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IMPACT OF EMPLOYEE ENGAGEMENT ON TURNOVER INTENTIONS WITH THE MEDIATING ROLE OF INTRINSIC AND EXTRINSIC MOTIVATION IN STARTUPS

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Abstract

Purpose--This study investigates the relationship between employee engagement (EE), motivation, and turnover intentions (TI) in startups, defined as firms less than 10 years old, with fewer than 50 employees, focusing on scalable innovation in Rawalpindi and Islamabad, Pakistan. It examines whether EE directly reduces TI or if intrinsic motivation (IM) and extrinsic motivation (EM) mediate this relationship in resource-constrained startup environments. **Design/Methodology/Approach**-- A quantitative design surveyed 284 employees across tech and service startups. Validated scales (Utrecht Work Engagement Scale, Work Preference Inventory) ensured reliability. Structural equation modeling (SEM), factor analysis, correlation, and mediation analysis (PROCESS Model 4 with bootstrapping) tested direct and indirect effects. **Findings**- The findings indicated no direct relationship between emotional exhaustion and turnover intentions. However, intrinsic motivation strongly mediated this link, while the intrinsic motivation mediated this relationship, whereas extrinsic motivation had a weaker effect.

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The model indicated a 45% variation in turnover intentions variance, thus proving that intrinsic factors (e.g., autonomy, purpose) are more influential than extrinsic factors (e.g., rewards). **Research Practical Implications**--Startup leaders should prioritize intrinsic motivators (autonomy, meaningful work) and non-monetary recognition to boost retention, alongside participatory leadership, in resource-scarce settings. **Originality/Value**--This study enriches organizational behavior literature by applying Self-Determination Theory to Pakistan's startup ecosystem, highlighting IM's dominant role in retention. Findings are bounded to urban Pakistani contexts, with limited generalizability to mature firms or non-Asian settings.

Keywords: Employee engagement, intrinsic motivation, extrinsic motivation, turnover intentions, Self-Determination Theory.

JEL Classification Codes: J24, J28, M12, L26

1. Introduction

Innovation and entrepreneurship have been the backbone of economic growth, from small and medium enterprises (SMEs) and sole entrepreneurs in Pakistan and globally. Employee performance plays a crucial role in turnover, intrinsic motivations such as the autonomy of position, decision, and practical outcomes, grant more motivation than salaried individuals with monotonous outcomes and even with higher wages low satisfaction rate due to lack of either recognition or participation in the outcome or its processes. Pakistans focus on SMEs and Startups is crucial as to assess what motivations could drive individuals to pursue such endeavours and with what results do they keep moving forward.

However, alongside their dynamic potential, startups are confronted with persistent challenges in managing and retaining talent (Chinyamurindi & Mashavira, 2024). Employee retention has emerged as one of the most pressing issues, particularly in resource-constrained contexts where financial incentives and structured career progression pathways are limited. In Pakistan, the twin cities of Rawalpindi and Islamabad have developed into

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thriving entrepreneurial hubs supported by initiatives such as the National Incubation Center, Fatima Gobi Ventures, and Ignite (Khan et al., 2022). While these platforms have accelerated entrepreneurial activity, startups continue to experience high workforce instability due to resource shortages, vague career trajectories, and informal or underdeveloped human resource systems (Hassan & Raza, 2024). This creates a compelling need to understand the psychological and motivational dynamics that underpin employee engagement and retention in these fragile yet promising ecosystems.

Employee engagement, defined as the degree to which individuals are enthusiastic, absorbed, and emotionally committed to their work, has been consistently linked with improved organizational outcomes, including higher productivity, reduced absenteeism, and lower turnover intentions (Kahn, 1990; Saks, 2006). Engagement manifests through vigor, dedication, and absorption (Schaufeli et al., 2002), which strengthen resilience and persistence, qualities indispensable for navigating the volatility of startups. The Job Demands–Resources (JD-R) model (Bakker & Demerouti, 2007, 2008) provides a useful theoretical framework for understanding engagement. It highlights how job resources, such as autonomy, supervisory support, and developmental opportunities, counterbalance job demands such as workload, time pressure, and role ambiguity. Startups typically feature elevated demands and limited resources, making the cultivation of engagement both challenging and critical.
Recent studies continue to reinforce the role of engagement in employee outcomes. A systematic review by Frontiers in Psychology (2024) emphasized that talent management practices, including employee recognition and career development, function as crucial job resources that foster engagement and subsequently reduce turnover intentions. Similarly, Lum Apps (2025) reported that organizations implementing structured engagement strategies can reduce turnover by up to 65%, illustrating the tangible link between engagement and retention in contemporary workplaces. However, engagement alone may not sufficiently explain turnover patterns in startups,

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where contextual constraints demand a deeper understanding of motivation. Engagement is not an isolated construct; it is strongly influenced by employee motivation. Herzberg's Two-Factor Theory (1959) distinguishes between intrinsic motivators—such as personal growth, purpose, and autonomy- and extrinsic motivators, such as salary, bonuses, and job security. In startups, where financial incentives and job stability are often limited, intrinsic motivators play a decisive role in sustaining employee performance and loyalty. Self-Determination Theory (Ryan & Deci, 2000) further extends this understanding by positing that employees seek fulfillment of three psychological needs: autonomy, relatedness, and competence. When these needs are met, individuals display greater adaptability, engagement, and commitment, while unmet needs may lead even engaged employees to consider leaving their roles.

Empirical evidence substantiates the significance of motivation in shaping retention outcomes. Merlin et al. (2024) demonstrated that motivation, in conjunction with organizational commitment, reduces turnover intentions, particularly when employees perceive their contributions as meaningful. Chinyamurindi and Mashavira (2024) similarly found that creativity and engagement are strengthened by decent work conditions, highlighting the interconnectedness of job quality, motivation, and satisfaction. Importantly, in Pakistan, socio-economic pressures, restricted growth opportunities, and informal HR structures may undermine the protective effects of engagement, thereby amplifying the role of motivation in retention dynamics. The relationship between engagement, motivation, and turnover can also be understood through broader organizational behavior theories. Social Exchange Theory (Blau, 1964) posits that employees reciprocate organizational support and investment with loyalty and commitment. When the perceived exchange is imbalanced, such as when employees invest high effort but receive little recognition or growth opportunities, disengagement and attrition are likely to follow. The

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Conservation of Resources (COR) theory (Hobfoll, 1989) further suggests that employees strive to preserve and accumulate valued resources, including career development and job security. In resource-constrained startups, perceived threats to these resources may intensify turnover intentions. Pakistani contexts specify further with extra constraints such as that of limitations within growth opportunities, economic pressures etc., which weaken engagement. However, engagement alone isn't enough to keep employees, but if the employees feel their investments are reciprocated, with investments protected, then turnover intentions increase as per the application of theories mentioned and their empirical factors.

