 0.243$): representing approximately 24.3% of the variance in employee turnover is explained.
- **Job Embeddedness** ($R^2 = 0.577$): Job embeddedness appears to have a higher explanatory power with an R-squared value of 0.577.
- **Normative Commitment** ($R^2 = 0.002$): Normative commitment, on the other hand, has a very low R-squared value of 0.002. This indicates that only an extremely small proportion (0.2%) of the variance in employee turnover can be explained by normative commitment.

Effect Size ($F^2$)
Table no. 4 represents the values of the F-square statistic for various factors related to Compensation (Job-Based Pay) on employee retention, job embeddedness, and normative commitment and it is used to measure the proportion of variance explained by one variable with respect to another variable in an analysis of variance (ANOVA) context. Effect sizes are categorized as small (0.00 to 0.15), medium (0.16 to 0.35), or large (above 0.35) (Sarstedt et al., 2021).

- **Compensation (Job Based Pay) vs. Employee Retention** ($F^2 = 0.236$): The F-square value of 0.236 indicates that approximately 23.6% of the variance in employee retention can be attributed to compensation. In other words, compensation has a moderating effect on explaining the differences in employee retention.
- **Compensation (Job Based Pay) vs. Job Embeddedness** ($F^2 = 1.362$): The F-square value of 1.362 is relatively high, suggesting that compensation has a substantial impact on job embeddedness. It explains a significant portion (about 136.2%) of the variance in job embeddedness. This implies that compensation plays a significant role in influencing job embeddedness.
- **Compensation (Job Based Pay) vs. Normative Commitment** ($F^2 = 0.023$): The F-square value of 0.023 is relatively low, indicating that compensation has a weak effect on explaining the variance in normative commitment. Only a small proportion (about 2.3%) of the variance in normative commitment can be attributed to compensation.
- **Employee Retention vs. Job Embeddedness** ($F^2 = 0.354$): The F-square value of 0.354 suggests that job embeddedness explains a moderate amount (about 35.4%) of the variance in employee turnover. This implies that job embeddedness has a moderate effect on predicting employee turnover.
- **Employee Retention vs. Normative Commitment** ($F^2 = 0.317$): The F-square value of 0.317 indicates that normative commitment explains a moderate amount (about 31.7%) of the variance in employee turnover. Normative commitment has a reasonable influence on predicting employee turnover.
Model Fitness Analysis

Table no. 4 narrates the statistics related to the model fit of a statistical or structural model in the field of structural equation modeling (Teclemichael Tessema & Soeters) to assess how well the model fits the observed data.

- **SRMR (Standardized Root Mean Square Residual): 0.073**: SRMR is a measure of the average standardized discrepancy between the observed and predicted covariance matrices. A lower SRMR indicates a better model fit. In this case, the SRMR value of 0.073 suggests a relatively good fit, as it is below some commonly used threshold values for an acceptable fit.

- **d_ULS (Unweighted Least Squares): 0.724**: d_ULS represents a measure of the goodness of fit based on unweighted least squares estimation. Typically, lower values of d_ULS indicate a better fit. The value of 0.724 suggests a reasonably good fit, but it should be interpreted in the context of other fit indices.

- **d_G (Goodness-of-Fit Index): 0.295**: d_G is another goodness-of-fit index that measures how well the model reproduces the sample covariances. Like d_ULS, lower values of d_G indicate a better fit. The value of 0.295 indicates a reasonably good fit, but again, it should be considered alongside other fit statistics.

- **Chi-square: 497.915**: Chi-square ($\chi^2$) is a statistical test that assesses the difference between the observed and expected data in the model. In SEM, a smaller chi-square value relative to the degrees of freedom is indicative of a better fit. The chi-square value of 497.915 suggests that there are some discrepancies between the model and the observed data, but this should be interpreted along with other fit indices.

- **NFI (Normed Fit Index): 0.768**: NFI is a goodness-of-fit index that measures the proportion of the improvement in fit by the model relative to the improvement that could be achieved by a null model. Values of NFI range from 0 to 1, with higher values indicating better fit. An NFI value of 0.768 suggests a relatively good fit, but like other indices, it should be assessed in conjunction with other fit measures.

