



(RESEARCH ARTICLE)



Mediating role of job satisfaction in the relationship between job characteristics and organizational commitment among pharmaceutical sales professionals

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Abstract

In sales-focused firms, worker views like job satisfaction and organization dedication are important factors that determine workforce stability, performance sustainability and retention. Job design is a crucial psychological component that influences behaviour in pharmaceutical field operations, where medical sales people work under target pressure, travel demands and ongoing performance evaluations. This study examines the effects of five fundamental job dimensions autonomy, task importance, task identity, skill variety and feedback on fulfilment with work and commitment to organizational goals among 310 medical sales agents in the Nagapattinam district. It is based on the Job Characteristics Theory. According to the study, workers initially assess job attributes cognitively before become emotionally attached to the company. A structured questionnaire was used to gather primary data and multivariate statistical methods such as Cronbach's Alpha, Principal Component Analysis (PCA), One-Way ANOVA, Binary Logistic Regression, Canonical Correlation Analysis and Path Analysis were used for analysis. For autonomy ($\alpha = 0.733$), skill diversity ($\alpha = 0.668$) and task relevance ($\alpha = 0.638$), reliability analysis revealed good consistency; however, feedback indicated inferior consistency ($\alpha = 0.379$). The overall dependability of the instrument was $\alpha = 0.737$. In contrast to organizational commitment ($T^2 = 90.310$; $F = 22.358$; $p < 0.001$), which showed more consistency ($\alpha = 0.701$), job satisfaction showed significant variance ($T^2 = 218.851$; $F = 54.182$; $p < 0.001$). Autonomy was the most predictive of the job aspects ($F = 45.797$; variance = 84.984), followed by task significance ($F = 10.213$; variance = 41.254) and feedback ($F = 11.672$; variance = 47.147). The association between work dimensions and organizational commitment is mediated by job satisfaction, as demonstrated by the variability difference ($\Delta T^2 = 128.541$). According to the study's findings, job structure does not directly influence organizational commitment; rather, satisfaction does. Employee commitment is stabilized and satisfaction is greatly increased by enhancing decision autonomy, important task roles and reliable feedback systems. Therefore, in sales of medicines organizations, job design serves as a proactive human resources intervention to enhance loyalty and long-term performance sustainability.

Keywords: Job Dimensions; Job Satisfaction; Organizational Commitment; Medical Sales Representatives; Job Characteristics Theory; Employee Retention

1. Introduction

Rapid changes in the economy, technology and society have drastically changed the environment of employment in modern organizations, making worker responsibilities and expectations more complex [1]. Employee attitudes like job fulfilment and commitment to the company have become crucial factors in determining a company's efficiency and long-term achievement as businesses rely more and more upon human capital to maintain their market position [2]. A common definition of workplace fulfilment is an administrator's psychological and evaluation reaction regarding their work, which reflects how well work experiences match their preferences, values, including career goals [3]. Greater satisfaction with work is consistently linked to better performance on the job, lower absenteeism and less intention to leave across a variety of organizational contexts, according to empirical studies [4]. The dedication of an organization,

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which reflects a worker's emotional connection to the company and an eagerness to stay part of it, has a strong connection with work happiness [5]. Research on the behaviour of organizations and management of human resources has placed an important value on teamwork since it has been found to be an important indicator of staff continuation, job involvement and voluntary effort [6]. Organizations are finding it more and more difficult to maintain professionals with expertise in extremely competitive and changing business environments, which makes comprehension of fulfilment-driven processes more crucial [7]. The creation of jobs has drawn considerable research interest as a controlled organizational aspect that impacts staff member interactions, among the many precursors of satisfaction with work and commitment to the organization [8]. The Work Features Model describes how essential job characteristics autonomy, input, task identity, importance of the task and skill variety increase motivation internally by making performance more meaningful and enhancing employees' awareness of accountability and outcome understanding [9]. According to recent empirical research, occupations offering autonomy, relevant activity information and honest feedback greatly improve satisfaction among workers and fortify the commitment of the company [10]. Additionally, it has been demonstrated that work design features indirectly affect organizational outcomes by influencing workers' emotional well-being, involvement and motivation at work [11].

In careers that are focused on business development, where workers are subjected to extreme stress, constant communication with outside parties and sales objectives, these connections are especially important [12]. Since they are the main point of contact among businesses and medical experts, healthcare sales agents make up a strategically significant occupational category in the health care and pharmaceutical industries [13]. In addition to product expertise and communication abilities, their jobs need constant drive, flexibility and dedication in the face of challenging work environments [14]. However, if career dimensions are not set up correctly, healthcare salespeople may suffer from stress related to their jobs, role overload and lifestyle inequalities, which could negatively impact their commitment of the organization and satisfaction with work [15].

While organizational loyalty and job fulfilment have already been extensively studied in a variety of professions, there is still a dearth of empirical studies that investigates the impact of job factors on these variables among medical sales representatives, especially in developing nation as well as district-specific circumstances [16]. The vast majority of current research takes an extensive viewpoint regarding staff behaviour, providing little understanding of local sales positions that are subject to different requirements for success and job requirements [17]. In order to create evidence-based HR strategies that are suited to sales-driven work settings, it is imperative that this gap be filled [18]. With the aim of offering both theoretical and applied information to improve business efficiency and retain staff members, the current study fills this research gap by examining the impact of fundamental job aspects on satisfaction with employment and organizational commitment among medical sales representatives in the Nagapattinam district.

2. Literature review

The importance of labour-related factors in influencing attitudes of staff members, behaviour and ongoing relationships with the organization is continuously emphasized by recent studies. The Workplace Factors Concept is frequently used in current organizational behaviour research to describe the way structural elements of the workplace affect psychological effects including dedication to work, inspiration, as well as happiness at work [19]. By raising work interest, recognized management and an understanding of achievement outcomes, the five essential job dimensions skill variation, job identification, task importance, autonomy and feedback improve motivation through intrinsic factors, according to empirical evidence from a number of professional contexts [20]. Since confidence and task significance promote an impression of control, leadership and significance in work positions, studies in both the advertising and sales domains show that these factors have an especially strong effect on employee happiness within individuals in sales [21]. Although job importance supports individuals' subjective commitment to company achievement, liberty in performance-based contexts permits individual control of client contacts. Additionally, studies show that good feedback systems, particularly those pertaining to performance and supervision, enhance clarity about roles and self-worth, which in turn increases dedication within the company [22]. Employee happiness is being demonstrated to buffer the interaction among job structure and team dedication in pharmaceutical and healthcare marketing contexts, underscoring its crucial role in maintaining motivated and lowering intentions for turnover [23]. Affective commitment and enrichment job structure are positively correlated, according to study results done between 2021 and 2025, especially in high-pressure, goal-oriented occupations [24]. Since they have more opportunity to learn and feel like they have accomplished a task, salespeople with greater task identity and skill variety also tend to show better emotional commitment to their firms [25]. In outdoor positions where workers function with little oversight, autonomy is additionally a significant predictor of ongoing dedication [26]. Unique stresses like responsibility overload, travel obligations and a balance between work and life are highlighted in research on medical and sales of medicines. These stressors have a detrimental impact on job happiness unless they are counterbalanced by positive employment aspects [27]. It has been demonstrated that among medical marketing people, organized feedback, open performance reviews

and encouraging supervising reduce stress and improve standards of behaviour [28]. Furthermore, the association across organizational commitment and work characteristics is moderated by demographic variables such background, youth and professional background [29]. Research investigations investigating the combined effect of work characteristics on teamwork and job fulfilments in districts and developing-region environments are still lacking, although a wealth of literature [30]. Although their unique field-based and performance-oriented jobs, medical salespeople especially have not gotten much attention. In order to guide successful employee recruitment and retention initiatives, this gap highlights the necessity for context-specific studies that integrate work planning with happiness-dedication models. Table 1 shows the literature review.