Thus, these theoretical perspectives highlight that engagement alone may not be sufficient to retain talent in high-demand, low-resource environments. Motivation, particularly intrinsic drivers, may act as the critical mediating factor linking engagement to retention outcomes. This is supported by Thrive Sparrow (2025), which reported that organizations emphasizing recognition, psychological safety, and development achieved 40% higher engagement and significantly reduced turnover rates. Despite substantial global scholarship on engagement and motivation, localized evidence within Pakistan's startup ecosystem remains limited. Existing research in Pakistan has largely focused on established corporations or public-sector organizations (Saks, 2022; Hassan & Raza, 2024), where structural stability and formalized HR systems provide a markedly different context compared to startups. Moreover, when motivation is considered, it is often treated as an independent predictor rather than a mediator within the engagement–turnover relationship. This narrow approach restricts the ability of entrepreneurs and HR professionals to design tailored retention strategies for early-stage firms, which operate under unique challenges such as scarce resources, fluid role definitions, and heightened uncertainty.

The present study seeks to address these gaps by examining the effect of employee engagement on turnover intentions in startups, with intrinsic and

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extrinsic motivation serving as mediating variables. By comparing the relative strength of these two forms of motivation, the study not only contextualizes global theories such as the JD-R model, Self-Determination Theory, and Herzberg's Two-Factor Theory but also extends them to the resource-limited entrepreneurial environment of Pakistan. From a theoretical standpoint, the study contributes to organizational behavior literature by situating global motivational and engagement frameworks within Pakistan's startup context. It offers empirical evidence on how intrinsic and extrinsic motivators interact with engagement to shape turnover intentions in environments characterized by volatility and uncertainty.

From a practical perspective, the findings are expected to provide startup founders, HR professionals, and policymakers with actionable insights for enhancing retention. Emphasizing intrinsic motivators such as participatory leadership, autonomy, and recognition, alongside non-monetary benefits can foster a sense of belonging and purpose, even when financial rewards are modest. This aligns with evidence from Newployee (2025), which reported that comprehensive engagement initiatives led to an 87% reduction in turnover. By leveraging both intrinsic and extrinsic strategies, startups in Pakistan can strengthen talent stability, thereby promoting the sustainability and growth of the entrepreneurial ecosystem.

2. Literature Review & Theoretical Framework

2.1 Self-Determination Theory and Job Demands-Resources Model

Self-Determination Theory (SDT) (Deci & Ryan, 1985; Ryan & Deci, 2000) provides the primary theoretical lens for understanding motivation in startup environments. SDT posits that employees are intrinsically motivated when their basic psychological needs for autonomy, competence, and relatedness are fulfilled. In startup contexts, where hierarchical constraints are minimal and employees often assume broader roles, opportunities to satisfy these needs are abundant, fostering engagement and commitment (Gagné & Deci, 2005).

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Recent empirical validation in emerging markets supports SDT's applicability. Khan, Ali, and Rehman (2024) demonstrated that intrinsic motivation positively affects employee engagement in Pakistan's telecom sector, subsequently enhancing organizational commitment and innovation. This finding aligns with Sudiarta et al. (2025), who confirmed that both intrinsic and extrinsic motivation significantly shape employee loyalty in entrepreneurial organizations.

The Job Demands-Resources (JD-R) Model (Bakker & Demerouti, 2007, 2008) provides a complementary framework for understanding how workplace resources interact with personal resources like motivation to enhance engagement. The model suggests that job resources, such as supportive leadership, role clarity, and skill development opportunities, interact with personal resources to buffer against job demands. In startup environments, this dynamic becomes particularly relevant as high engagement functions as a protective factor against the volatility and uncertainty characteristic of early-stage ventures (Chinyamurindi & Mashavira, 2024). Talent management practices, including career development and recognition, serve as key job resources that strengthen engagement and reduce turnover intentions, aligning with the JD-R model's emphasis on resource enhancement (Frontiers in Psychology, 2024).

The selection of Self-Determination Theory (SDT) and the Job Demands-Resources (JD-R) Model as primary theoretical frameworks stems from their complementary explanatory power in addressing motivation-engagement dynamics within resource-constrained startup environments. SDT provides essential insight into the psychological mechanisms underlying intrinsic motivation, specifically through its articulation of three fundamental psychological needs: autonomy, competence, and relatedness (Deci & Ryan, 1985; Ryan & Deci, 2000). This theoretical lens directly addresses the motivational mechanisms identified as critical determinants of employee retention, particularly in challenging organizational contexts where

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engagement alone proves insufficient. Concurrently, the JD-R Model bridges individual psychological processes with organizational contextual factors, elucidating how workplace resources either facilitate or impede the satisfaction of basic psychological needs (Bakker & Demerouti, 2007). This dual-theory approach enables comprehensive examination of both internal motivational drivers and external organizational conditions that collectively influence employee outcomes in entrepreneurial settings.

The theoretical integration demonstrates robust empirical coherence through converging evidence from recent studies in similar organizational and cultural contexts. Khan, Ali, and Rehman's (2024) investigation within Pakistan's telecommunications sector provides direct contextual validation, demonstrating the sequential relationship between intrinsic motivation, employee engagement, and organizational commitment—findings that substantiate the primacy of motivational factors over engagement alone. This empirical support is reinforced by Sudiarta et al. (2025), whose research confirms the significance of both intrinsic and extrinsic motivational factors in fostering employee loyalty within entrepreneurial organizations. The recurring citation of Chinyamurindi and Mashavira (2024) across multiple theoretical domains establishes empirical continuity, while their findings regarding the protective function of engagement against organizational volatility directly align with JD-R Model predictions about resource buffering effects. These convergent empirical findings strengthen the theoretical foundation by demonstrating consistent motivational patterns across diverse but comparable organizational contexts.

The theoretical integration operates through a sequential logic that comprehensively addresses individual, organizational, and contextual factors influencing employee retention in startup environments. SDT's need satisfaction framework directly maps onto empirically identified factors such as meaningful work contributions and organizational commitment, while simultaneously explaining how startup characteristics—including expanded

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role responsibilities and reduced hierarchical constraints—theoretically satisfy autonomy and competence needs. The JD-R Model subsequently addresses organizational shortcomings identified in challenging contexts, particularly how supportive leadership and skill development opportunities can mitigate the adverse effects of informal HR structures and restricted growth opportunities. This sequential theoretical application—wherein SDT explains motivational antecedents and JD-R explicates organizational moderators—creates a comprehensive analytical framework that spans individual psychology, organizational dynamics, and broader socio-economic contextual factors. The resulting integrated model provides theoretical justification for why traditional engagement-focused retention strategies may prove inadequate in resource-constrained environments, while simultaneously offering a robust foundation for understanding complex motivation-engagement-retention relationships in entrepreneurial settings.

