

## **IDENTIFYING THE IMPACT OF JOB CHARACTERISTICS ON JOB SATISFACTION OF FREELANCE WORKERS IN THE IT INDUSTRY**

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### **ABSTRACT**

*The rapid growth of the digital economy has significantly increased the number of freelance workers in the information technology (IT) industry, reshaping traditional employment relationships and work structures. Despite the expanding presence of freelance professionals in global labor markets, limited empirical research has examined the factors influencing their job satisfaction. Drawing on the Job Characteristics Model, this study investigates the impact of core job characteristics autonomy, skill variety, task identity, task significance, and feedback on the job satisfaction of freelance workers in the IT sector in Pakistan. This study used a quantitative research design using a cross-sectional survey method. Primary data were collected from freelance IT professionals through a structured questionnaire. A total of 118 responses were obtained and analyzed using statistical techniques, including descriptive analysis and PLS-SEM to examine the relationships among variables. The findings reveal that skill variety and task identity have a significant positive influence on job satisfaction among freelance IT workers. However, other job characteristics such as autonomy, task significance, and feedback demonstrate weaker or non-significant relationships with job satisfaction. The study contributes to the literature by extending the Job Characteristics Model to freelance work arrangements within the IT industry. It also provides practical implications for digital platforms, project managers, and organizations to emphasize effective job design in freelance work settings.*

**Keywords:** *Job Characteristics, Job Satisfaction, Freelance Workers, IT Industry, Gig Economy, Job Design.*

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## **INTRODUCTION**

The global labor market has experienced massive structural changes over the past decade due to rapid technological advancement, digitalization, and the emergence of digital platform-based economies. One of the most significant transformations is the expansion of freelance employment, particularly in skill intensive sectors such as the information technology (IT) industry. Freelance workers are independent professionals who provide services on a project or contract basis without long-term organizational association and have become an integral component of modern workforce strategies. Organizations increasingly rely on freelance professionals to access specialized skills, reduce operational costs, and enhance organizational flexibility in a dynamic environment (Dunn & Kalleberg, 2016; Wood, Graham, Lehdonvirta, & Hjorth, 2019). This trend has been further augmented by digital labor platforms such as Upwork, Fiverr, and Freelancer, which facilitate remote collaboration and enable firms to tap into global talent pools.

The rise of freelance employment has reshaped traditional employer–employee relationships, replacing stable long-term employment contracts with flexible and project based arrangements (Watson et al., 2021). While this shift offers benefits such as autonomy, flexibility, and access to diverse work opportunities, it also introduces new challenges related to job security, work stability, and job satisfaction (Kalleberg, 2011; Sutherland & Jarrahi, 2018).

Job satisfaction, defined as the extent to which individuals feel positively or negatively about their work experiences, remains a critical determinant of worker well-being and productivity (Judge, Thoresen, Bono, & Patton, 2001). Understanding the factors that influence job satisfaction among freelance professionals is therefore essential for organizations, managers, and policymakers seeking to support sustainable and effective freelance work environments.

Among the theoretical frameworks developed to explain employee attitudes toward work, the Job Characteristics Model (JCM) remains one of the most influential models in organizational behavior and human resource management research (Parker, Morgeson, & Johns, 2017). The model proposes that specific features of job design shape employees' psychological experiences at work, which subsequently influence motivational outcomes such as job satisfaction. According to Hackman and Oldham (1976), five core job characteristics, including skill variety, task identity, task significance, autonomy, and feedback, are fundamental determinants of work motivation and

satisfaction. These job characteristics affect three critical psychological states: experienced meaningfulness of the work, experienced responsibility for outcomes, and knowledge of results. When these psychological states are present, employees are more likely to experience higher intrinsic motivation, job satisfaction, and work effectiveness.