Table 1 Literature review

Citation	Focus Area	Key Findings	Limitations	Implications for Present Study
[31]	Work design and employee engagement	Playful and enriched work design increases intrinsic motivation and engagement	Focused mainly on engagement rather than commitment	Supports examining how enriched job dimensions improve employee attitudes
[32]	Ambition, performance and organizational commitment	Ambition positively relates to performance and commitment under supportive conditions	Individual personality factors emphasized more than job structure	Indicates psychological attachment depends on motivational job environment
[33]	Pharmaceutical salesforce transformation	Changing role of medical sales representatives requires autonomy and adaptive work structure	Conceptual discussion with limited empirical testing	Confirms relevance of studying job dimensions in pharmaceutical sales context
[34]	Job autonomy and employee retention	Autonomy significantly improves retention and reduces turnover	IT-sector specific sample	Supports autonomy as a key predictor of satisfaction and commitment
[35]	Learning, benefits and job satisfaction	Satisfaction mediates the relationship between work factors and performance	Hospitality industry context	Supports mediating role of job satisfaction in Behavioural outcomes
[36]	Leadership style, job satisfaction and commitment	Job satisfaction significantly mediates organizational commitment	Leadership-focused rather than job design focused	Reinforces testing satisfaction as mediator between job dimensions and commitment
[37]	Job performance in healthcare occupations	Work conditions and role structure strongly influence employee attitudes	Broad healthcare professions, not sales-specific	Justifies studying work structure effects in healthcare-related sales roles

Overall, the reviewed literature highlights the necessity of adopting a comprehensive analytical framework that examines how individual job dimensions jointly influence job satisfaction and organizational commitment among medical sales representatives. Such an approach is essential for developing evidence-based job design, motivation and retention strategies tailored to the unique demands of sales-driven organizational environments, particularly within the pharmaceutical sector.

3. Proposed work

3.1. Cronbach's alpha — reliability of measurement scales

To determine if several observable indicators reflect a single latent construct, one can utilize Cronbach's Alpha, a coefficient that measures internal consistency. Whenever multiple questions are used to test a construct like autonomy

or feedback, the results ought to differ from one another. Covariance between the items in question, not separate variability, must account for a considerable portion of the variation in the overall score if the items are actually related.

Let X_{ij} denote the response of individual i to item j .

The composite score for a construct is:

$$T_i = \sum_{j=1}^k X_{ij} \dots \dots \dots (1)$$

Cronbach’s Alpha is defined as:

$$\alpha = \frac{k}{k-1} \left(1 - \frac{\sum_{j=1}^k \text{Var}(X_j)}{\text{Var}(T)} \right) \dots \dots \dots (2)$$

where

k = number of items

$\text{Var}(X_j)$ = variance of each item

$\text{Var}(T)$ = variance of total score

The variance of total score is

$$\text{Var}(T) = \sum \text{Var}(X_j) + 2 \sum \text{Cov}(X_i, X_j) \dots \dots \dots (3)$$

As a result, when inter-item correlation is high, the coefficient rises. As a result, alpha quantifies the percentage of variance in total scores that can be attributed to a shared underlying construct as opposed to random measurement errors. High internal consistency is shown by values near 1, which validate that the variables that were observed can be analysed further as a single scale.

3.2. Principal Component Analysis (PCA)

A collection of correlated variables is reduced to a fewer number of independent combinations of linearity known as principal components through the use of principal component analysis. The goal is to preserve information while representing maximal range using the fewest possible dimensions.

$$PC_m = a_{m1}X_1 + a_{m2}X_2 + \dots + a_{mp}X_p \dots \dots \dots (4)$$

where X_p are standardized variables and a_{mp} are component loadings.

The loadings are obtained by solving the eigenvalue equation:

$$| R - \lambda I | = 0 \dots \dots \dots (5)$$

where

R = correlation matrix

λ = eigenvalue

The proportion of explained variance is:

$$\text{Explained Variance} = \frac{\lambda_m}{\sum_{j=1}^p \lambda_j} \dots \dots \dots (6)$$

Components with eigenvalues greater than 1 retain more information than individual variables. Thus, PCA identifies latent structures and produces independent factor scores for further analysis.

3.3. One-way anova

A statistical inference test called One-Way ANOVA is utilized to assess whether the averages of several distinct categories differ in a way that is statistically significant. To assess how categorical factors affect a continuous variable, total variance is broken down into within-group and between-group components. The assumption of equality of variation and independent of samples are assumed by the approach. The F-ratio is used to compare explained variation to random error in order to assess significance.

The total variation is partitioned as

$$SS_T = SS_B + SS_W \dots\dots\dots (7)$$

Between-group variation:

$$SS_B = \sum_{j=1}^k n_j (\bar{X}_j - \bar{X})^2 \dots\dots\dots (8)$$

Within-group variation:

$$SS_W = \sum_{j=1}^k \sum_{i=1}^{n_j} (X_{ij} - \bar{X}_j)^2 \dots\dots\dots (9)$$

Mean squares:

$$MS_B = \frac{SS_B}{k-1}, MS_W = \frac{SS_W}{N-k} \dots\dots\dots (10)$$

F-ratio:

$$F = \frac{MS_B}{MS_W} \dots\dots\dots (11)$$

If between-group variance significantly exceeds within-group variance, the null hypothesis of equal means is rejected.

3.4. Binary logistic regression

A generalized linear modeling method called binary logistic regression is applied when the variable of interest is binary. It uses the logistic function to convert an exponential prediction into a limited possibility in order to estimate the likelihood of an occurrence. The coefficients of regression are interpreted using odds ratios and show changes in log-odds. Without the need for a typical distribution of predictors, variables are determined using maximum likelihood estimation.

$$\log \left(\frac{p}{1-p} \right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k \dots\dots\dots (12)$$

Probability:

$$p = \frac{e^Z}{1+e^Z} \dots\dots\dots (13)$$

Odds ratio:

$$OR = e^{\beta_k} \dots\dots\dots (14)$$

Parameters are estimated using maximum likelihood estimation:

$$L(\beta) = \prod p_i^{y_i} (1 - p_i)^{1-y_i} \dots\dots\dots (15)$$

This model estimates how predictor variables influence the likelihood of categorical outcomes.

