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Beyond compensation: Non-monetary factors influencing retention of highly skilled IT professionals in the 21st century digital age

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Abstract

This study explores non-monetary strategies employed by IT talent acquisition managers to retain niche employees in a highly competitive digital landscape. Focusing on factors such as work-life balance, organizational culture, and job design, the research adopts a qualitative pragmatic inquiry approach. It draws on the Job Characteristics Model, Job Characteristics Theory, and Expectancy Theory to examine how these factors influence long-term retention. Findings emphasize that successful retention strategies extend beyond traditional compensation models, with a focus on psychological empowerment, flexible work arrangements, and professional development opportunities. The study highlights the importance of creating an organizational culture that fosters knowledge sharing, innovation, and continuous learning. Results also indicate that work-life balance and career growth are key drivers of retention for niche IT talent. The research provides actionable insights for talent acquisition managers, suggesting that comprehensive retention strategies addressing both personal well-being and professional growth are essential for maintaining a skilled workforce. Despite methodological limitations, including a small sample size and reliance on self-reported data, the study contributes valuable knowledge to both academic and professional practice. It underscores the need for context-specific retention strategies to navigate the challenges of retaining specialized IT professionals in a rapidly evolving technological landscape.

Keywords: Talent retention, information technology, employee development, job characteristics, work-life balance, up-skilling, talent acquisition

Introduction

The information technology (IT) industry is changing rapidly, and IT organizations face the daunting challenge to retain niche employees with specialized skills critical to maintain a competitive edge. The hypercompetitive market for IT talent, characterized by high demand and a limited pool of professionals with niche expertise, has led to substantial costs associated with employee turnover, including recruitment expenses, lost productivity, and the need for extensive knowledge transfer (Lei *et al.*, 2021) ^[9]. This issue is particularly pressing in the 21st century digital age, where the shortage of individuals with specialized IT skills has become a significant concern for businesses across various sectors (Ozkan-Ozen & Kazancoglu, 2021) ^[13].

The retention of 21st century niche IT employees extends beyond traditional monetary compensation. Recent studies highlighted the complex interplay of factors that influence the decision of these highly skilled professionals to remain with an organization. Some of the influencing factors include opportunities for continuous learning and development (Steil *et al.*, 2022) ^[17], a supportive and innovative organizational culture (Lo *et al.*, 2022; Mazlan & Jambulingam, 2023) ^[10, 12], work-life balance (Panda & Sahoo, 2021) ^[14], and the chance to work on cutting-edge projects that challenge their skills and creativity (Becker & Huselid, 2006) ^[21].

Existing literature revealed a significant gap in understanding the specific strategies that IT talent acquisition managers employed to successfully retain niche employees beyond the critical two-year mark. While previous research explored various aspects of short to mid-term employee retention in the IT sector, there is a lack of focused studies on the long-term retention of niche IT professionals who possess rare and highly valued skillsets.

Through the process of a qualitative pragmatic inquiry approach, the study sought to uncover

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the nuanced and multifaceted approaches that organizations used to create an environment conducive to the elusive long-term retention needed of their most valuable IT talent. The research aimed to provide a comprehensive understanding of how non-monetary strategies can effectively support the retention efforts of niche IT employees. The theoretical foundation for the research was built upon the Job Characteristics Model (JCM; Hackman & Oldham, 1976)^[5], the Job Characteristics Theory (JCT; Hackman & Oldham, 1980)^[4], and Expectancy Theory (Vroom, 1964)^[19]. These frameworks provided a lens through which to examine how job design, psychological states, and motivation interact to influence the retention of niche IT employees.

The aim of the study was to contribute valuable insights to both academic literature and professional practice; therefore, it was focused on discovering the successful strategies employed by IT organizations to retain niche IT talent. The findings will enhance IT organizations' understanding of the factors that drive retention among highly specialized IT professionals and also provide actionable recommendations for IT talent acquisition managers seeking to build and maintain a stable, skilled workforce in an increasingly competitive technological landscape.

Work-Life Balance

Work-life balance was a critical factor influencing employee retention in high-demand sectors such as information technology (IT). The research findings showed that fostering a positive company culture and offering career development opportunities significantly contributed to employee loyalty. According to a 2022 SHRM survey, while 93% of IT professionals valued working for reputable companies, more than half were simultaneously exploring job opportunities within the same year. The research findings indicated that work-life-balance organizational characteristics often trumped the reputation characteristic of the 21st century IT organizations.