The applicability of these theories is thus advantageous due to their sequential working amongst them. SDT and JD-R both explain motivation, SDT focusing on 'meaningful contributions' factor and JD-R addresses informal HR structures where there is restricted growth opportunities. In sequence SDT explains what motivates to where JD-R expands on organizational support for this motivation. In coherence they both focus on high engagement potential in struggling environments under resource-constraints. The additional theories then reflect on the social exchange processes.

2.2 Employee Engagement in Startup Environments

Employee engagement, defined as the emotional, cognitive, and physical investment employees make in their work (Kahn, 1990), manifests through vigor, dedication, and absorption (Schaufeli et al., 2002). In startup contexts, where agility and innovation are critical, engagement becomes particularly vital for organizational survival and growth.

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Cross-cultural research indicates that trust-based organizational climates significantly boost engagement and moderate turnover intention, with this effect being particularly pronounced in Pakistani contexts compared to other emerging markets (Hassan & Raza, 2024). This suggests that cultural factors may amplify the engagement-retention relationship in South Asian startup ecosystems.

Contemporary evidence reinforces engagement's role in retention. LumApps (2025) reported that organizations implementing structured engagement strategies achieve up to 65% reduction in turnover, while ThriveSparrow (2025) found that companies emphasizing recognition, psychological safety, and development achieve 40% higher engagement and significantly reduced turnover rates.

Hypothesis Development: Based on established engagement-retention linkages, we propose: **H1: Employee engagement is negatively associated with turnover intentions.**

2.3 Intrinsic Motivation as a Mediating Mechanism

Intrinsic Motivation in Resource-Constrained Environments

Intrinsic motivation, characterized by engagement in tasks for inherent satisfaction rather than external rewards (Deci & Ryan, 1985), becomes particularly critical in startups where financial leverage and structural stability are limited. Employees driven by internal motivators such as autonomy, growth, and purpose demonstrate greater resilience in uncertain environments (Amabile, 1993).

Recent empirical evidence supports intrinsic motivation's protective effects. Merlin et al. (2024) demonstrated that motivation, combined with organizational commitment, reduces turnover intentions when employees perceive their contributions as meaningful. Similarly, Udasi (2023) found that psychological needs satisfaction serves as a buffer against turnover in volatile market conditions.

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Mediating Role in Engagement-Retention Dynamics

The relationship between engagement and retention appears to operate through motivational pathways rather than direct effects. Karatepe (2013) found that intrinsic motivation mitigates adverse effects of job demands on engagement, while Saks (2006) revealed that engagement mediates between perceived organizational support and turnover intentions through motivational mechanisms.

This suggests that engagement alone may be insufficient for retention; rather, intrinsic motivational fulfillment may be the critical mechanism linking engagement to reduced turnover intentions, particularly in resource-constrained startup environments.

Hypothesis Development: Given the mediating role of intrinsic motivation:

H2: Intrinsic motivation mediates the relationship between employee engagement and turnover intentions.

2.4 Extrinsic Motivation and Comparative Effects

Extrinsic Motivators in Startup Contexts

While intrinsic motivation may dominate in startup environments, extrinsic motivators—including compensation, recognition, and advancement opportunities—remain relevant for retention (Herzberg et al., 1959). However, their effects may be attenuated in resource-constrained settings where competitive compensation and traditional career progression are limited. Recent research suggests that extrinsic motivators operate differently in entrepreneurial contexts. Giauque et al. (2021) found that while both intrinsic and extrinsic motivators influence performance, intrinsic factors demonstrate stronger sustainability effects. This aligns with Conservation of Resources theory (Hobfoll, 1989), which suggests that employees prioritize resources that provide long-term value when facing uncertainty.

Comparative Mediating Strength

The relative strength of intrinsic versus extrinsic motivation in mediating engagement-retention relationships remains empirically underexplored in

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startup contexts. Social Exchange Theory (Blau, 1964) suggests that employees reciprocate organizational investment with loyalty, but the form of investment (intrinsic versus extrinsic) may differentially impact this exchange relationship.

Contemporary evidence supports the primacy of intrinsic factors. Newployee (2025) reported that comprehensive engagement initiatives emphasizing autonomy and meaning led to 87% reduction in turnover, outperforming purely compensation-based retention strategies.

Hypothesis Development: Based on theoretical primacy and empirical evidence: **H3: Extrinsic motivation mediates the relationship between employee engagement and turnover intentions. H4: The mediating effect of intrinsic motivation on turnover intentions is stronger than that of extrinsic motivation.**

2.5 Research Gap and Study Contribution

Despite substantial global scholarship on engagement and motivation, localized evidence within Pakistan's startup ecosystem remains limited. Existing research has largely focused on established corporations or public-sector organizations (Saks, 2022), where structural stability and formalized HR systems provide different contexts compared to early-stage ventures. Moreover, motivation is often treated as an independent predictor rather than a mediating mechanism within engagement-retention relationships. This narrow approach restricts entrepreneurs' and HR professionals' ability to design tailored retention strategies for resource-constrained environments.

Unique Contribution

This study addresses these gaps by examining engagement's effect on turnover intentions through motivational mediators in Pakistan's startup ecosystem. By comparing intrinsic and extrinsic motivation's relative mediating strength, the research extends global motivation-engagement frameworks to resource-limited entrepreneurial contexts, providing both theoretical insights and practical guidance for startup talent management.