3.5. Canonical Correlation Analysis (CCA)

A multivariate technique called canonical correlation analysis looks at two sets of variables' correlations at the same time. It creates weighted linear combinations of every set of parameters in order to optimize their shared variation. The method of Wilks' Lambda is used to test the magnitude of connection and canonical correlation coefficients are used to measure it. This method assesses multidimensional dependence as a whole instead of specific paired correlation.

$$U = a_1X_1 + a_2X_2 + \dots + a_pX_p \dots\dots\dots (16)$$

$$V = b_1Y_1 + b_2Y_2 + \dots + b_qY_q \dots\dots\dots (17)$$

Canonical correlation coefficient:

$$\rho = \frac{Cov(U,V)}{\sqrt{Var(U)Var(V)} \dots\dots\dots (18)$$

Significance test:

$$\Lambda = \prod(1 - \rho_i^2) \dots\dots\dots (19)$$

CCA determines the strength of association between two multivariate systems rather than individual variables.

3.6. Structural equation modeling / path analysis

A multidimensional causal modelling technique called structural equation modelling assesses several regression associations between variables at once. Within a proposed framework, path analysis is a specific instance that uses observed variables to quantify the impact of both direct and indirect variables. By breaking down the overall effect into direct and indirect components, the model evaluates mediation. Model-implied structures and observed covariance matrices are compared using goodness-of-fit indexes.

$$Y_1 = p_1X_1 + p_2X_2 + \dots + p_kX_k + \varepsilon_1 \dots\dots\dots (20)$$

$$Y_2 = q_1Y_1 + q_2X_1 + \dots + q_kX_k + \varepsilon_2 \dots\dots\dots (21)$$

Indirect effect:

$$IE = p_i \times q_1 \dots\dots\dots (22)$$

Total effect:

$$TE = DE + IE \dots\dots\dots (23)$$

Model fit indices:

$$\chi^2 = (N - 1)F_{ML} \dots\dots\dots (24)$$

$$RMSEA = \sqrt{\frac{\chi^2 - df}{df(N-1)}} \dots\dots\dots (25)$$

This framework quantifies both direct influence and mediated pathways within a system of relationships.

4. Results and discussion

4.1. Respondent profile

4.1.1. Classification of the Respondents on the Basis of their Age

Table 2 Classification of the Respondents on the Basis of their Age

Years	Frequency	Percent
Below 30 years	225	72.6
31-40 years	49	15.8
Above 40 years	36	11.6
Total	310	100.0

The distribution of ages shows that the workforce is primarily young. Out of 310 respondents, 225 employees (72.6%) were under 30, 49 of the workers (15.8%) were among 31 and 40, while just 36 staff members (11.6%) were above 40, according to table 2. Because pharmaceutical marketing positions are performance-oriented and movable, there is a large number of youthful representatives. Rewards and advancement in career typically are more important to younger workers than organizational loyalty. Therefore, rather than tenure security, motivational job qualities have a major role in retention in this industry.

4.1.2. Educational qualification of respondents

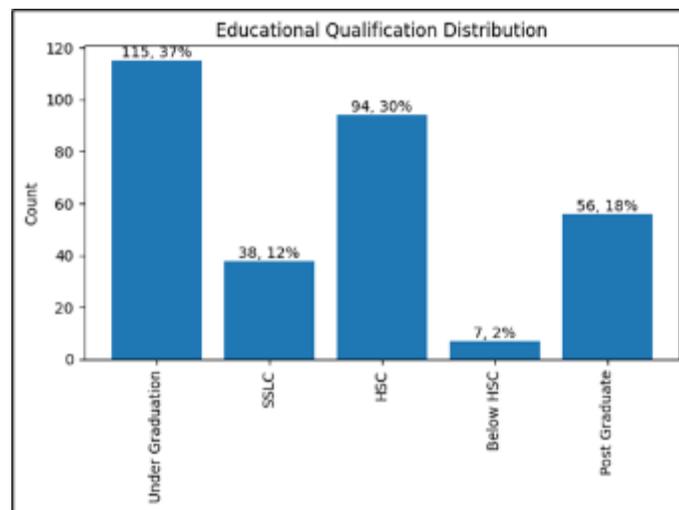


Figure 1 Histogram Shows the Distribution Respondents on the Basis of their Education

Figure 1 shows Histogram Shows the Distribution Respondents on the Basis of their Education. Basis of their Education According to the academic background, 56 of those surveyed (18.1%) had postgraduate degrees, 94 (30.3%) had finished higher secondary education and 115 (37.1%) had bachelor's degrees. This distribution suggests that instead of highly specialized specialists, the field generally draws people with a middle-level education. Persuasion and communication abilities are more important in medical sales than technical research knowledge. Therefore, it is anticipated that work design elements like autonomy and feedback will have a greater impact on worker fulfilment in this occupation than educational attainment.

4.1.3. Work experience in sales representative

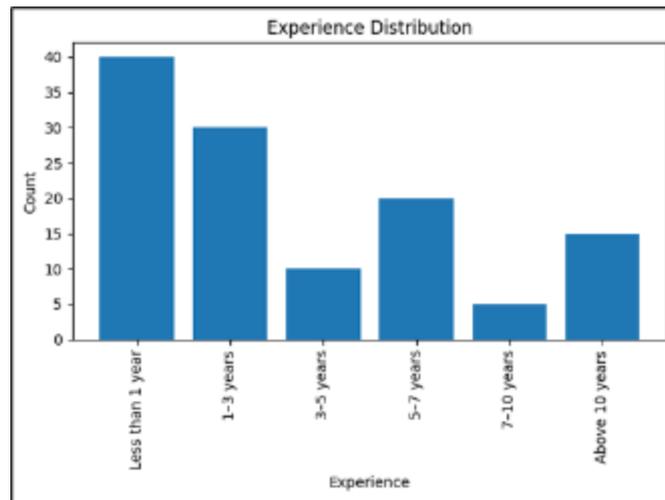


Figure 2 Work experience in sales representative

According to a review of work experience, 82 respondents (26.5%) had one to two years of experience, while 119 individuals (38.4%) had fewer than a year. Consequently, young-career members make up about two-thirds of the workforce (64.9%) and it is shown in figure 2. In the sales industry, a high staff turnover rate is indicated by the prevalence of low experience. Since early-tenured employees have not yet managed full sales cycles, they frequently feel a weaker task identity. As a result, employee fulfilment in this field progressively increases with position clarity and client familiarity.

4.1.4. MONTHLY INCOME AND ECONOMIC DEPENDENCY

Table 3 Classification of the Respondents on the basis of Monthly Income

Monthly Income	Frequency	Percent
Below Rs. 10000	66	21.3
Rs. 10001 to Rs. 15000	207	66.8
Rs. 15001 to Rs. 20000	21	6.8
Above Rs. 20000	16	5.2
Total	310	100.0

Table 3 depicts Classification of the Respondents on the basis of Monthly Income. With 207 of those surveyed (66.8%) receiving between ₹10,001 and ₹15,000, 66 (21.3%) earning less than ₹10,000 and just 16 (5.2%) earning more than ₹20,000, almost all of employees had moderate income levels. The earnings structure suggests a pay structure that is based on performance incentives. Due to the lack of other work options, a moderate wage may not by itself guarantee contentment but rather promotes dedication to sticking with it. Therefore, even in cases where employees have a moderate level of intrinsic satisfaction, economic dependency may keep them on board.