Empirical research illuminated the pivotal role of psychological empowerment in connecting work-life balance to employee retention. Panda and Sahoo's 2021^[14] study demonstrated that employees who felt psychologically empowered exhibited substantially stronger job commitment and were more likely to remain with their organizations. Complementing this insight, Netherlands-based research by Bouwmeester *et al.* (2021)^[2] revealed the effectiveness of comprehensive work-life balance strategies. The strategies revealed included strategic monitoring to stay abreast of the strategies meeting their intended purposes, innovative compensation approaches that successfully maintained positive employee perceptions, even amid intense workplace pressures, and targeted outsourcing to increase fit success with candidate-role matching. The research findings supported the notion that IT organizations who created environments that fostered psychological empowerment and took a holistic approach to addressing employee needs, reduced their risk of workforce attrition. Flexible work arrangements, remote work options, and supportive organizational policies emerged as key strategies that enhanced employee engagement and retention (Zainal *et al.*, 2022)^[20]. Collectively, these findings underscored the critical importance of work-life balance in building strong employer brands and mitigating workforce turnover.

Work-life balance emerged as a multidimensional construct within organizational performance literature, characterized

by strategic flexibility and holistic employee engagement strategies. An analysis of the literature revealed that work-life balance extended beyond traditional compensation models, and included incorporating job rotation, role expansion, and adaptive organizational practices. Several participant interviews highlighted flexibility as a critical component of employee motivation, with participants emphasizing the importance of role expansion and compensation alignment. Theoretically grounded in the job characteristics theory (Hackman & Oldham, 1976)^[5], the research findings suggested that work-life balance integrated extrinsic rewards with intrinsic job design elements. Sorn *et al.*'s (2023)^[16] meta-analysis further substantiated this perspective, demonstrating that motivational strategies varied across industries and required nuanced, context-specific implementations. The emerging framework posited work-life balance as a complex interplay between organizational structure, individual employee needs, and strategic talent management. Notably, the findings underscored the necessity of moving beyond linear compensation approaches, advocating for comprehensive strategies that simultaneously addressed professional development, job satisfaction, and personal well-being. Future research is recommended to empirically validate these insights across diverse organizational contexts and employee demographics, potentially developing more sophisticated, adaptive work-life balance intervention models.

Culture

Company culture, defined by the behaviors, attitudes, and norms within an organization, played a pivotal role in organizational success, especially in the IT sector where retaining specialized talent was essential. It fostered knowledge sharing and innovation, critical drivers of competitive advantage.

Organizational culture emerged as a critical determinant of competitive advantage in knowledge-intensive sectors, particularly within information technology (IT) environments. Empirical research revealed nuanced insights into how cultural dynamics influence organizational performance and workforce engagement. Studies by Azeem *et al.* (2021)^[1] and Urrutia Pereira *et al.* (2022)^[18] demonstrated that organizational culture positively correlates with knowledge sharing, innovation, and employee engagement, challenging simplistic assumptions about organizational commitment.

The research unveiled complex interactions between cultural dimensions and workforce dynamics. Key findings highlighted that high work engagement did not necessarily translate directly into reduced turnover intentions. Cultural elements such as continuous learning opportunities and an outward-facing organizational perspective emerged as particularly influential in shaping employee experiences and organizational effectiveness.

Organizational changes significantly impacted workplace dynamics, as illuminated through Vroom's (1964)^[19] expectancy theory. Leadership-initiated transitions fundamentally disrupted employee motivation by challenging psychological constructs of expectancy, instrumentality, and valence. Hennessey (2024)^[8] and Postelnyak (2024)^[15] emphasized transparent communication's critical role in managing these transitions, revealing how unilateral changes could precipitate systemic organizational disengagement.

Theoretically, these findings extended understanding of organizational culture as a dynamic, psychologically mediated construct. The research underscored how leadership practices, communication strategies, and employees' perceived organizational agency critically influence workplace transformation processes. By providing empirical evidence of cultural attributes' strategic potential, the study offered valuable insights for organizational leaders seeking to develop adaptive frameworks that support innovation, engagement, and sustained performance in dynamic technological environments.