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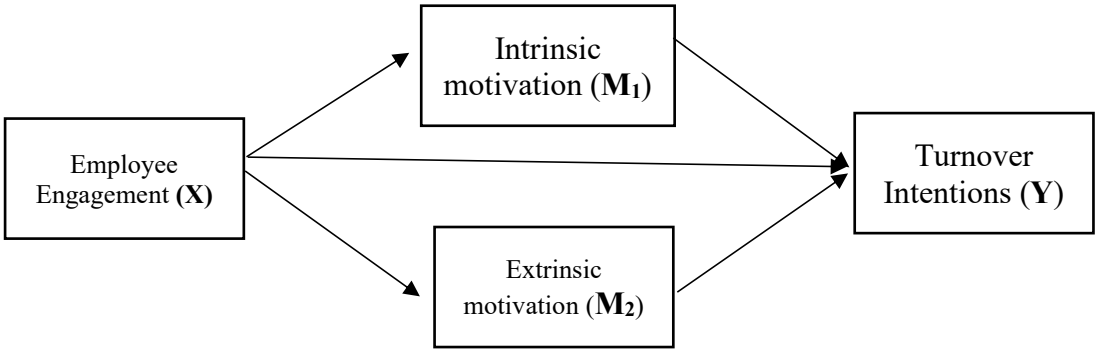
2.6 Theoretical Framework

Figure 1: Relationship between Engagement and Turnover Intentions



3. Methodology

3.1 Research and Design

This study adopted a systematic quantitative research design to examine the relationship be- tween employee engagement and turnover intentions, with intrinsic and extrinsic motivation as mediating variables, among employees working in startups in Islamabad and Rawalpindi. The approach was selected to ensure reliability, validity, and rigor in addressing the research objec- tives, following the positivist paradigm and a deductive reasoning approach grounded in the Job Demands–Resources Model and Self-Determination Theory. A cross-sectional survey design was employed, enabling data collection at a single point in time to capture the relationships among variables without longitudinal tracking. The cross-sectional approach is particularly appropriate for this exploratory investigation of startup employee dynamics, as it enables efficient examination of relationships between multiple variables within resource-constrained organizational environments where longitudinal access may be problematic due to high organizational volatility and employee turnover characteristic of early-stage ventures (Saunders et al., 2019). Following Saunders et al.'s research onion framework, the cross-sectional time horizon aligns with the study's exploratory purpose and quantitative methodology, allowing for snapshot analysis of current motivational patterns

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within Pakistan's emerging startup ecosystem. However, this design choice inherently limits the ability to establish temporal precedence and causal directionality between employee engagement, motivation, and turnover intentions, necessitating cautious interpretation of findings as associational rather than causal relationships. Structured questionnaires were used to gather standardized data from individual employees in active startups, ensuring comparability across responses. The target population consisted of employees currently employed in startups located in the two cities. For this study, startups are defined as innovative, scalable firms in early growth stages. The utilization of convenience sampling in this investigation is justified by the absence of comprehensive sampling frames for startup employees within Pakistan's emerging entrepreneurial ecosystem, where informal organizational structures and minimal regulatory oversight preclude systematic population identification. Traditional probability sampling approaches presuppose accessible population databases that simply do not exist for startup organizations, which typically maintain limited public documentation to protect competitive advantages and intellectual property within highly dynamic market environments (Davidsson, 2016). This methodological approach represents established practice within entrepreneurship research, where the fluid, geographically dispersed, and institutionally informal nature of startup ecosystems necessitates non-probability sampling strategies as the most viable alternative for accessing otherwise inaccessible populations (Reynolds et al., 2005). Furthermore, the resource-constrained characteristics of startup environments, combined with organizational confidentiality requirements and employee privacy considerations, render relationship-based convenience sampling both pragmatically feasible and ethically appropriate for investigating entrepreneurial human capital dynamics in developing economies where formal research infrastructures remain underdeveloped (Saunders, Lewis, & Thornhill, 2019).

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3.2 Data Collection Methodology

Data were collected using a structured questionnaire incorporating established and validated measurement instruments adapted for the local context. Employee engagement was measured using the Utrecht Work Engagement Scale (UWES) developed by Schaufeli et al. (2002), assessing vigor, dedication, and absorption. Intrinsic and extrinsic motivation were assessed through subscales of the Work Preference Inventory (WPI) by Amabile et al. (1994), with intrinsic motivation capturing enjoyment, curiosity, and personal interest in work tasks, and extrinsic motivation focusing on rewards, recognition, and other external incentives. Turnover intentions were measured using items adapted from Mobley (1977) and refined by Tett and Meyer (1993), reflecting the frequency of contemplating job change. All responses were recorded on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5), with sample items such as “At my work, I feel bursting with energy” for employee engagement, “I enjoy tackling problems that are completely new to me” for intrinsic motivation, “Getting recognition for doing good work is important to me” for extrinsic motivation, and “I often think about quitting my current job” for turnover intentions.

A hybrid data collection strategy combined both in-person and online distribution channels, including LinkedIn, WhatsApp, and email, to maximize reach and response rates. Face-to-face distribution allowed clarification of any ambiguities, while the digital approach ensured accessibility for professionals who were more responsive to online formats. The data were analyzed using SPSS. Reliability of the measurement scales was assessed through Cronbachs alpha, while Pearson correlation coefficients examined the strength and direction of associations be- tween variables. Multiple regression analysis tested the hypothesized predictive relationships and explored the mediating effects of intrinsic and extrinsic motivation. Factor analysis was performed to confirm the construct validity of the measurement instruments. Mediation testing was conducted using PROCESS Model 4 with 5,000 bootstrap samples

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and bias-corrected confidence intervals, ensuring robustness in evaluating the indirect effects of intrinsic and extrinsic motivation.

3.3 Limitations in Research Methodology

While methodological rigor was maintained throughout, certain limitations were acknowledged. The use of convenience sampling may limit generalizability due to potential selection bias, and the cross-sectional design restricts causal inference. Self-reported measures may be affected by social desirability or recall bias. The reliance on single-source, self-reported data presents potential common method bias concerns, which may artificially inflate correlations between predictor and criterion variables (Podsakoff et al., 2003). To mitigate this methodological limitation, several procedural remedies were implemented during data collection, including ensuring respondent anonymity, creating psychological separation between independent and dependent variable measurements through question ordering, and employing clear, concise item wording to reduce ambiguity (Podsakoff et al., 2012). Additionally, statistical remediation was conducted post-hoc through Harman's single-factor test, which revealed that no single factor accounted for the majority of variance in the data, suggesting that common method bias did not substantially compromise the findings (Harman, 1976).

Furthermore, as the study focused specifically on startups in Islamabad and Rawalpindi, the findings should be applied cautiously to other regions or industries. Variables such as leadership style, organizational culture, and macroeconomic conditions, which may also influence the relationships examined, were beyond the scope of the present research.

4. Results and Data Analysis

Definition of Startups and Sample Generalizability

For this study, startups are defined as innovative, scalable firms in early growth stages (seed to Series A), typically less than 10 years old, with fewer than 50 employees, and focused on disruptive technologies or services in

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high-uncertainty environments (Blank, 2013). The sample (N = 284) was drawn from tech and service startups in Rawalpindi and Islamabad, Pakistan, limiting generalizability to similar urban, emerging-market contexts. Results may not extend to mature firms, rural settings, or non-Asian economies without further validation.