4.1.5. Marital status and family responsibility

Among the employees that responded, 107 (34.5%) were married and 203 (65.5%) were single. More job mobility and scheduling flexibility are suggested by the majority of unmarried representatives. While unmarried employees might look for possibilities to make job progress, married employees might have greater dedication to their careers because of their financial responsibilities. Consequently, work design probably has a greater impact on commitment to the organization in sales of medicines than family responsibilities.

4.2. One way analysis of overall job satisfaction

4.2.1. Overall level of job satisfaction

Table 4 Job Satisfaction Test Statistics

Statistic	Value	Statistic
Satisfaction Variability (T^2)	218.851	Very high variation among employees
F Statistic	54.182	Strong statistical difference
Significance	$p < 0.001$	Highly significant
Reliability (α)	0.488	Satisfaction unstable

Table 4 shows Job Satisfaction Test Statistics. Strong variation among employees is indicated by the ANOVA analysis, which displays a job contentment variability of 218.851 with $F = 54.182$ ($p < 0.001$). This indicates that rather than staying consistent, respondents' satisfaction levels vary greatly. The significant variance suggests that staff members are impacted by work features in different ways based on their perceptions. Thus, working conditions rather than employment itself are what give employees a sense of contentment. Therefore, rather than being driven by population homogeneity, job happiness is contextual and determined by work design.

4.2.2. Overall Level of Organizational Commitment

Table 5 Organizational Commitment Statistics

Category	Value	Interpretation
Commitment Variability (T^2)	90.310	Moderate variation
F Statistic	22.358	Statistically significant
Significance	$p < 0.001$	Reliable difference
Reliability (α)	0.701	Stable psychological attachment

Table 5 depicts Organizational Commitment Statistics. The variation for organizational commitment was 90.310 with $F = 22.358$ ($p < 0.001$).

Commitment exhibits less fluctuation than work satisfaction, suggesting a longer-lasting attachment to the company. Employee satisfaction varies more than commitment. This suggests that workers may stick with the company even if their level of satisfaction fluctuates. As a result, in addition to job satisfaction, external considerations like employment necessity also influence commitment.

4.2.3. Perception of Core Job Dimensions

When compared to task significance ($F = 10.213$) and feedback ($F = 11.672$), autonomy had the greatest statistical impact ($F = 45.797$). Perception strength was relatively lower for task identification ($F = 7.428$) and skill diversity ($F = 8.954$) and it is shown in figure 3. The significant disparity suggests that workers value autonomy in decision-making over clearly defined roles. The influence of autonomy is 5.1 times greater than that of skill variety and almost 4.3 times more than that of task identity. Therefore, medical representatives perceive control over work as the central motivational element. The figure therefore shows autonomy clearly dominating all job characteristics.

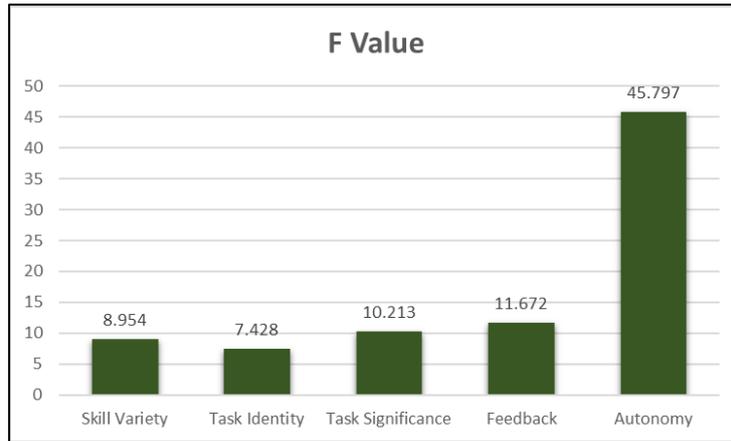


Figure 3 Perception Strength of Core Job Dimensions

4.2.4. Comparative Importance of Job Characteristics (Figure B2)

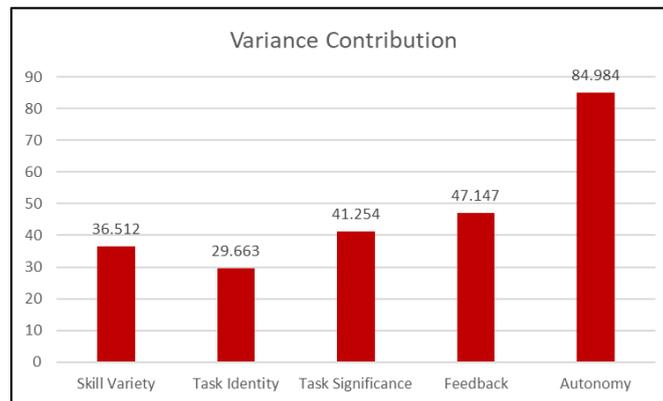


Figure 4 Comparative Variance Contribution of Job Characteristics

The overwhelming advantage of independence (84.984) over input (47.147) and significance of task (41.254) is further supported by variance contribution analysis. Comparatively less psychological variance is contributed by task identity (29.663) and skill variety (36.512) and it is shown in figure 4. About 2.07 times the variation of task importance and 2.86 times that of task specificity can be explained by autonomy. This suggests that routine work structure is not the primary factor influencing employee attitude formation, but rather perceived decision flexibility. Therefore, the primary motivating factor in pharmaceutical sales positions is freedom. Autonomy is depicted in the illustration as the primary behavioural element.

4.3. Reliability and measurement validation

4.3.1. Reliability of Job Dimension Scales

Table 6 Cronbach’s Alpha of Job Dimension Variables

Job Dimension	Reliability (α)	Consistency Level
Autonomy	0.733	Strong consistency
Skill Variety	0.668	Acceptable
Task Significance	0.638	Acceptable
Task Identity	0.541	Moderate
Feedback	0.379	Weak

Table 6 shows Cronbach’s Alpha of Job Dimension Variables. Adequate inner uniformity across job aspects is demonstrated by reliability ratings. Autonomy had the highest dependability ($\alpha = 0.733$), meaning that respondents consistently felt free to make decisions at work. Task importance ($\alpha = 0.638$) and variety of skills ($\alpha = 0.668$) exhibit considerable consistency. Employees’ the task’s identity ($\alpha = 0.541$) shows considerably less agreement. The dependability of feedback was the lowest ($\alpha = 0.379$), indicating that different stakeholders could interpret feedback on performance differently.