Extensive empirical research has validated the Job Characteristics Model across diverse organizational settings and industries. Studies have consistently demonstrated that improved job design, characterized by greater autonomy, meaningful work, and opportunities to use diverse skills, contributes significantly to higher levels of employee satisfaction and engagement (Humphrey, Nahrgang, & Morgeson, 2007). For instance, skill variety enables employees to utilize multiple competencies and prevents monotony in work tasks, while task identity allows individuals to complete a whole and identifiable piece of work, enhancing feelings of accomplishment. Similarly, autonomy provides employees with freedom in scheduling and executing tasks, fostering a sense of ownership and responsibility over work outcomes (Oldham & Fried, 2016). Feedback from the job itself or from supervisors helps employees understand their performance effectiveness, thereby strengthening motivation and job satisfaction.

Despite the extensive application of the Job Characteristics Model in traditional organizational contexts, its applicability to freelance employment remains relatively underexplored. Freelance work differs significantly from conventional employment arrangements in several ways, including the absence of long-term organizational commitment, reduced supervisory oversight, and greater reliance on self-management (Sutherland & Jarrahi, 2018). As a result, the factors influencing job satisfaction among freelancers may differ from those affecting employees in permanent roles. For example, freelancers often operate with high levels of autonomy due to the independent nature of their work (Hsieh et al., 2022). While autonomy is generally considered a positive job characteristic in traditional employment settings (Wood et al. 2019), its influence on satisfaction may vary among freelancers who already expect independence as a basic feature of their work arrangement.

Furthermore, freelancers frequently engage in project-based assignments that require them to collaborate with multiple clients and organizations. This dynamic work environment may influence the relevance of job characteristics such as feedback, task significance, and task identity

(Massoni, et al., 2019). In some cases, freelancers may receive limited feedback due to minimal interaction with clients or supervisors, potentially reducing the motivational impact of this job characteristic. Similarly, the fragmented nature of project-based work may limit freelancers' ability to experience task identity or perceive the broader significance of their contributions (Wood et al., 2019). These differences highlight the need to reexamine existing job design theories within the context of freelance work arrangements.

The IT industry provides a particularly relevant context for studying freelance employment. Over the past two decades, the global IT sector has experienced rapid growth driven by digital transformation, technological innovation, and the expansion of online services (Watson et al., 2021). As organizations increasingly adopt agile development models and project-based work structures, the demand for freelance IT professionals such as software developers, programmers, web designers, and data analysts has grown substantially (Kässi & Lehdonvirta, 2018). Freelance IT professionals often work remotely and collaborate with clients across geographic boundaries, contributing to the development of a global digital labor market.

In emerging economies, freelance employment in the IT sector has become an important avenue for economic participation and income generation (Watson et al., 2021). Countries such as Pakistan, India, and the Philippines have emerged as significant contributors to the global online labor market due to the availability of skilled IT professionals and competitive service costs (Kässi & Lehdonvirta, 2018). Pakistan, in particular, has witnessed a notable increase in freelance participation, with many professionals offering IT-related services on digital platforms. The country has consistently ranked among the top freelance markets globally, particularly in software development, digital marketing, and creative design services. This expansion has created new opportunities for skilled workers but has also raised questions regarding the quality of freelance work experience and the factors that contribute to job satisfaction among this growing workforce segment.

Despite the economic significance of freelance employment in the IT sector, empirical research examining the work experiences of freelance professionals in emerging economies remains limited (Ali et al., 2014). Most existing studies focus on traditional employees within organizational settings, leaving a gap in understanding how job design influences job satisfaction among

freelancers who operate outside formal organizational structures. Additionally, while some research has examined broader aspects of freelance work, such as virtual governance and digital labor conditions, relatively few studies have applied established organizational theories, such as the Job Characteristics Model, to freelance employment contexts.

Another limitation in the existing literature is the lack of context-specific research examining freelance work in developing countries. Labor market structures, institutional frameworks, and cultural norms can significantly influence workers' perceptions of job satisfaction and work quality. In developing economies, where formal employment opportunities may be limited and social protection mechanisms are weaker, freelance work may represent both an opportunity and a necessity for skilled professionals. Consequently, the factors shaping job satisfaction among freelancers in these contexts may differ from those identified in developed economies (Wood et al., 2019).