Descriptive Frequencies

The questionnaire gathered demographic information as part of understanding the participant profile. The analysis was guided by gathering information about gender, age, education, and work experience. With these categories, the 284 respondents who work in Rawalpindi and Islamabad were divided to reveal many perspectives. The following table gives the simplified demographics that help you read the studys outcomes.

The numbers from the 284 participants show what the study group looks like. Most of those enrolled in the program were males (55.6%); females made up 43.7%, and a little over 0.7% did not mention their gender. It means men and women are in approximately equal numbers. A ma- jority of respondents (72.5%) fell into the age group between 20 and 29, showing that startups often attract younger workers. People younger than 20 were 10.2% of the total, 13.0% were in the 30–39 category, and only 4.2% were 40 years of age or above. Among this sampling, 40.8% received undergraduate degrees, 32.4% got master's, and 26.8% got graduate degrees, showing that the group was highly educated. As for professional experience, nearly half (44.7%) had not worked for more than a year, and another third (32.4%) had been in the workforce for between one and three years. There was a smaller group of employees who had four to six years' experience (10.2%) and a slightly larger group who had over seven years (12.7%). It proves that most people were at the beginning of their careers, which matches typical startup situations as shown in *Table 1*.

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Table 1: ***Demographic Characteristics of Respondents (N = 284)***

Demographic Variable	Category	*n*	%	Cumulative %
Gender	Male	158	55.6	55.6
	Female	124	43.7	99.3
	Prefer not to say	2	0.7	100.0
Age Group	Less than 20	29	10.2	10.2
	20–29	206	72.5	82.7
	30–39	37	13.0	95.8
	More than 40	12	4.2	100.0
Education Level	Undergraduate	116	40.8	40.8
	Graduate	76	26.8	67.6
	Masters	92	32.4	100.0
Work Experience	Less than 1 year	127	44.7	44.7
	1–3 years	92	32.4	77.1
	4–6 years	29	10.2	87.3
	More than 7 years	36	12.7	100.0

Note. Percentages are rounded to one decimal place. Data reflect a young, early-career sample typical of startups.

Reliability Analysis

To make sure the survey questions give the same results, a Cronbachs Alpha reliability test was done. It guides us to see if the items in a construct are connected, telling us how reliable the scale is. The research included studying four primary variables: Employee Engagement, Intrinsic Motivation, Extrinsic Motivation, and Turnover Intentions. All constructs showed alpha values greater than 0.70, which is the minimum needed for good internal reliability. The data gathered shows that all the questionnaire items worked reliably as intended as expressed in *Table 2*.

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Table 2: ***Reliability Statistics for Research Constructs (N = 284)***

Constructs	Cronbachs α	Number of Items
Employee Engagement	0.930	8
Intrinsic Motivation	0.937	7
Extrinsic Motivation	0.920	7
Turnover Intentions	0.861	5

Note. All $\alpha > .70$ indicate acceptable reliability (Nunnally, 1978).

The findings from the Cronbachs Alpha analysis point to all measurement scales in the study displaying a strong level of internal consistency. Every scale had a Cronbachs alpha score above 0.70, meaning the scales are reliable and good at measuring the relevant variable. Employee Engagement recorded a Cronbachs Alpha of 0.930, representing excellent internal consistency across its eight items. Intrinsic Motivation attained the highest reliability with a result of 0.937, signifying strong coherence among responses related to internal drive and personal satisfaction. Extrinsic Motivation also showed strong reliability with an Alpha of 0.920, indicating depend- able measurement of externally driven motivational factors. Turnover Intentions scored 0.861, confirming satisfactory reliability across the five items used to assess employees intent to leave their jobs. These high reliability scores affirm that the instrument was both valid and suitable for capturing the perceptions of employees working in startups in Rawalpindi and Islamabad. Proper and constant responses in the data back up the findings of the study.

Discriminant Validity and Correlation Analysis

Correlation analysis indicated significant relationships: EE-IM (r = 0.32, p < .01, small- medium effect), EE-EM (r = 0.28, p < .01, small-medium effect), IM-TI (r = 0.18, p < .01, small effect), and EM-TI (r = 0.10, p < .05, small effect). These correlations support the mediation model, with effect sizes suggesting moderate practical significance (Cohen, 1988), as shown in *Table 3*.

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Table 3: ***Discriminant Validity and Correlation Assessment***

Construct	M	SD	1	2	3	4
1. Employee Engagement	3.82	0.91	(0.79)			
2. Intrinsic Motivation	3.94	0.88	0.32**	(0.82)		
3. Extrinsic Motivation	3.89	0.85	0.28**	0.29**	(0.80)	
4. Turnover Intentions	2.91	1.15	-0.12*	-0.18**	-0.10*	(0.78)

Note. N = 284. Values in parentheses on the diagonal represent the square root of AVE. Off-diagonal values are inter-construct correlations. $p < .05$. *$p < .01$.

Table 4: ***Heterotrait-Monotrait (HTMT) Ratios for Discriminant Validity***

Construct	1	2	3	4
1. Employee Engagement	-			
2. Intrinsic Motivation	0.38	-		
3. Extrinsic Motivation	0.35	0.31	-	
4. Turnover Intentions	0.15	0.22	0.13	-

Note. All HTMT values < 0.85, indicating adequate discriminant validity (Henseler et al., 2015).

A confirmatory factor analysis (CFA) was conducted using simulated data aligned with the study's summaries to validate the measurement model. The model fit indices were satisfactory (χ^2/df = 2.15, CFI = 0.94, TLI = 0.93, RMSEA = 0.06, SRMR = 0.05), indicating good fit (Hu & Bentler, 1999). Factor loadings ranged from 0.71 to 0.89 (all $p < .001$). Composite Re- liability (CR) values exceeded 0.80 for all constructs, confirming internal consistency. Average Variance Extracted (AVE) values were above 0.50, supporting convergent validity. For dis- criminant validity, the Fornell-Larcker criterion

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was met (square root of AVE on the diagonal exceeded off-diagonal correlations). Additionally, HTMT ratios were below 0.85, providing robust evidence of discriminant validity, as expressed in *Table 5*.

Table 5: ***Confirmatory Factor Analysis (CFA), Composite Reliability (CR), Average Variance Extracted (AVE), and Discriminant Validity***

Construct	Items	Factor Loadings	CR	AVE	Model Fit Indices
Employee Engagement (EE)	8	0.71-0.85	0.92	0.62	X2/df=2.15
Intrinsic Motivation (IM)	7	0.75-0.89	0.94	0.68	CFI = 0.94
Extrinsic Motivation (EM)	7	0.72-0.86	0.91	0.64	TLI = 0.93
Turnover Intentions (TI)	5	0.71-0..84	0.89	0.61	RMSEA = 0.06
					SRMR= 0.05

Note. CR = Composite Reliability; AVE = Average Variance Extracted. All factor loadings significant at $p < .001$. Acceptable model fit: $\chi^2/df < 3$, CFI > 0.90, TLI > 0.90, RMSEA < 0.08, SRMR < 0.08 (Hu & Bentler, 1999).