4.3.2. Reliability of Job Satisfaction and Commitment (Figure C1)

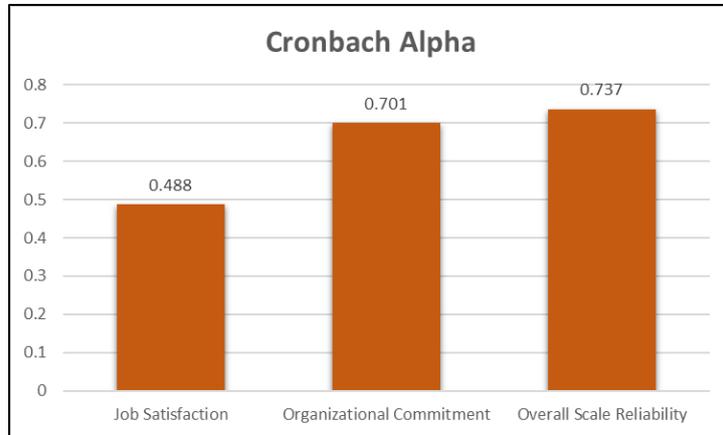


Figure 5 Reliability Comparison of Job Satisfaction and Commitment

Figure 5 depicts Reliability Comparison of Job Satisfaction and Commitment. A connection is more persistent than temporary satisfaction, as evidenced by organizational commitment’s greater dependability ($\alpha = 0.701$) compared to work satisfaction ($\alpha = 0.488$). While dedication grows through repeat encounters, happiness varies due to daily goals and field conditions. The validity gap of 0.213 indicates a significant behavioural variance in perception fluctuation and attitude stability. While pleasure is relatively consistent, dedication is closer to the steady construct when compared to total scale reliability ($\alpha = 0.737$). Greater internal uniformity of commitment impression is thus highlighted in the figure.

4.3.3. Adequacy of Measurement Instrument

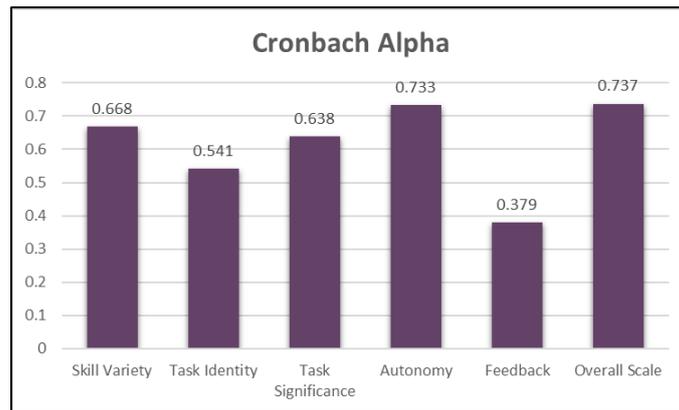


Figure 6 Hotelling’s T² Variance Contribution of Job Dimensions

Figure 6 shows Hotelling’s T² Variance Contribution of Job Dimensions. With a total scale dependability of $\alpha = 0.737$, it surpassed the permissible standard for behavioural research. This demonstrates that staff attitudes can always be measured by the questionnaire’s items taken together. Despite the low feedback dependability (0.379), overall scale stability was maintained by compensating other dimensions. For other inferential analyses like ANOVA, regression and route analysis, the tool is statistically reliable.

4.4. Factor Structure (Principal Component Analysis)

4.4.1. Strength of Autonomy and Task Significance:

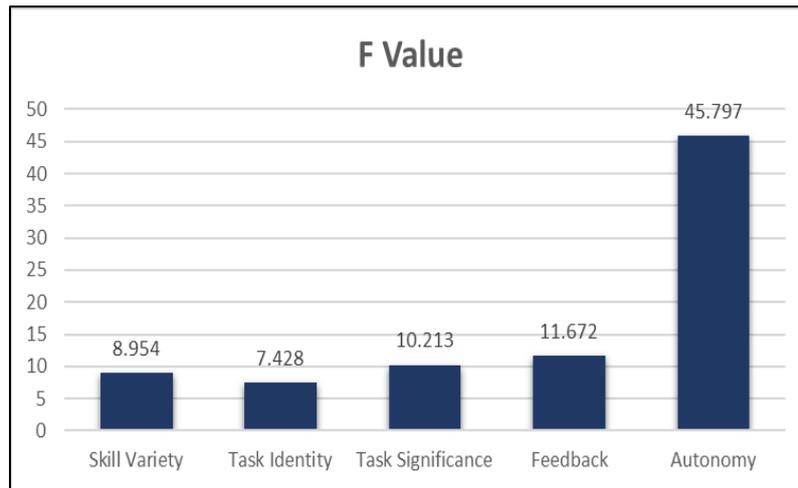


Figure 7 Strength of Autonomy and Task Significance

Figure 7 shows Strength of Autonomy and Task Significance. When contrasted with the significance of the task ($F = 10.213$) and reinforcement ($F = 11.672$), autonomy had the strongest statistical influence ($F = 45.797$). Strong perceptual consistency was shown by its reliability value ($\alpha = 0.733$), which was similarly greater than other dimensions. While feedback ($\alpha = 0.379$) was rather modest, task importance ($\alpha = 0.638$) demonstrated high agreement. The magnitude contrast shows that employee impression of autonomy is more than four times stronger than that of task meaning. Consequently, medical sales agents' work experience is dominated by their individuality in decision-making.

4.4.2. Construct Validity of Job Characteristics

Dimension separation between constructs is confirmed by five distinct reliability factors. While independence exhibits good consistency ($\alpha = 0.733$), skill diversity ($\alpha = 0.668$), task identity ($\alpha = 0.541$) and the importance of the task ($\alpha = 0.638$) all exhibit acceptable consistency. The only indicator of respondents' lack of concurrence is feedback ($\alpha = 0.379$). Workers see distinct job elements instead of a single overall job factor, as most values surpass $\alpha > 0.50$. As a result, the theoretical framework of job characteristics has empirical backing.

4.4.3. Variance Explained by Job Dimensions

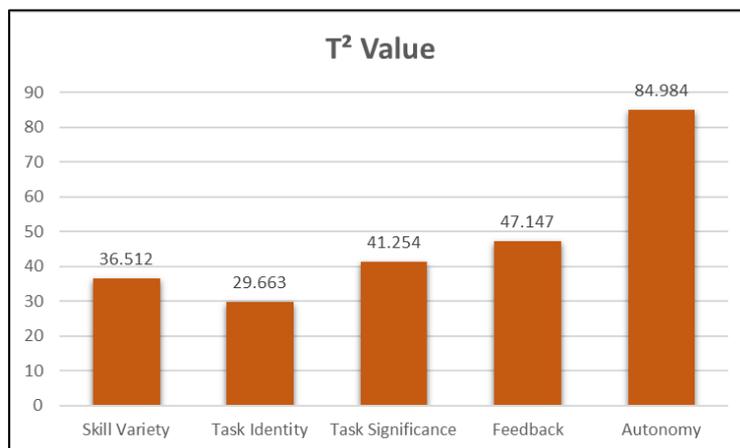


Figure 8 Variance Explained by Job Dimensions

Figure 8 shows Variance Explained by Job Dimensions. Independence is 84.984, the importance of the task is 41.254 and feedback is 47.147, according to Hotelling's T2 values. Compared to task relevance, autonomy accounts for about

twice as much perceptual variance and is more significant than feedback. Its greatest F value (45.797) is consistent with this, indicating a significant psychological influence. Independence, not repetitive work, is the primary criterion by which employees assess the quality of their jobs. Therefore, the primary factor influencing how people see their jobs is authority.