### Table 4

<table>
<thead>
<tr>
<th>Construct</th>
<th>Coefficient of Determination (R²)</th>
<th>Effect Size ($F^2$)</th>
<th>Model Fitness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R²</td>
<td>Constructs</td>
<td>F²</td>
</tr>
<tr>
<td>Employee Retention</td>
<td>0.243</td>
<td>Compensation (Job Based Pay) Vs. Employee Retention</td>
<td>0.236</td>
</tr>
<tr>
<td>Job Embeddedness</td>
<td>0.577</td>
<td>Compensation (Job Based Pay) Vs. Job Embeddedness</td>
<td>1.362</td>
</tr>
<tr>
<td>Normative Commitment</td>
<td>0.002</td>
<td>Compensation (Job Based Pay) Vs. Normative Commitment</td>
<td>0.023</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Employee Retention Vs. Job Embeddedness</td>
<td>0.354</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Employee Retention Vs. Normative Commitment</td>
<td>0.317</td>
</tr>
</tbody>
</table>

### SMA –Direct Effects Analysis –– Model I

The results of a hypothesis test utilizing bootstrapping and structural equation modeling (Teclemichael Tessema & Soeters) analysis are shown in Table 5. The purpose of this analysis is to investigate the connections between distinct variables. As an illustration, the beta coefficient (0.454) in Hypothesis 1 denotes the estimated impact of compensation (job-based pay) on forecasting employee retention. According to this, companies may be able to boost employee retention by about 45.4% by using compensation (job-based pay). Statistical evidence also backs up this claim, with a T-statistic value of
2.654 and a corresponding P-value of 0.003 supporting the claim. The low P-value suggests that a random occurrence of the observed association between Compensation (Job Based Pay) and Employee Retention is implausible (Osibanjo, Adeniji, Falola, & Heirsmac, 2014). Consequently, we can say that the link is statistically significant.

In Hypothesis 2, we looked at how compensation (job-based pay) affects job embedding. The findings demonstrated that there is a positive correlation between compensation (job-based pay) and job embeddedness, as indicated by the Beta coefficient (0.759). More specifically, Job Embeddedness is anticipated to rise by 0.759 units for every unit increase in Compensation (Job Based Pay). The T-Statistics, which produced a high value of 24.451, provides significant evidence for this link. Additionally, the extremely low P-value of 0.000 shows that this association is highly statistically significant and not just a coincidence. The study by (Ferdian, Abrian, Suyuthie, Kasmita, & Sinensis, 2022); and Khattak et al. (2012) demonstrates that firms that use remuneration as an HR tool can increase employees' levels of job embeddedness. These findings are consistent with other research, such as that study. Employee loyalty and performance typically increase when they are more positively integrated into the company.

It was discovered during the analysis of Hypothesis 3 that remuneration, specifically Job-Based Pay, has very little or no effect on Normative Commitment. The poor association, as evidenced by the beta values of 0.041, led to the rejection of hypothesis H3. The survey respondents' viewpoint, which was that compensation has little effect on our normative commitments, had an impact on this choice. Furthermore, the data did not approach statistical significance in this situation, as shown by the t-statistics of 0.675 and the accompanying p-value of 0.499, which supported the rejection of the hypothesis. The results are also supported by the study of Nurlina (2022) in which he has found that loyalty and devotion to an organization are frequently linked to normative commitment. The compatibility of one's ideals with the mission and culture of the organization is one inherent component that contributes to this emotional connection. Being an extrinsic component, compensation may not have a substantial impact on these internal motivators.

While analyzing the relationship among variables it was hypothesized through Hypothesis 4, that there is a strong positive effect of Job Embeddedness in the retention of employees, and the results revealed after applying SEM-Bootstrapping analysis that job embeddedness with beta values of 0.590 showed that 59% retention of employees can be achieved through job embeddedness. With t-stats @ 6.691 and P-values 0.000, H5 was accepted and supported by the studies of (Sindhu, Lakhera, Karthik, Murthy, & Padma, 2023) in which research states that the trio of criteria, including job embeddedness, have an effect on employee retention and in light of the employee's ties to the business and the community, they are consequently classified as links, fit, and sacrifice. Job embeddedness turns out to be a significant factor in determining employee retention.

In order the analyze the effects of Normative Commitment over Employee Retention, under hypothesis 5 the values of beta (0.491) showed a positive effect of 49% as a changing effect due to a change in normative commitment resulting in an increase in Employee Retention. The t statistics (10.605) is relatively high and P values (0.000) indicate that this relationship is highly statistically significant. The results are also supported by previous studies (Kaban & Kulsum, 2023) in which it was found that stronger staff retention rates are the result of normative commitment, which is the driving factor.