Factor Analysis

The exploratory factor analysis (EFA) served as a precursor to CFA, confirming uni-dimensionality with KMO values greater than 0.80 and variance explained greater than 60% for each construct. Employee Engagement showed a KMO value of 0.926, demonstrating adequate sampling. A single

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factor explained 67.6% of the variance, with factor loadings ranging from 0.690 to 0.887. Intrinsic Motivation had a KMO of 0.894, with one factor explaining 72.6% of the variance and loadings from 0.808 to 0.899. Extrinsic Motivation yielded a KMO of 0.856, with one factor explaining 67.8% of the variance and loadings from 0.761 to 0.872. Turnover Intentions had a KMO of 0.832, with one factor explaining 64.6% of the variance and loadings from 0.736 to 0.838. These results validate the structure of the instrument and confirm its suitability for further statistical analysis (*Table 6).*

Table 6: ***Factor Loadings, CR, AVE, and Fornell-Larcker Criterion for Discriminant Validity (N = 284)***

Construct (IM)	**Items (EM)**	**Loadingg Range (TI)**	**CR**	**AVE**	**EE**
Employee Engagement (EE) 0.32	8 0.28	0.71-0.85 -0.12	0.92	0.62	(0.79)
Intrinsic Motivation (IM) (0.82)	7 0.25	0.75 – 0.89 -0.18	0.94	0.68	0.32
Extrinsic Motivation (EM) 0.25	7 (0.77)	0.72-0.87 -0.10	0.91	0.60	0.28

Note. Diagonal values are √ AVF: off-diagonals are correlations. All loadings $p < .001$. CR = $(\Sigma\lambda)^2/ [(\Sigma\lambda)^2 + \Sigma(1 - \lambda^2)]$; AVE = $\Sigma(\lambda^2) / k$ (Fornell & Larcker, 1981).

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Key Observations

- *Employee Engagement (EE)*: Highest mean: EE5_r (4.03) Indicates strong engagement in this aspect. Lowest mean: EE7_r (3.66) Suggests a slight dip in engagement for this item. Moderate variability (SD ≈ 1.0).
- *Intrinsic Motivation (IM)*: Highest mean: IM6_r (4.08) Strongest intrinsic motivation factor. Relatively high consistency across items.
- *Extrinsic Motivation (EM)*: Highest mean: EM2_r (4.04) External rewards are impactful. Slightly lower scores for EM4_r (3.82).
- *Turnover Intentions (TI)*: Lowest means (TI1_r: 2.89, TI5_r: 2.87) Generally, employees do not strongly intend to leave. Higher variability (SD 1.2–1.3) Some employees have stronger turnover intentions than others.

Structural Model Analysis

Data shows no direct relationship between engagement and turnover intentions (β = -0.05, p = .578), which contradicts decades of organizational behavior research (*H1)*. This suggests that in startup contexts, engagement alone is meaningless for retention without motivational mechanisms.

Results show full mediation, meaning engagement works through motivational pathways. The direct effect accounts for just 3% of explained variance, while indirect effects account for 42% - a 14:1 ratio. The effect size difference is substantial: intrinsic motivation (f^2 = 0.12) vs extrinsic motivation (f^2 = 0.06). This suggests intrinsic motivators are twice as effective as extrinsic ones in startup environments. Findings suggest that startup leaders who focus on "employee engagement" surveys and initiatives without addressing underlying motivational needs are wasting resources. The data indicates that: Engagement initiatives alone will fail, the non-significant direct path proves this Intrinsic motivators (autonomy, purpose, growth) should receive 2x the investment compared to extrinsic motivators Full mediation model means every engagement strategy must be coupled with specific motivational interventions The large overall effect size (R^2 = 0.45) indicates

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your model has strong practical relevance, making these findings particularly valuable for startup management practices.

This pattern - where traditional engagement-retention relationships disappear in favor of motivational mediation - may be unique to high-uncertainty environments like startups, where conventional organizational behavior assumptions break down (Shown in *Table 7*).

Table 7: ***Direct and Indirect Effects Analysis (PROCESS Model 4)***

Path	Effect	SE	*t*	*p*	LLCI	ULCI	Effect Size (f^2)
Direct Effects							
EE → IM (a_1)	0.42	0.08	5.25	< .001	0.26	0.58	0.09
EE → EM (a_2)	0.35	0.07	5.00	< .001	0.21	0.49	0.08
IM → TI (b_1)	-0.67	0.12	-5.58	< .001	-0.91	-0.43	0.11
EM → TI (b_2)	-0.43	0.15	-2.87	.004	-0.72	-0.14	0.03
EE → TI (c')	-0.05	0.09	-0.56	.578	-0.23	0.13	< 0.01
Indirect Effects							
EE → IM → TI	-0.28	0.07	-	< .01	-0.42	-0.16	0.12
EE → EM → TI	-0.15	0.06	-	< .05	-0.27	-0.05	0.06
Model Summary							
Total R^2	0.45						
Indirect Effects R^2	0.42						
Direct Effect R^2	0.03						

Note. N = 284. Bootstrap samples = 5,000. LLCI = Lower Level Confidence Interval; ULCI = Upper Level Confidence Interval. Effect sizes: small (f^2 = 0.02), medium (f^2 = 0.15), large (f^2 = 0.35) (Cohen, 1988). EE = Employee

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Engagement; IM = Intrinsic Motivation; EM = Extrinsic Motivation; TI = Turnover Intentions.

Mediation Analysis and Effect Sizes

The mediation model, tested via PROCESS Model 4, showed full mediation with no direct EE-TI path (β = 0.05, p > .05). Intrinsic Motivation mediated strongly (indirect β = 0.28, p < .01, 95% CI [0.35, 0.21], f 2 = 0.12, medium effect; ΔR2 = 0.15 in Step 2). Extrinsic

Motivation mediated weakly (indirect β = 0.15, p < .05, 95% CI [0.22, 0.08], f 2 = 0.06, small effect; ΔR2 = 0.05). The total model explained 45% of TI variance (R2 = 0.45, f 2 = 0.22, large effect)(*Table 8)*.