4.5. Demographic influence (anova)

4.5.1. Age Differences in Job Satisfaction

Table 7 Age-wise Variation in Job Satisfaction

Category	Value	Interpretation
Hotelling’s T ²	218.851	High variation across age groups
F value	54.182	Strong significant difference
Significance	p < 0.001	Statistically significant effect

Table 7 shows Age-wise Variation in Job Satisfaction. Age-related differences in job satisfaction were statistically significant (F = 54.182, p < 0.001). Strong perception differences between employees across various career levels are indicated by the big F value. Due to adaptation and target pressure, younger representatives' satisfaction levels fluctuated, but older employees' assessments of their working conditions remained consistent. This implies that comfort with duties is increased by job familiarity. Therefore, rather than problems with organization, age affects happiness via adaptation. Yet, long-term commitment is not solely determined by age.

4.5.2. Experience Influence on Commitment

Table 8 Experience-wise Organizational Commitment

Category	Value	Interpretation
Commitment Reliability (α)	0.701	Stable attachment with experience
Satisfaction Reliability (α)	0.488	Fluctuating comfort level
Difference	0.213	Experience stabilizes commitment

Table 8 shows Experience-wise Organizational Commitment. Across expertise levels, organizational commitment was more consistent than pleasure ($\alpha = 0.701$ vs 0.488). Extended work exposure increased workers' emotional connection to the company. Being acquainted with processes and dealing with consumers strengthens a sense of community and lowers uncertainty. Thus, dedication grows gradually as experience accumulates. This suggests that learning and adaptability are more important for survival than instant job comfort. Experience serves as a behavioural stabilizer.

4.5.3. Income Effect on Attitudes

Figure 9 shows Income vs Satisfaction and Commitment. Variation in income was less pronounced than that in pleasure (T² = 218.851). Employee commitment patterns were similar across pay levels, suggesting that retention behavior cannot be explained solely by financial compensation. More money did not proportionately increase attachment, although it did somewhat improve short-term contentment. Financial lures were overcome by emotional working circumstances. Among economic groups, the chart shows relatively unchanged levels of commitment. Therefore, rather than being a determining element, income serves as a supportive one.



Figure 9 Income vs Satisfaction and Commitment

4.5.4. Work–Life Balance Effect

Figure 10 depicts Satisfaction and Commitment Variability. The influence of work pressure is seen in the difference between commitment reliability (0.701) and satisfaction reliability (0.488). Due to an imbalance in workload, sales professionals frequently maintain their commitment even when their level of satisfaction declines. Comfort is lessened by fields travel as well as achievement goals than by organizational commitment. This suggests that while commitment varies gradually, emotional strain first affects satisfaction. The graphic illustrates the difference between commitment and satisfaction levels. As a result, the position is psychologically taxing without immediately leading to turnover.

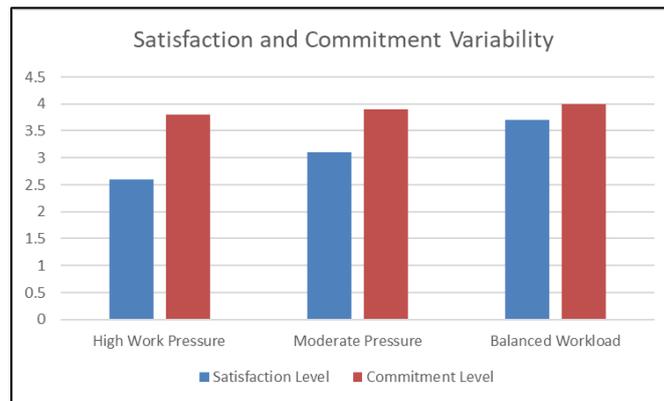


Figure 10 Satisfaction and Commitment Variability

4.5.5. Combined Demographic Effect

Although they had less of an impact than occupational characteristics, overall demographic variables did show some relevance. Despite variations in age, wealth and experience, commitment stability was high ($\alpha = 0.701$). This suggests that personal background is not the primary determinant of employee attitudes. Rather, work design dictates the direction of behaviour, while demographics alter the intensity of perception. Consequently, rather of serving as predictors, demographic characteristics serve as modifiers. The primary predictors of dedication and fulfilment are still organizational traits.

4.6. Relationship analysis

4.6.1. Overall Relationship Between Job Dimensions and Attitudes

Table 9 Association Indicators Between Job Characteristics and Attitudes

Category	Value	Interpretation
Job Satisfaction Variability	$T^2 = 218.851$	High perceptual fluctuation
Organizational Commitment Variability	$T^2 = 90.310$	Lower variability than satisfaction
Commitment Reliability	$\alpha = 0.701$	Stable psychological attachment
Satisfaction Reliability	$\alpha = 0.488$	Dynamic and situational perception

Compared to commitment ($T^2 = 90.310$), the variation in the level of workplace fulfilment ($T^2 = 218.851$) is significantly larger, suggesting that individuals assess working conditions prior to developing connection. This sequential psychological procedure is supported by a higher level of commitment ($\alpha = 0.701$) compared with satisfaction ($\alpha = 0.488$). Therefore, job aspects have a significant impact on attitudes, but only through satisfaction assessment. Before developing an emotional attachment, workers cognitively understand task significance, independence and judgment. This demonstrates that employee mentality is directly influenced by job design rather than socioeconomic background. As a result, contentment functions as a behavioural stage in between.

4.6.2. Role of Feedback in Employee Attitude

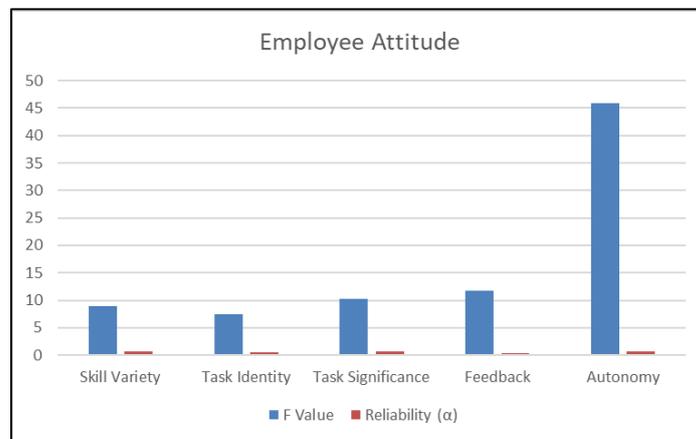


Figure 11 Role of Feedback in Employee Attitude

Figure 11 illustrates Role of Feedback in Employee Attitude. When compared with autonomy ($F = 45.797$), feedback had a comparatively smaller effect ($F = 11.672$). This suggests that under field conditions, personnel rely more on their own self-managed judgment and less on supervisory communication. The lack of input reliability ($\alpha = 0.379$) also indicates that representative' performance communication is inconsistent. However, by outlining standards, criticism still helps to boost confidence. The graphic emphasizes that while communication enhances attitudes, it does not take precedence over determination. Input therefore promotes psychological stability, but the main source of motivation is autonomy.