**Table 5**

**PLS-SEM (structural measurement model assessment - hypothesis testing - model I)**

<table>
<thead>
<tr>
<th>Hypothesis &amp; Path</th>
<th>Beta</th>
<th>T</th>
<th>P</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Compensation -&gt; Employee _Retention</td>
<td>0.454</td>
<td>2.654</td>
<td>0.003</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2: Compensation -&gt; Job _Embeddedness</td>
<td>0.759</td>
<td>24.451</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H3: Compensation -&gt; Normative _Commitment</td>
<td>0.041</td>
<td>0.675</td>
<td>0.499</td>
<td>Rejected</td>
</tr>
<tr>
<td>H4: Job _Embeddedness -&gt; Employee _Retention</td>
<td>0.590</td>
<td>6.691</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5: Normative _Commitment -&gt; Employee _Retention</td>
<td>0.491</td>
<td>10.605</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
SMA – Indirect Effect (Mediation Analysis Model – II)

(Baron & Kenny, 1986); Sobel (1982) presented the conventional approach for examining mediation effects in regression analysis. However as suggested by Hair, Ringle, and Sarstedt (2011); Henseler (2010); MacKinnon, Lockwood, and Williams (2004) scholars have presented alternate strategies to address this issue. Iacobucci, Saldanha, and Deng (2007) presented a different approach that incorporates both endogenous and exogenous factors and uses PLS-SEM to examine mediating effects.

Table 6
Mediation analysis model –II

<table>
<thead>
<tr>
<th>Total Effect</th>
<th>PLS-SEM (Bootstrapping) Mediation Analysis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path</td>
<td>Total indirect Effect</td>
<td>Specific Indirect Effects</td>
</tr>
<tr>
<td>Co -&gt; ER</td>
<td>0.454</td>
<td>2.654</td>
</tr>
<tr>
<td></td>
<td>Co -&gt; ER</td>
<td>0.225</td>
</tr>
<tr>
<td></td>
<td>Co -&gt; NC -&gt; ER</td>
<td>-0.220</td>
</tr>
<tr>
<td></td>
<td>Co -&gt; NC</td>
<td>-0.491</td>
</tr>
<tr>
<td></td>
<td>Co -&gt; ER</td>
<td>0.545</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.077</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Accepted</td>
</tr>
</tbody>
</table>

A nonparametric method known as bootstrapping was used to forecast new trends and examine the effects of particular paths. In order to determine the statistical importance of various variables, such as Path Coefficient, Direct Effects, Particular Indirect Effects, and Total Effects, bootstrapping is used. Additionally, it uses 10,000 bootstrap samples to generate a Lower-Level Confidence Interval (LLCI) at 5% and an Upper-Level Confidence Interval (ULCI) at 95%. The "Bias-Corrected and accelerated (BCa) method with a bootstrap of two-tailed test and under type with parallel processing," as described by Hair Jr. et al. (2021) was used in this procedure.

Hypothesis 6 (H6) shows the results, that Compensation (Job Based Pay) has a significantly negative effect on employee retention through normative commitment as normative commitment relates to the intrinsic motivation factor (Kaban & Kulsum, 2023) and it has no link with compensation (Job Based Pay) which refers to extrinsic motivational factor. Therefore, a negative specific effect of Beta -0.220, t 0.467, P 0.501, LLCI -0.079 & ULCI 0.440 indicates that normative commitment has no mediation role in the relationship of Compensation (Job Based Pay) and Employee Retention.

Hypothesis 7 (H7) was processed in the same manner as H6, and the extracted results revealed from smartPLS-4 reflected the scenario with Beta = 0.545, T=8.679, P<0.000 that organizations structure its compensation, particularly when it is closely tied to the specific job roles and responsibilities (Job-Based Pay), plays a vital role in influencing whether employees choose to stay with the company or leave (Asaari, Desa, Subramaniam, & Management, 2019; Diaye, Lasram, & Pekovic, 2023; Gerhart & Bretz Jr, 1994; Mohaimen, Saad, & Huq, 2023; Susanto, 2022). This impact on employee retention is primarily mediated or channeled through the concept of job embeddedness.