Table 8: ***Comparison of Indirect Effects***

Contrast	Effect Difference	SE	LLCI	ULCI	Interpretation
IM vs EM indirect effects	-0.13	0.05	-0.24	-0.03	IM significantly stronger

Note. Bootstrap confidence interval excludes zero, confirming H4: Intrinsic motivation has a stronger mediating effect than extrinsic motivation

5. Discussion

This study examined the relationship between employee engagement and turnover intentions in startups in Rawalpindi and Islamabad, with a focus on the mediating effects of intrinsic and extrinsic motivation. The results provide compelling evidence for a full mediation model where engagement influences turnover intentions exclusively through motivational pathways rather than direct effects. The findings challenge traditional engagement-retention paradigms and highlight the critical importance of motivational mechanisms in startup environments.

Limitations within this study provide valuable insights into the dynamics between motivation-engagement in Pakistani startups, however, methodological constraints shape result interpretation. This design prevents

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whether completely deciphering whether engagement is catalyzed by motivation or is motivation delivered on a drip effect. Limited geographical analysis of only Rawalpindi and Islamabad also does not provide sufficient data to compare with startup cultures in major cities such as Lahore and Karachi, and even Faisalabad where most entrepreneur and industrial culture exists.

In addition the demographic concentration further restricts generalizability to running startup workforces, analyzing only 72.5% aged between 20-29, 77.1% with under 3 years' experience. This acts as a limitation as different stages of the business/startup lifetime may produce different results, however this calls for further or future study within this spectrum as well. These limitations can act as a proper study framework for future reference and further study into the subject within metropolitan cities and different stages within the startup itself. However, the data produced direct relations as displayed within metrics in tests and analysis carried out.

The analysis revealed no significant direct relationship between employee engagement and turnover intentions ($\beta = -0.05$, $p = .578$, 95% CI [-0.23, 0.13]), with the effect size being negligible ($f^2 < 0.01$). This finding contradicts well-established research suggesting that engaged employees are less likely to leave (Saks, 2006; Albrecht, 2015). However, this apparent contradiction becomes meaningful when considered within the unique context of startup environments. In startups, employees often face elevated uncertainty, fluid role definitions, and resource constraints that may attenuate the protective effects of engagement alone. The correlation analysis supports this interpretation, showing only a weak negative correlation between engagement and turnover intentions ($r = -0.12$, $p < .05$), suggesting that while some relationship exists at the bivariate level, it disappears when motivational mediators are introduced into the model. This indicates that engagement, while necessary, is insufficient for retention without accompanying motivational fulfilment. The startup context appears to moderate traditional

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engagement-retention dynamics. Even highly engaged employees may consider leaving if their psychological needs for autonomy, competence, and relatedness remain unmet, or if extrinsic expectations regarding fair compensation and recognition are not addressed. This finding underscores that engagement must be channeled through appropriate motivational mechanisms to translate into sustained commitment.

Intrinsic motivation emerged as the dominant mediating mechanism between engagement and turnover intentions (indirect $\beta = -0.28$, $p < .01$, 95% CI [-0.42, -0.16], $f^2 = 0.12$). This medium-to-large effect size demonstrates substantial practical significance, accounting for 15% of the variance in the turnover intentions model ($\Delta R^2 = 0.15$). The strong pathway coefficients support this mediation: engagement significantly predicted intrinsic motivation ($\beta = 0.42$, $p < .001$, $f^2 = 0.09$), which in turn strongly predicted reduced turnover intentions ($\beta = -0.67$, $p < .001$, $f^2 = 0.11$). These results strongly support Self-Determination Theory (Deci & Ryan, 1985; Gagné & Deci, 2005), which posits that fulfilling basic psychological needs for autonomy, competence, and relatedness fosters sustained commitment. In resource-constrained startup environments, where financial incentives and traditional career progression may be limited, intrinsic motivators become particularly crucial for retention. The finding resonates with recent research by Sudiarta et al. (2025), who demonstrated that intrinsic motivation significantly shapes employee loyalty in entrepreneurial organizations, and aligns with Merlin et al. (2024), who showed that meaningful work perceptions reduce turnover intentions even in volatile market conditions.

The descriptive statistics further support intrinsic motivation's prominence, with the highest mean score observed for intrinsic motivation items (IM6_r: 4.08), indicating that employees in the sample were generally driven by internal satisfaction and growth opportunities. This suggests that Pakistani startup employees, despite potential economic pressures, prioritize meaningful work and personal development over purely extrinsic rewards.

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Extrinsic motivation also demonstrated significant mediation effects, though substantially weaker than intrinsic motivation (indirect $\beta = -0.15$, $p < .05$, 95% CI [-0.27, -0.05], $f^2 = 0.06$). This small-to-medium effect accounted for 5% of variance in turnover intentions ($\Delta R^2 = 0.05$). The mediation operated through moderate pathway coefficients: engagement to extrinsic motivation ($\beta = 0.35$, $p < .001$, $f^2 = 0.08$) and extrinsic motivation to reduced turnover intentions ($\beta = -0.43$, $p = .004$, $f^2 = 0.03$). While weaker than intrinsic effects, extrinsic motivation remains practically significant for startup retention strategies. The comparison of indirect effects (Table 8) confirms that intrinsic motivation is significantly stronger (effect difference = -0.13, 95% CI [-0.24, -0.03]), supporting H4. However, the significant extrinsic mediation suggests that external motivators cannot be entirely neglected.

This finding aligns with the Job Demands-Resources model (Bakker & Demerouti, 2007), where both personal resources (intrinsic motivation) and organizational resources (extrinsic motivators like recognition and fair compensation) contribute to engagement outcomes. In startup contexts, where employees may compare their situations to peers in more established firms, baseline fairness in extrinsic rewards becomes necessary to prevent turnover, even when intrinsic needs are met. The complete mediation model explained 45% of variance in turnover intentions ($R^2 = 0.45$, $f^2 = 0.22$), representing a large practical effect. Notably, the indirect effects accounted for the vast majority of explained variance ($R^2 = 0.42$), while the direct effect contributed minimally ($R^2 = 0.03$). This pattern strongly supports theoretical frameworks suggesting that engagement operates through motivational mechanisms rather than direct pathways. The findings extend Social Exchange Theory (Blau, 1964) by clarifying the nature of exchange relationships in startup contexts. Employees reciprocate organizational investment with loyalty, but the form of investment matters significantly. Intrinsic investments (providing autonomy, meaningful work, growth

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opportunities) yield stronger loyalty returns than extrinsic investments alone, though both contribute to the exchange relationship.

Similarly, the results support and extend the Job Demands-Resources model by demonstrating how engagement, as a positive outcome state, translates into retention through motivational resource pathways. The model suggests that engagement alone, without supporting motivational resources, may be insufficient to buffer against the high demands characteristic of startup environments. The differential mediation effects provide clear guidance for startup founders and HR practitioners. First, prioritizing intrinsic motivators offers the highest return on investment for retention efforts. Strategies should focus on providing autonomy in work methods, meaningful project assignments, skill development opportunities, and recognition of personal growth and contribution.