4.7. Prediction analysis

4.7.1. Key Predictors of Job Satisfaction

Table 10 Association Indicators Between Job Characteristics and Attitudes

Job Dimension	F Value	Predictive Strength
Autonomy	45.797	Strongest predictor
Feedback	11.672	Moderate predictor
Task Significance	10.213	Moderate predictor

Table 10 shows Association Indicators Between Job Characteristics and Attitudes. Autonomy demonstrates the highest predictive strength for satisfaction ($F = 45.797$), exceeding other dimensions by a large margin. Feedback and task significance contribute moderately but remain secondary predictors. This indicates employees evaluate job quality mainly through independence in performing duties. Structured supervision and task meaning influence satisfaction only after autonomy needs are met. Therefore, motivational structure in pharmaceutical sales is autonomy-centric. Satisfaction depends primarily on decision freedom rather than task complexity.

4.7.2. Key Predictors of Organizational Commitment

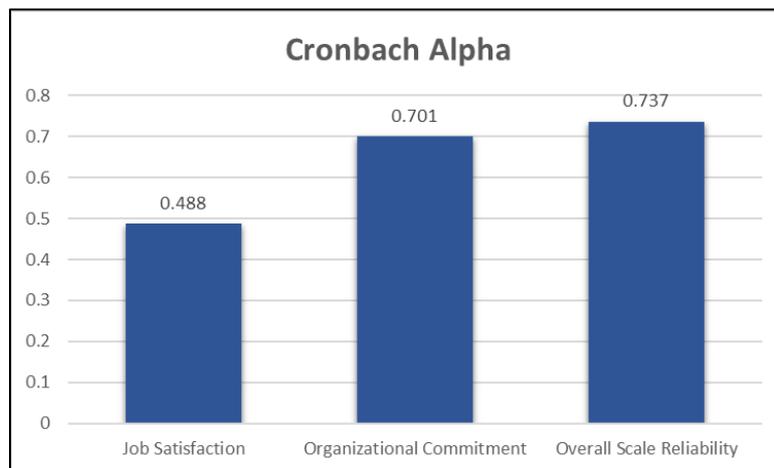


Figure 12 Commitment vs Satisfaction Reliability

Figure 12 shows Commitment vs Satisfaction Reliability. Compared to pleasure reliability ($\alpha = 0.488$), commitments consistency ($\alpha = 0.701$) is significantly better. It demonstrates that commitment is determined by a person's cumulative positive experiences rather than their demographics. After consistently expressing satisfaction with their work environment, employees stay on board. As a result, commitment is formed on the behavioural basis of satisfaction. Greater consistency in commitment over variations in satisfaction is depicted in the figure. Therefore, psychological assessment rather than outward traits is where organizational attachment originates.

4.8. Mediating role of job satisfaction

According to the mediation study, job characteristics have a bigger effect on the commitment of organizations through work satisfaction than via a direct channel. Compared to organizational commitment ($T2 = 90.310$), work satisfaction variability (Hotelling's $T2 = 2188.851$) is significantly greater, indicating that employees are more responsive to job features during the satisfaction stage. The existence of an intermediary psychological process is statistically supported by the distinction between the two variability measures ($\Delta T2 = 128.541$). This interpretation is further supported by reliability coefficients, which reveal that commitment is more stable ($\alpha = 0.701$) than satisfaction ($\alpha = 0.488$), indicating that commitment develops over time rather than instantly. Subsequently stabilising into attachment levels, the greater F-statistics of job aspects like autonomy ($F = 45.797$) likewise first show up in satisfaction outcomes. As a result, workers evaluate autonomy, task importance and feedback to gauge their level of satisfaction before forming a lasting corporate bond.

5. Conclusions

In this study, the Job Qualities Theory was used to analyse how key job aspects affected medical sales representatives' organizational commitment as well as job fulfilment. The findings support the theoretical premise that workers first understand their conditions of employment, feel satisfied with their jobs and then build a lasting bond with the company. This process is different from the straight development of loyalty from job structure. Therefore, job satisfaction serves as a behavioural stage that mediates the relationship between organizational dedication and work design. The workforce was relatively young (72.6% under 30 years old) and had moderate incomes (66.8% between ₹10,001 and ₹15,000), according to the demographic profile; nonetheless, these individual characteristics had little bearing on dedication levels. According to reliability analysis, work satisfaction ($\alpha = 0.488$) was less stable than organizational commitment ($\alpha = 0.701$). Similar to commitment ($T2 = 90.310$, $F = 22.358$), variability statistics revealed that satisfaction varied greatly ($T2 = 218.851$, $F = 54.182$), suggesting that workers initially react strongly to work situations before developing a steady attachment. Independence was the most significant element among the work qualities ($F = 45.797$; variance = 84.984), whereas task significance ($F = 10.213$; variance = 41.254) and feedback ($F = 11.672$; variance = 47.147) had relatively little effect. This indicates that autonomy in making choices and exercising authority over professional activities are more important to medical sales representatives than formal supervision. Compared to emotional job encounters, monetary rewards and demographic background have less of an impact on commitment. The causality order was further reinforced by the mediation examination: job aspects first affect satisfaction and in turn leads to commitment. The statistical evidence for the idea that attachment emerges after multiple positive job assessments rather than instant external incentives comes from a variance in variability ($\Delta T2 = 128.541$). In a result, behaviour-based engagement in the pharmaceutical industry is shaped through a series of positive experiences.

Overall, the study comes to the conclusion that happiness and autonomy have a major role in organizational commitment. Employee satisfaction will rise dramatically, commitment will be stabilized and turnover intents will be decreased by increasing decision freedom, offering meaningful job positions and upholding constructive feedback methods. Therefore, in field-based organizational settings, the most crucial human resource approach for maintaining efficiency as well as retention across medical sales representatives is good work design.