Similarly, Pakistan has emerged as one of the fastest-growing contributors to the global freelance economy. Despite the rapid growth of freelance work in Pakistan's IT ecosystem, scholarly research examining the determinants of job satisfaction among freelance professionals remains limited. Most existing studies in the Pakistani labor context have traditionally focused on employees working within formal organizational structures, often overlooking independent professionals operating through digital platforms. Freelance workers frequently experience unique working conditions characterized by high autonomy but also uncertain workloads, fluctuating income streams, and limited organizational support (Ali et al., 2014). These dynamics may significantly shape how core job characteristics influence their overall job satisfaction (Buddelmeyer et al., 2015). Consequently, examining freelance IT professionals in Pakistan provides an important contextual extension to existing job design and satisfaction literature while contributing insights into how traditional organizational theories operate within emerging digital labor markets.

Addressing these gaps is particularly important because job satisfaction among freelance professionals has significant implications for both individuals and organizations (Ali et al., 2014). For freelancers, higher job satisfaction is associated with greater well-being, career sustainability, and long-term professional commitment (Blanz, 2017). Dissatisfied freelancers, on the other hand,

may experience burnout, reduced productivity, or withdrawal from freelance markets (Buddelmeyer et al., 2015). For organizations and managers, understanding the drivers of freelancer satisfaction can help improve collaboration outcomes, enhance service quality, and build long-term relationships with skilled freelance workers.

As digital labor markets continue to expand, scholars increasingly emphasize the need to revisit and adapt traditional theories of work motivation and job design to reflect the realities of modern labor markets (Parker, Morgeson, & Johns, 2017). Applying the Job Characteristics Model to freelance employment provides an opportunity to test its relevance in non-traditional work settings and identify potential variations in the relationships between job characteristics and job satisfaction.

Considering these factors, this study aims to explore how job characteristics influence job satisfaction among freelance workers in the IT industry. Specifically, it looks at how the five core dimensions of the Job Characteristics Model, skill variety, task identity, task significance, autonomy, and feedback affect freelancers' satisfaction with their work.

## **LITERATURE REVIEW**

### ***Job Design and Job Satisfaction***

Job satisfaction has been widely recognized as a central concept in organizational behavior and human resource management studies. It refers to an individual's overall evaluation of their job experiences and emotional responses toward work. Scholars argue that job satisfaction significantly influences employee motivation, productivity, commitment, and retention across industries (Van den Born & Van Witteloostuijn, 2013). As organizations increasingly rely on knowledge-based and digital labor, understanding the factors that shape job satisfaction has become particularly important for sustaining workforce engagement and performance.

Among the various theoretical frameworks developed to explain employee motivation and satisfaction, the Job Characteristics Model (JCM) proposed by Hackman and Oldham remains one of the most influential job design theories. The model posits that specific characteristics embedded within a job influence employees' psychological contract, which subsequently affects work outcomes such as job satisfaction, internal motivation, and job performance. According to this model, five core job dimensions skill variety, task identity, task significance, autonomy, and

feedback shape employees' experiences of meaningfulness, responsibility, and knowledge of results, ultimately determining their level of satisfaction and motivation.

The JCM suggests that jobs designed with higher levels of these characteristics generate stronger intrinsic motivation and greater job satisfaction among workers. For example, jobs that require multiple skills (skill variety) or allow employees to complete an identifiable piece of work (task identity) tend to enhance feelings of meaningfulness. Similarly, autonomy increases employees' sense of responsibility (Wood et al., 2019), while feedback provides knowledge about performance effectiveness. Collectively, these psychological states influence individuals' attitudes toward their jobs and organizations.

Over the decades, the Job Characteristics Model has been extensively validated across different industries, including manufacturing, hospitality, healthcare, and information technology sectors. Empirical research consistently demonstrates that employees performing jobs with enriched characteristics report higher levels of satisfaction and motivation. For instance, studies applying the model have shown that dimensions such as autonomy and feedback are particularly strong predictors of job satisfaction in professional and knowledge-based occupations.