Theoretical Framework

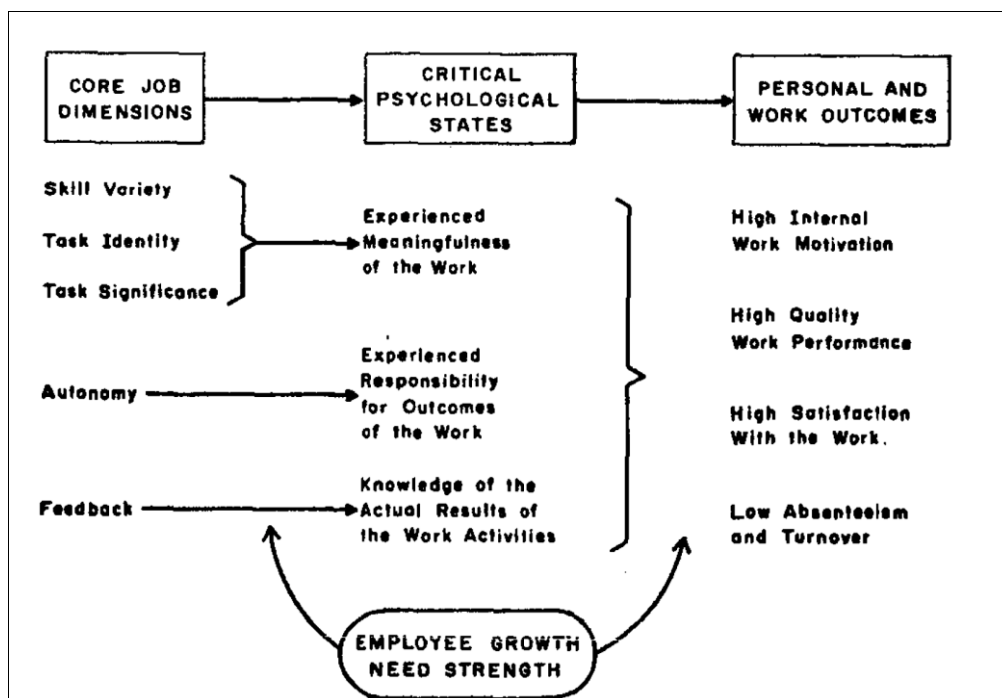
This study is underpinned by the job characteristics model (JCM; Hackman & Oldham, 1976)^[5], the job characteristics theory (JCT; Hackman & Oldham, 1980)^[4], and expectancy theory (Vroom, 1964)^[19].

Job Characteristics Model

The Job Characteristics Model (JCM) offers a compelling theoretical lens for understanding employee retention strategies in the niche IT sector by systematically linking job design to critical psychological states and work outcomes. By emphasizing core job dimensions such as skill variety, autonomy, and feedback, the model provides a nuanced framework for explaining how strategic job design can directly influence employee motivation, satisfaction, and performance, key factors in mitigating turnover among specialized IT professionals. The model's empirical validation through cross-cultural research and meta-analyses (Huang & Van de Vliert, 2003; Fried & Ferris, 1987)^[22, 3] strengthens its applicability, suggesting that deliberately crafting roles with high Motivating Potential Scores (MPS) could serve as an effective retention mechanism. Specifically for niche IT employees, who often require complex, intellectually stimulating work environments, the

JCM's principles of incorporating task significance, task identity, and opportunities for skill utilization can address the psychological needs that drive engagement and commitment in highly specialized technological roles. By triangulating the model's insights with the unique characteristics of the IT workforce, organizations can develop targeted job redesign strategies that not only attract top talent but also create sustainable work environments that foster long-term professional satisfaction and organizational loyalty.

The JCM's framework can be extended to understand how job design intersects with work-life balance, suggesting that roles with high motivating potential not only enhance intrinsic motivation but also create opportunities for greater workplace flexibility and personal autonomy. This perspective aligns closely with the participants' emphasis on "flexibility" and "job rotation" as key retention strategies, indicating that work-life balance is not merely a peripheral concern but a vital component of comprehensive employee engagement. By incorporating flexibility into job design such as remote work options, flexible scheduling, and meaningful task allocation organizations can address the psychological needs identified in the JCM, simultaneously supporting employee well-being and professional satisfaction. The nuanced interplay between compensation, job characteristics, and work-life balance suggests that retention strategies must move beyond traditional monetary incentives, creating holistic work environments that recognize the complex motivational needs of skilled IT professionals. Empirical evidence from cross-cultural studies (Huang & Van de Vliert, 2003)^[22] further reinforces this approach, demonstrating that job design elements that support work-life balance can significantly mediate the relationship between job characteristics and critical psychological states like experienced meaningfulness and perceived responsibility. (See Figure 1.)