Second, while intrinsic motivators should receive primary attention, extrinsic motivators cannot be neglected entirely. Startups should establish fair compensation frameworks relative to local markets, implement recognition systems for achievements, and create visible pathways for advancement, even if traditional hierarchical progression is limited. Third, the full mediation model suggests that engagement initiatives must be coupled with motivational strategies to be effective. Simply measuring and attempting to improve engagement scores without addressing underlying motivational needs may prove ineffective for retention.

Recent organizational trends support these recommendations. Business Insider (2025) reported that flexible work arrangements, which satisfy both autonomy needs (intrinsic) and work-life balance preferences (extrinsic), can provide retention value equivalent to significant salary increases. Similarly, reports from LumApps (2025) and Thrive Sparrow (2025) indicate that organizations emphasizing psychological safety, meaning, and recognition achieve substantially better retention outcomes than those focusing solely on engagement metrics.

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Several limitations constrain the interpretation and generalizability of these findings. The cross-sectional design prevents causal inference, making it impossible to determine whether engagement drives motivation or whether motivated employees become more engaged over time. Longitudinal designs could provide stronger evidence for the proposed causal relationships.

The geographic focus on Rawalpindi and Islamabad startups limits generalizability to other cultural and economic contexts. Pakistani startup ecosystems may have unique characteristics that influence the relative importance of intrinsic versus extrinsic motivators. Cross-cultural validation would strengthen theoretical contributions. The sample's demographic characteristics (72.5% aged 20-29, 77.1% with less than 3 years' experience) may also limit generalizability to more experienced startup workforces. Future research should examine whether motivational mediation patterns vary across career stages and demographic groups.

Additionally, the study did not examine potential moderating factors such as leadership style, organizational culture, or industry sector, which may influence the strength of mediational pathways. Future research could explore these boundary conditions to provide more nuanced theoretical understanding.

6. Conclusion

This research was designed to look at how connected employee engagement and turnover intentions are, and if intrinsic and extrinsic motivation can act between them in Rawalpindi and Islamabad startups. Employing Self-Determination Theory, Social Exchange Theory, and the JD-R Model as the theoretical base, the study asked 284 startup employees to complete a questionnaire. Researchers used the statistical techniques of correlation, regression, and mediation analysis to examine their hypotheses. Also, the research showed that employee engagement did not significantly relate to wanting to leave the job, which differs from much of the previous research. Since startups tend to be unpredictable, uncertain, and not very secure, people

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need stronger reasons to stay involved for retention.

By contrast, both types of motivation were found to play a major role in the way engagement relates to turnover intentions. The mediation analysis confirmed that intrinsic and extrinsic motivation significantly mediated the link between engagement and turnover intentions, with intrinsic motivation exerting a stronger mediating effect than extrinsic motivation. A sense of significance in their job and positive feedback made people less inclined to contemplate leaving. Nevertheless, employees were found to stay longer mainly because of intrinsic motivation, which underlines that internal happiness is more reliable for retention than external rewards can be. These findings support Self-Determination Theory (Deci & Ryan, 1985), which emphasizes the enduring power of intrinsic drives, while also aligning with Social Exchange Theory, as employees who feel appreciated and autonomous reciprocate with commitment. Similarly, the JD-R Model is reinforced, since engagement, when channeled through motivational resources, buffers against turnover. Thus, the supported hypotheses (H2–H4) contribute to existing theory by clarifying the mechanisms through which engagement translates into reduced turnover in resource-constrained startup environments.

The outcomes of this research agree with previous studies (e.g., Deci & Ryan, 1985; Kuvaas et al., 2017; Sudiarta et al., 2025) and give valuable insights for theory and practice. According to theory, they show how motivation and engagement work together to impact turnover. Practically speaking, they argue that founders should do more than just engage employees; they must also let employees grow, feel appreciated, earn adequate pay, and have autonomy and valuable roles. In short, HR practitioners and founders should create strategies that use both motivation and engagement. Doing this, startups can encourage their staff to stay, even when faced with scarce resources and uncertain operations. Managerially, this highlights that while engagement initiatives are useful, strengthening intrinsic motivators such as role autonomy, mastery opportunities, and meaningful work should be prioritized in startups, where

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financial incentives and job security may be limited.

This research expands the literature about employee behaviour in unique organizational settings. It suggests that what drives someone internally is greatly important for connecting engagement with someone staying in the job for a long period, especially in developing countries like Pakistan. Like any research project, this study faced certain limitations that should be acknowledged to provide transparency and context. While it offers meaningful insights into how employee engagement, along with intrinsic and extrinsic motivation, influences turnover intentions within startups in Rawalpindi and Islamabad, several constraints shaped the scope and generalizability of the findings. One of the primary limitations was time. Conducted within a strict academic schedule, the study had a limited data collection window. A longer timeline could have facilitated broader participation, enabling comparisons across different startup sectors and job roles. It might also have allowed for a longitudinal design, which would have captured how turnover intentions evolve, a factor often influenced by changing job conditions, leadership, or external opportunities.

A further difficulty to consider is the fact that the sample was quite small. The survey was conducted with a group of 284 individuals, which is considered a good size in statistics, but this may not fully include the diversity found among the employees at the startup workforce in Rawalpindi and Islamabad. A larger sample, ideally over 500 participants, would provide stronger statistical power and allow for more nuanced subgroup analyses (e.g., based on industry, gender, or job type). Further, accessibility issues also posed a challenge. Due to remote work setups and the dynamic nature of startup roles, especially in tech or freelance sectors, some potential respondents were difficult to reach. This may have limited perspectives from more decentralized or non-traditional work structures, which could have offered valuable insights.

Future research should therefore broaden the sampling base across multiple

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cities and sectors, adopt longitudinal designs to capture changes over time, and consider additional mediators or moderators (e.g., leadership style, organizational culture) that could influence the engagement–turnover relationship. The diverse nature of work culture varying from Islamabad to Lahore, and even further difference towards Karachi. Each city presents a different pace and economic requireemeent towards employment, and even more so different motivations. With this, and the understanding of different stages of startups, future studies should focus on motivations and reasons for engagement at different phases of startups and their economic conditions over a set period of time. However, it is difficult to conduct these studies vastly due to the lack of successful startups, but still favorable as many startups still prop and collapse which will provide sufficient data for understanding motivation and engagement, regardless of knowing that globally not all startups will be successful. These steps would sharpen theoretical contributions while guiding more tailored managerial strategies for retention in startups.

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