However, the transformation of work structures due to digital technologies and the rise of remote work arrangements has raised questions regarding the applicability of traditional job design theories to modern forms of employment, such as freelance work. Contemporary scholars argue that while the core principles of the Job Characteristics Model remain relevant, the nature of job characteristics may be demonstrated differently in flexible and platform based work environments.

### ***Freelancing in the Digital Economy***

The global labor market has witnessed a transformation due to technological advancements, digital platforms, and the expansion of the virtual economy. Freelancing, once considered a marginal form of employment, has become a mainstream career option for many professionals, particularly in the information technology (IT) sector. Digital platforms enable organizations to access global talent pools while allowing workers to engage in flexible and remote work arrangements.

Freelance work is generally characterized by project-based engagements, independent contracting, flexible schedules, and the absence of long-term organizational attachment (de Graaf-Zijl, 2000).

Unlike traditional employees, freelancers operate as self-employed professionals who provide services to multiple clients simultaneously. This work arrangement has gained popularity among IT professionals due to the increasing demand for specialized digital skills and the growing availability of online work platforms.

Scholars have highlighted several advantages associated with freelance work, including greater autonomy, flexible working hours, and opportunities for skill development across diverse projects (Massoni, et al., 2019). These characteristics can potentially enhance workers' intrinsic motivation and job satisfaction. For instance, freelancers often experience higher levels of autonomy in determining how, when, and where work is performed, which aligns with one of the key components of the Job Characteristics Model.

Nevertheless, freelance work also presents several challenges. Freelancers frequently encounter uncertain income streams, limited job security, the absence of organizational support, and high levels of competition within digital labor markets (Wilkin et al., 2013). Additionally, freelancers must manage multiple roles simultaneously, including project management, marketing, and client communication. These factors can influence their psychological experiences of work and, consequently, their job satisfaction.

Recent research on digital labor markets indicates that freelancers must continuously adapt their work strategies to secure projects and maintain client relationships. Workers often balance standardized work processes with personalized interactions to improve job acquisition and project success. Such strategies influence freelancers' productivity, revenue generation, and overall work satisfaction.

These dynamics highlight the need to re-examine traditional job design theories within the context of freelance work environments, particularly in knowledge-intensive industries such as IT.

### ***Job Characteristics and Job Satisfaction***

The relationship between job characteristics and job satisfaction has been extensively examined in organizational behavior literature. Numerous empirical studies have confirmed that jobs designed with meaningful tasks, autonomy, and performance feedback significantly enhance employee

satisfaction and motivation (Massoni, et al., 2019). The subsequent section highlights the literature on various dimensions of job characteristics:

### ***Skill Variety***

Skill variety refers to the degree to which a job requires employees to use multiple skills, talents, and competencies to complete their tasks. Jobs that involve diverse activities prevent monotony and enable employees to apply their abilities creatively. Research suggests that higher levels of skill variety enhance employees' sense of competence and engagement, thereby increasing job satisfaction.

In knowledge-intensive industries such as IT, skill variety is important because professionals often perform complex tasks that require analytical thinking, problem-solving, and technical expertise. Freelance IT workers frequently engage in diverse projects involving software development, system design, data analysis, and digital marketing. Such diversity may contribute positively to their job satisfaction by providing opportunities for learning and professional growth. The opportunity to engage in varied tasks may enhance freelancers' intrinsic motivation and satisfaction with their work. Previous studies have consistently found a positive relationship between skill variety and job satisfaction (Humphrey et al., 2007). Hence, we propose that:

*H1: Skill variety has a positive and significant relationship with job satisfaction among freelance IT workers*

### ***Task Identity***

Task identity is the extent to which a job involves completing a whole and identifiable piece of work from beginning to end. When employees can see the tangible outcomes of their efforts, they are more likely to perceive their work as meaningful.

In freelance work settings, task identity is established through project-based assignments where freelancers are responsible for delivering complete solutions to clients. For instance, a freelance software developer may design, code, test, and implement an entire application. Such experiences can enhance workers' sense of accomplishment and satisfaction.