Source: Conceptual view of Hackman and Oldham's (1976)^[5] job characteristics model. Adapted from *Work Redesign* (p. 256), by J. R. Hackman and G. R. Oldham, 1980^[4], Addison Wesley. Copyright 1976 by Academic Press, Inc.

Fig 1: Job Characteristics Model

Job Characteristics Theory

The Job Characteristics Theory (JCT) offered a nuanced framework for understanding the intricate relationships between job design, work-life balance, and organizational culture, as evidenced by the research participants' multifaceted insights. The participants' emphasis on "flexibility" and "job rotation" revealed a critical intersection between job characteristics and work-life balance, suggesting that modern employees, particularly in IT sectors, viewed job design as a holistic concept that extended beyond traditional role boundaries. The participants' explicit mention of flexibility directly aligned with the JCT's dimensions of autonomy and skill variety, highlighting how work-life balance was increasingly integrated into core job characteristics. Cross-cultural research by Huang and Van de Vliert (2003) [22] further substantiated this perspective, demonstrating that the psychological states identified in JCT experienced meaningfulness, responsibility, and knowledge of results were moderated by cultural contexts, indicating that job design strategies needed to be adaptive to diverse cultural environments. The nuanced interplay between extrinsic rewards and intrinsic motivators emerged as a critical

cultural consideration, with participants emphasizing the importance of "role expansion" and compensation as interconnected elements of job satisfaction.

The research findings on job design, flexibility, and work-life balance aligned with the JCT's framework of understanding motivation as a complex, multidimensional construct that transcended simple monetary incentives. Han *et al.* (2020) provided empirical support, revealing how job characteristics acted as a critical moderator between leadership approaches and performance across different cultural contexts. Moreover, the research findings suggested that work-life balance was not a peripheral benefit but a fundamental aspect of job design, with participants consistently highlighting the importance of roles that provided personal and professional fulfilment. Sorn *et al.* (2023) [16] meta-analysis further reinforced this perspective, demonstrating that the relationship between compensation and motivation varied across industries and cultural contexts, underscoring the need for a sophisticated, culturally sensitive approach to job design that integrated work-life balance, intrinsic motivators, and organizational flexibility in the 21st Century Digital Age. (see Figure 2).

$$\text{Motivating Potential Score (MPS)} = \left[\frac{\text{Skill Variety} + \text{Task Identity} + \text{Task Significance}}{3} \right] \times \text{Autonomy} \times \text{Feedback}$$

Source: Conceptual view of Hackman and Oldham's (1980) job characteristics theory. From *Work Redesign* (p. 258), by J. R. Hackman and G. R. Oldham, 1980 [4], Addison Wesley. Copyright 1976 by Academic Press. Inc.

Fig 1: Job Characteristics Theory Framework

Expectancy Motivation Theory

Expectancy Motivation Theory, developed by Vroom (1964) [19], provided a comprehensive framework for understanding the intricate dynamics of workplace motivation and employee retention, particularly in specialized sectors like information technology. The theory's core components expectancy, instrumentality, and valence offered profound insights into the cognitive processes that drove employee behavior and engagement.

In the context of the research findings, Expectancy Motivation Theory demonstrated remarkable applicability to talent retention strategies. The theory's three key components aligned closely with the empirical insights gathered from the interview participants. Expectancy (the belief that effort led to performance) resonated with participants' emphasis on creating meaningful work environments that provided clear performance pathways. Instrumentality (the belief that performance resulted in rewards) correlated with the study's findings on transparent communication and performance management. Valence (the value placed on outcomes) directly reflected the importance of psychological empowerment and professional development highlighted by the participants.