Discussion

Employee retention has always been a critical aspect of organizational success. Organizations consistently exert effort to retain their valuable human capital. The movement of intellectual capital, reflected in employee turnover, leads to substantial costs. Therefore, the effective implementation of HR policies draws the attention of management, ensuring the maintenance of high standards within the organization. Compensation management, particularly concerning job-based pay, represents a pivotal factor that can determine whether employees choose to remain within their current compensation range or explore better opportunities elsewhere. Organizations offering market-competitive compensation packages can retain their employees, albeit not always in the long term.
Navigating the Brain Drain Challenge: The Role of Compensation, Job Embeddedness, and Commitment in Employee Retention in Pakistan’s Telecom Sector

Organizations that offer highly competitive compensation packages can effectively attract a skilled workforce and retain these talents by fostering their commitment levels and addressing various factors that enhance job embeddedness (Iftikhar et al., 2023). The telecom sector in Pakistan is grappling with a significant employee retention challenge, manifested in the rising statistics of employee turnover, often referred to as brain drain. According to statistical reports published by the Bureau of Emigration & Overseas Employment – Government of Pakistan for the year 2023, up until August 2023, approximately 508,843 technicians have left Pakistan within a year (GOP, 2023). This substantial exodus of technical professionals is not only a cause for concern regarding the future but also poses a serious threat to existing organizations striving to retain their human capital for sustainability (Schober, 2023).

The sustainability of these organizations hinges on the availability of a technical workforce, and to ensure this, they are developing compensation policies that are comparatively competitive. This approach aims not only to foster higher levels of job embeddedness but also to transform this job embeddedness into normative commitment. Such a transformation is deeply linked to the emotions of employees who possess strong loyalty toward the organization.

Findings
The findings of this research gathered through data collection, have unveiled a crucial fact: compensation directly tied to job-based tasks or job-based pay, serves as the decisive factor for the majority of a technical workforce when determining whether to remain in their current position or seek better opportunities elsewhere. Insights from the telecom sector workers in Pakistan emphasize that they receive significantly lower compensation packages compared to international standards, despite possessing similar skill levels. Consequently, organizations in Pakistan struggle to retain their technical workforce.

In contrast, countries like Saudi Arabia offer a minimum wage rate in 2023 that is 90% higher (4000 Saudi Riyal, equivalent to 314,935.33 PKR) than Pakistan's minimum wage rate of 32000 PKR. This stark disparity in compensation (job-based pay) contributes to the challenges faced by organizations in Pakistan in controlling their turnover rates. Consequently, the levels of job embeddedness and commitment among employees are diminishing steadily.

Recommendations
A number of recommendations that offer guidance for decision-makers and management of the organizations can be made based on the discussion and findings of this research. Thirdly, businesses need to spend money on training initiatives. Organizations might invest in skill development programs in addition to pay raises to improve the technical workforce’s capabilities. Employee retention is higher when they perceive opportunities for learning and advancement. Fourth, businesses must introduce job embedding initiatives that create links between workers, the community, and the organization. These initiatives can strengthen staff loyalty and decrease turnover. Finally, they need to reward and recognize top-performing workers. By rewarding their efforts with performance-based bonuses or incentives, you may increase employee loyalty and job satisfaction.

Conclusion
In conclusion, employee retention is an essential component in ensuring the viability and profitability of businesses, particularly in Pakistan's telecom industry. The results of this study highlight the important role that money, especially job-based pay, plays in influencing technical professionals' decisions about whether to stay or look for better chances elsewhere. The local telecom industry has a sizable difficulty as a result of the brain drain phenomenon, which is shown in the significant number of technicians departing Pakistan in search of better-paying opportunities abroad. The industry’s organizations are at risk of dying out because they are unable to maintain highly qualified technical staff. Organizations must reexamine their compensation plans to make sure they are competitive with global norms in order to handle these issues and improve retention. Higher levels of commitment and job retention may also result from investments in skill development, the implementation of programs to immerse employees in their jobs, and the recognition of employee performance.
Limitations & Future Research Directions

Despite the fact that this study sheds light on the crucial problem of employee retention in Pakistan’s telecom industry, it is important to recognize its limitations. Since the study’s primary focus is Pakistan’s telecom industry, its findings might not be directly applicable to other sectors or geographical areas. The information used in this study is based on statistics that are already available and survey results. These data sources’ precision and comprehensiveness might have certain restrictions. Although relationships between pay, job embedding, and employee retention have been found, proving a causal relationship may call for more investigation and testing. The study did not examine external variables that may also affect employee retention, such as prevailing economic conditions, political stability, or worldwide market trends. The study is based on data that is accessible through August 2023. The findings might not account for developments that have occurred since this time. Future studies should delve further into these restrictions to offer a more thorough understanding of personnel retention dynamics in the Pakistani telecom industry and design-focused improvement initiatives.

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Navigating the Brain Drain Challenge: The Role of Compensation, Job Embeddedness, and Commitment in Employee Retention in Pakistan's Telecom Sector


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