Research indicates that employees who perceive strong task identity tend to exhibit higher levels of commitment and intrinsic motivation. This is because completing identifiable tasks allows

workers to recognize the direct impact of their contributions. Empirical research suggests that employees who experience higher task identity report stronger levels of job satisfaction and work engagement (Oldham & Fried, 2016). Hence, our second hypothesis is proposed as:

*H2: Task identity has a positive and significant relationship with job satisfaction among freelance IT workers.*

### ***Task Significance***

Task significance is explained as the degree to which a job affects the lives or work of other individuals. Jobs that contribute positively to organizations, communities, or society tend to generate stronger feelings of purpose and satisfaction among workers (de Graaf-Zijl, 2012).

In the IT industry, task significance may be reflected in projects that improve business operations, enhance digital infrastructure, or create innovative technological solutions (Hustad & Olsen, 2022). Freelancers contributing to impactful projects may experience greater job satisfaction due to the perceived value of their work. Studies across various industries suggest that employees who believe their work has a meaningful societal or organizational impact report higher levels of motivation and satisfaction. Prior research has found that task significance positively influences employee attitudes and job satisfaction (Grant, 2008). The third hypothesis of this study, hence, postulates that:

*H3: Task significance has a positive and significant relationship with job satisfaction among freelance IT workers.*

### ***Work Autonomy***

Autonomy is one of the most critical components of the Job Characteristics Model and refers to the degree of freedom employees have in scheduling their work and determining the procedures used to perform tasks (Wood et al., 2019). Autonomy allows individuals to exercise control over their work processes and make independent decisions regarding task execution.

Freelancers typically experience higher levels of autonomy compared to traditional employees (de Graaf-Zijl, 2000). They can choose their clients, determine work schedules, and select projects aligned with their interests and expertise. This flexibility often contributes to higher levels of intrinsic motivation and job satisfaction.

Research consistently demonstrates that autonomy is strongly associated with positive job outcomes, including satisfaction, creativity, and performance (de Graaf-Zijl, 2012, 2000). Workers who perceive greater autonomy tend to feel more responsible for their work outcomes and are more motivated to perform effectively. However, autonomy may also require strong self-management skills. Freelancers who struggle with time management, work organization, or client communication may experience stress despite having high levels of autonomy. Prior studies have identified autonomy as one of the strongest predictors of job satisfaction (Morgeson & Humphrey, 2006). The fourth hypothesis of this study is proposed as follows:

*H4: Autonomy has a positive and significant relationship with job satisfaction among freelance IT workers.*

### ***Feedback***

Feedback refers to the degree to which a job provides direct and clear information about performance effectiveness. Regular feedback allows employees to evaluate their work outcomes, identify areas for improvement, and maintain motivation. In traditional organizational settings, feedback is typically provided by supervisors or managers through performance evaluations. In freelance environments, feedback often comes from clients, platform ratings, or project outcomes.

Digital freelance platforms frequently incorporate rating systems and client reviews that influence freelancers' reputations and future job opportunities. Such mechanisms provide immediate feedback regarding performance quality. While positive feedback may enhance freelancers' motivation and satisfaction, negative evaluations may create stress and uncertainty regarding future employment opportunities (Agho et al., 1993). Research has shown that feedback contributes significantly to employee motivation and job satisfaction (Hackman & Oldham, 1976).

*H5: Feedback has a positive and significant relationship with job satisfaction among freelance IT workers.*

### ***Job Satisfaction in Digital Work Environments***

Job satisfaction among freelancers has become an emerging area of research in organizational behavior and labor economics. Unlike traditional employees who work within structured organizational environments, freelancers operate within decentralized and highly competitive

labor markets (Watson et al., 2021). Several studies suggest that freelancers often report high levels of job satisfaction due to the flexibility and autonomy associated with their work arrangements (Wilkin et al., 2013). Freelancers value the ability to control their work schedules, select projects aligned with their interests, and work remotely from preferred locations.