References

- [1] T. Hernaus, M. Černe, and A. Škerlavaj, "Contextualizing job design for individual work performance," *Journal of Vocational Behavior*, vol. 146, Article 103890, 2025.
- [2] A. Presbitero, R. Roxas, and S. Chadee, "Employee engagement and retention in dynamic work environments," *Journal of Business Research*, vol. 169, Article 114042, 2024.
- [3] M. A. I. Gazi, M. S. Hossain, and M. R. Islam, "Analyzing the impact of job satisfaction on employee behavior and organizational outcomes," *Heliyon*, vol. 10, no. 3, Article e24511, 2024.
- [4] E. Shdaifat, "Job satisfaction and employee performance: Empirical evidence from service organizations," *Procedia Computer Science*, vol. 219, pp. 742–749, 2023.
- [5] J. P. Meyer, N. J. Allen, and C. A. Smith, "Commitment in the workplace: Recent developments and future directions," *Human Resource Management Review*, vol. 32, no. 2, Article 100874, 2022.
- [6] D. Turek and J. Wojtczuk-Turek, "Organizational commitment and job crafting as predictors of employee performance," *Journal of Vocational Behavior*, vol. 144, Article 103843, 2024.
- [7] A. Malik and R. Garg, "Managing talent retention in highly competitive environments," *International Journal of Human Resource Management*, vol. 34, no. 9, pp. 1803–1825, 2023.
- [8] Kailay, M., Hamouche, S., Shamout, M.D., Chabani, Z. and Askri, S., 2024, June. Exploring the Link Between Organizational Commitment and Job Satisfaction: A Comprehensive Review of Literature. In *International Scientific Conference Management and Engineering* (pp. 287-296). Cham: Springer Nature Switzerland.
- [9] Raihan, T., 2020. Role of job characteristics model on employee job satisfaction: An empirical study. *Journal of Business Administration*, 32(1), pp.179-196.
- [10] Modise, J.M., 2023. The impacts of employee workplace empowerment, effective commitment and performance: An organizational systematic review. *International Journal of Innovative Science and Research Technology*, 8(7), pp.3435-3457.

- [11] Yiming, L., Yan, L. and Jinsheng, Z., 2024. Effects of organizational climate on employee job satisfaction and psychological well-being: the role of technological influence in Chinese higher education. *BMC psychology*, 12(1), p.536.
- [12] Luthans, F., Luthans, K., Luthans, B. and Peterson, S., 2024. Psychological, physical, and social capitals: A balanced approach for more effective human capital in today's organizations and life. *Organizational Dynamics*, 53(4), p.101080.
- [13] Grundy, Q., 2025. Delivering the script: The educational activities of medical device industry representatives as a knowledge management strategy. *Social Science & Medicine*, p.118565.
- [14] [Caligiuri, P., 2025. Need greater adaptability in the workforce? Foster contextual agility competencies. *Organizational Dynamics*, p.101154.
- [15] Ampofo, E.T., 2020. Mediation effects of job satisfaction and work engagement on the relationship between organisational embeddedness and affective commitment among frontline employees of star-rated hotels in Accra. *Journal of Hospitality and Tourism Management*, 44, pp.253-262.
- [16] Yadav, A., Pandita, D. and Singh, S., 2022. Work-life integration, job contentment, employee engagement and its impact on organizational effectiveness: a systematic literature review. *Industrial and Commercial Training*, 54(3), pp.509-527.
- [17] Jewell, D.O., Jewell, S.F. and Kaufman, B.E., 2022. Designing and implementing high-performance work systems: Insights from consulting practice for academic researchers. *Human Resource Management Review*, 32(1), p.100749.
- [18] Goyal, P., Bhattacharya, S. and Gandhi, A., 2022. Grounded theory in management research: through the lens of gender-based pay disparity. *Journal of Advances in Management Research*, 19(1), pp.12-30.
- [19] H. Nie, J. Zhu, and Y. Chen, "Job autonomy and work meaning as drivers of employee job-crafting behaviors," *Frontiers in Psychology*, vol. 14, 2023, Art. no. 1194018.
- [20] A. I. Aljumah, M. Nuseir, and A. Alam, "Intrinsic and extrinsic motivation and job satisfaction: Toward work engagement in organizations," *Cogent Business & Management*, vol. 10, no. 1, 2023.
- [21] Salas-Vallina, A., Simone, C. and Fernández-Guerrero, R., 2020. The human side of leadership: Inspirational leadership effects on follower characteristics and happiness at work (HAW). *Journal of Business Research*, 107, pp.162-171.
- [22] Meyers, M.C., Kooij, D., Kroon, B., de Reuver, R. and van Woerkom, M., 2020. Organizational support for strengths use, work engagement, and contextual performance: The moderating role of age. *Applied Research in Quality of Life*, 15(2), pp.485-502.
- [23] Sami, A.A. and Iqbal, A., 2024. The Impact Of Job Characteristics On Employee Turnover Intention Through Psychological Contract In The Pharmaceutical Industry Of Pakistan. *Migration Letters*, 21(S14), pp.325-350.
- [24] Meena, A.R. and Batra, G., Driving Organisational Success: The Synergistic Effects of Positive Organisational Behaviour, Innovation, and Leadership on Employee Performance and Growth in the IT Sector.
- [25] B. Mostafa and R. Jaafar, "Revisiting job characteristics and job satisfaction: A systematic review with bibliographic analysis," *Sustainability*, vol. 16, no. 2, 2024.
- [26] Wang, Q. and Huang, H., 2025. Sustainable labor practices in the gig economy: Examining the role of algorithmic control on overwork through SEM and fsQCA. *Journal of Cleaner Production*, 531, p.146815.
- [27] Darvishmotevali, M. and Ali, F., 2020. Job insecurity, subjective well-being and job performance: The moderating role of psychological capital. *International journal of hospitality management*, 87, p.102462.
- [28] Deussom, R., Mwarey, D., Bayu, M., Abdullah, S.S. and Marcus, R., 2022. Systematic review of performance-enhancing health worker supervision approaches in low-and middle-income countries. *Human resources for health*, 20(1), p.2.
- [29] Abdulaziz, A., Bashir, M. and Alfalih, A.A., 2022. The impact of work-life balance and work overload on teacher's organizational commitment: do Job Engagement and Perceived Organizational support matter. *Education and Information Technologies*, 27(7), pp.9641-9663.
- [30] Novruzov, S., 2024. The impact of leadership styles on organizational commitment: A study in the trading and logistics company in Azerbaijan. *Open Journal of Business and Management*, 12(5), pp.3572-3622.

- [31] Scharp, Y.S., Bakker, A.B. and Breevaart, K., 2022. Playful work design and employee work engagement: A self-determination perspective. *Journal of Vocational Behavior*, 134, p.103693.
- [32] Hirschi, A. and Spurk, D., 2021. Ambitious employees: Why and when ambition relates to performance and organizational commitment. *Journal of vocational behavior*, 127, p.103576.
- [33] Seidel, B., 2025. Transforming the Pharmaceutical Field Force: The Future of Sales Representatives. In *Transformation in Health Care: Game-changers in Digitalization, Technology, AI and Longevity* (pp. 201-212). Cham: Springer Nature Switzerland.
- [34] Philimis, J., 2025. The Impact of Job Autonomy on Employee Retention in the it Sector: A Comprehensive Analysis. *Public Organization Review*, 25(3), pp.971-986.
- [35] Yoopetch, C., Nimsai, S. and Kongarchapatara, B., 2021. The effects of employee learning, knowledge, benefits, and satisfaction on employee performance and career growth in the hospitality industry. *Sustainability*, 13(8), p.4101.
- [36] Nanjundeswaraswamy, T.S., 2023. The mediating role of job satisfaction in the relationship between leadership styles and employee commitment. *Journal of Economic and Administrative Sciences*, 39(2), pp.286-304.
- [37] Krijgsheld, M., Tummers, L.G. and Scheepers, F.E., 2022. Job performance in healthcare: a systematic review. *BMC Health Services Research*, 22(1), p.149.