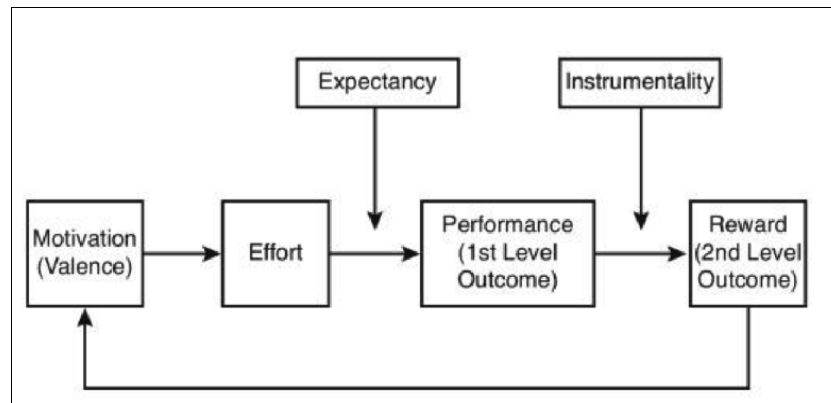
The integration of Expectancy Motivation Theory with Job Characteristics Theory provided a robust theoretical lens for understanding employee retention. By examining the interplay between job design, psychological states, and motivational expectations, the research illuminated how organizations could create environments that simultaneously met structural and psychological needs of specialized talent. Participants' strategies demonstrated direct alignment with Vroom's theoretical framework. For instance, the emphasis on building strong relationships and fostering open

communication positively influenced all three components of expectancy theory. The focus on creating atmospheres where employees could "express their passion" enhanced valence, while transparency initiatives strengthened both expectancy and instrumentality. The daily nature of relationship building corresponded with the dynamic, cognitive-driven nature of the theory.

The research findings underscored that effective retention strategies transcended traditional monetary incentives. Instead, they required a nuanced approach that addressed psychological engagement, professional growth, and meaningful work experience. Expectancy Motivation Theory provided a sophisticated framework for understanding these complex motivational mechanisms, offering managers a strategic approach to talent retention.

By prioritizing clear expectations, establishing robust performance-outcome links, and creating environments that generated valued outcomes, organizations could effectively leverage the principles of Expectancy Motivation Theory. This approach not only enhanced employee motivation but also created sustainable retention strategies tailored to the unique challenges of specialized workforce sectors like information technology.

The theoretical connections revealed in the study demonstrated that motivation was a multifaceted construct deeply rooted in individual perceptions, organizational practices, and the intricate relationship between effort, performance, and meaningful rewards. As organizations continued to navigate increasingly competitive talent landscapes, understanding and applying these theoretical insights can be valuable for developing adaptive, employee-centric retention strategies. (see Figure 3).



Source: Vroom's expectancy theory (VIE). Adapted from "Organizational Behavior in Health Care" (p. 130), by N. Borkowski, 2011, Jones & Bartlett Learning. In the public domain.

Fig 3: Vroom's expectancy Theory

Conclusion

The study illuminated the multifaceted nature of talent retention in the IT sector, challenging traditional perspectives that prioritized monetary compensation. Grounded in the Job Characteristics Model (JCM; Hackman & Oldham, 1976) [5], job characteristics theory (JCT; Hackman & Oldham, 1980) [4] and Expectancy Theory (Vroom, 1964) [19], the research revealed that successful retention strategies transcended financial incentives.

The key findings highlighted the profound impact of non-monetary factors, demonstrating that effective talent retention involved a comprehensive approach. These factors included flexible work arrangements, an innovation-driven culture, psychological empowerment, continuous performance management, diverse professional development approaches, strategic job autonomy, and meaningful task assignment aligned with individual skills.

Theoretical connections emerged strongly, substantiating Vroom's expectancy theory by demonstrating how perceived value and anticipated outcomes significantly influenced employee motivation and retention. The Job Characteristics Model's principles were reinforced through emphasis on task significance, skill variety, and autonomy, providing a robust theoretical framework for understanding workplace engagement.

For organizations navigating the competitive IT talent landscape, the research offered actionable strategies. These included creating adaptive, employee-centric work environments, prioritizing transparent communication, designing roles that provided meaningful and challenging work, investing in continuous professional development, and fostering a culture of innovation and psychological empowerment.

While providing valuable insights, the study acknowledged its limitations, including a focused sample of participants from the IT sector. To address these constraints, future research is recommended to expand investigation across diverse industries, explore longitudinal effects of retention strategies, conduct comparative studies in different organizational contexts, and develop quantitative models to validate qualitative findings.

The research underscored a fundamental paradigm shift in understanding talent retention. Successful strategies were less about compensation and more about creating workplaces that nurtured professional growth, provided meaningful challenges, and respected individual potential.

In the rapidly evolving digital age, organizations that embrace this holistic approach would be best positioned to attract, retain, and maximize their most valuable asset which is their talent.

As businesses confront escalating talent shortages, this study offered a strategic blueprint for securing workforce stability. By recognizing retention as a complex process involving psychological, professional, and organizational dimensions, companies could develop more effective and sustainable approaches to managing and engaging their workforce.

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