However, freelance work also introduces unique challenges that may negatively affect job satisfaction (Wilkin et al., 2013). These challenges include income instability, lack of social interaction, absence of organizational benefits, and limited career development opportunities.

Another important factor influencing freelancer satisfaction is the role of digital platforms in shaping work experiences. Platform algorithms, client ratings, and project bidding systems significantly affect freelancers' access to opportunities and income generation.

Recent research has also highlighted the presence of inequalities within digital labor platforms (Mathisen, & Knudsen, 2022). Factors such as gender, race, and geographic location may influence freelancers' access to opportunities and compensation levels (Kost et al., 2020). These structural inequalities may impact freelancers' perceptions of fairness and job satisfaction within digital labor markets. Despite these challenges, freelance work continues to attract a growing number of professionals worldwide due to the increasing demand for flexible employment options.

### ***Research Gap***

Although extensive research has examined the relationship between job characteristics and job satisfaction in traditional employment settings, limited attention has been given to freelance workers, particularly within the IT industry. Most empirical studies applying the Job Characteristics Model focus on employees working within structured organizational environments where hierarchical supervision and organizational support mechanisms are present.

Freelance workers operate under fundamentally different conditions. They manage their own work schedules, interact directly with clients, and rely heavily on digital platforms for job opportunities. These unique characteristics may alter how job design dimensions influence their satisfaction and motivation.

Furthermore, existing studies on freelance work primarily focus on economic outcomes such as income generation, platform participation, and labor market dynamics, rather than psychological

factors influencing employee satisfaction. Similarly, the geographic context of freelance work is also neglected. While developed economies have been extensively studied, emerging economies where freelance work is rapidly expanding remain underrepresented in empirical research. Therefore, there is a need for empirical studies that examine how job characteristics influence job satisfaction among freelance IT professionals, particularly within emerging digital labor markets.

## **RESEARCH METHODOLOGY**

### ***Research Design***

This study adopts a quantitative research design to examine the relationship between job characteristics and job satisfaction among freelance workers in the information technology (IT) industry. A quantitative approach was considered appropriate because the study aims to test theoretical relationships derived from the Job Characteristics Model using measurable constructs and statistical analysis (Creswell, 2014).

The research employed a cross-sectional survey design, where data were collected at a single point in time from freelance IT professionals working in Pakistan during 2024. Cross-sectional designs are commonly used in organizational and behavioral studies to examine relationships between job design variables and employee outcomes such as job satisfaction.

The conceptual framework of the study proposes that five job characteristics, skill variety, task identity, task significance, autonomy, and feedback, serve as independent variables influencing job satisfaction among freelance IT workers.

### ***Population and Sampling***

The target population of this study consisted of freelance professionals working in the IT industry in Pakistan. These individuals perform digital services such as programming, web development, graphic design, and digital marketing on a project-based basis for domestic and international clients.

Freelancers were selected as the study population because they represent a rapidly expanding segment of the workforce in Pakistan's digital economy. The flexible nature of freelance work allows professionals to work remotely while serving clients across global markets.

Due to the absence of a comprehensive national database of freelance IT workers, the study employed a non-probability sampling technique, specifically purposive and snowball sampling (Creswell, 2014). This approach is commonly used in research involving freelance workers where the population is dispersed and difficult to access.

A total of 150 questionnaires were distributed, and 118 usable responses were collected after removing incomplete surveys. This sample size satisfies the minimum requirements for structural equation modeling and multivariate statistical analysis, ensuring adequate statistical power for hypothesis testing.

#### ***Data Collection Procedure***

Primary data for the study were collected using a structured online questionnaire during the period March–September 2024. The survey instrument was developed using previously validated measurement scales and consisted of two main sections: demographic information and measurement of research constructs. Study variables were measured using a five-point Likert scale, ranging from 1 = Strongly Disagree to 5 = Strongly Agree.

#### ***Measurement of Variables***

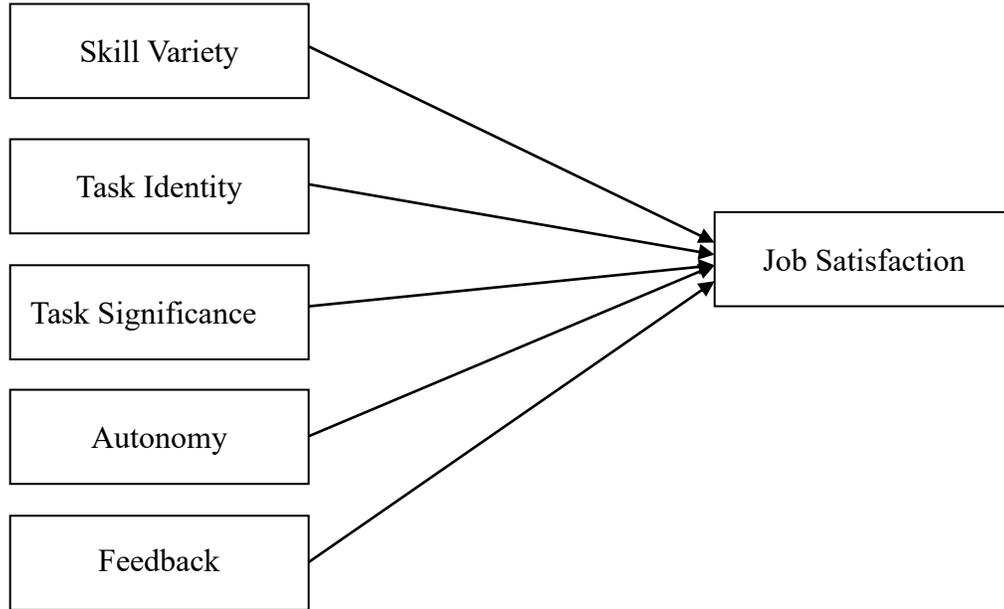
The constructions used in this study were adapted from established scales developed in the job design and organizational behavior literature. The independent variable, Job characteristics, was measured using the dimensions proposed in the Job Characteristics Model, and Skill Variety, Task Identity, Task Significance, Autonomy, and Feedback constructs were included. Each dimension was measured using multiple items adapted from the Job Diagnostic Survey (JDS) developed by Hackman and Oldham. These items measure the extent to which freelance workers perceive their work to involve diverse skills, meaningful tasks, independence in decision making, and feedback about their performance.

#### ***Data Analysis Technique***

The collected data were analyzed using statistical software, including SPSS and Structural Equation Modeling techniques. Descriptive statistics were used to summarize respondents' demographic characteristics and provide an overview of the sample distribution. Reliability analysis was conducted to assess the internal consistency of measurement scales using Cronbach's alpha. Construct validity was examined using confirmatory factor analysis and evaluation of

convergent validity and discriminant validity. These assessments ensure that the measurement items accurately represent the theoretical constructs used in the study (Bryman and Bell, 2014).

### CONCEPTUAL FRAMEWORK



**Figure 1.** Conceptual Framework

### RESULTS AND DISCUSSION

#### *Structural Model Testing*

To test the hypothesized relationships between job characteristics and job satisfaction, PLS-SEM was employed. The structural model analysis examined the direct effects of job characteristics on job satisfaction through path coefficients, t-statistics, and significance levels.

**Table 1.** Measurement Model (Constructs and Sources)

Construct	Items	Source
Skill Variety	3	Hackman & Oldham (1976)
Task Identity	3	Hackman & Oldham (1976)
Task Significance	3	Hackman & Oldham (1976)
Autonomy	3	Hackman & Oldham (1976)
Feedback	3	Hackman & Oldham (1976)
Job Satisfaction	5	Blanz (2017); Spector (1997)

***Descriptive Statistics***

A total of 118 responses from freelance IT professionals were included in the final dataset. The majority of respondents were male (approximately 68%), while 32% were female. Most participants were between 25 and 35 years of age, reflecting the relatively young demographic structure of Pakistan’s freelance workforce. In terms of professional specialization, respondents reported working in areas such as software development, web development, graphic design, digital marketing, and mobile application development.

***Measurement Model Assessment***

Before testing the structural relationships, the measurement model was evaluated to ensure the reliability and validity of the constructs. Following the guidelines suggested by Hair Jr. et al. (2021) for PLS-SEM, reliability, convergent validity, and discriminant validity were assessed using outer loadings, Cronbach’s alpha, composite reliability (CR), and average variance extracted (AVE).

**Table 2.** Outer Loadings

<b>Construct</b>	<b>Item</b>	<b>Loading</b>
Skill Variety	SV1	0.79
	SV2	0.83
	SV3	0.81
Task Identity	TI1	0.82
	TI2	0.85
	TI3	0.80
Task Significance	TS1	0.74
	TS2	0.78
	TS3	0.76
Autonomy	AU1	0.80
	AU2	0.82
	AU3	0.77
Feedback	FB1	0.75
	FB2	0.79
	FB3	0.76
Job Satisfaction	JS1	0.83
	JS2	0.86
	JS3	0.84
	JS4	0.81
	JS5	0.85

All indicator loadings exceeded the recommended threshold of 0.70, indicating adequate indicator reliability.

**Table 3.** Reliability and Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
Skill Variety	0.79	0.87	0.69
Task Identity	0.81	0.89	0.73
Task Significance	0.75	0.84	0.63
Autonomy	0.78	0.86	0.67
Feedback	0.74	0.84	0.64
Job Satisfaction	0.88	0.92	0.70

The results in table 3 above indicate that Cronbach's alpha and composite reliability values exceeded 0.70, confirming internal consistency. Additionally, all AVE values were above 0.50, demonstrating adequate convergent validity.

**Table 4.** Discriminant Validity (Fornell–Larcker Criterion)

Construct	AU	FB	SV	TI	TS	JS
Autonomy	0.82					
Feedback	0.46	0.80				
Skill Variety	0.39	0.41	0.83			
Task Identity	0.44	0.38	0.52	0.85		
Task Significance	0.36	0.33	0.47	0.45	0.79	
Job Satisfaction	0.41	0.37	0.58	0.61	0.40	0.84

The square root of AVE values exceeded the inter-construct correlations, confirming discriminant validity.

### ***Structural Model Assessment***

After confirming the reliability and validity of the measurement model, the structural model was evaluated to test the proposed hypotheses. Bootstrapping was conducted to assess the significance of the path coefficients.

**Table 5.** Hypothesis Testing (Structural Model)

Hypothesis	Relationship	Path Coefficient ( $\beta$ )	t-value	P-value	Result
H1	Skill Variety → Job Satisfaction	0.34	4.12	0.000	Supported
H2	Task Identity → Job Satisfaction	0.29	3.75	0.000	Supported
H3	Task Significance → Job Satisfaction	0.11	1.34	0.18	Not Supported
H4	Autonomy → Job Satisfaction	0.09	1.21	0.22	Not Supported
H5	Feedback → Job Satisfaction	0.07	1.10	0.27	Not Supported

The results indicate that skill variety and task identity have significant positive effects on job satisfaction, whereas task significance, autonomy, and feedback did not show statistically significant relationships. The structural model results reveal that skill variety and task identity significantly influence job satisfaction among freelance IT workers in Pakistan. These findings indicate that freelancers derive greater satisfaction when their work allows them to utilize diverse skills and complete identifiable projects. However, autonomy, task significance, and feedback did not exhibit statistically significant effects, suggesting that these factors may already be inherent in freelance work arrangements and therefore exert limited additional influence on satisfaction levels. Overall, the model explains a moderate proportion of variance in job satisfaction, highlighting the importance of job design characteristics in shaping the work experiences of freelance professionals.

## **CONCLUSION AND RECOMMENDATIONS**

The findings of this study indicate that among freelance IT workers in Pakistan, skill variety and task identity have significant positive effects on job satisfaction, while task significance, autonomy, and feedback do not demonstrate statistically significant relationships. This suggests that freelancers derive greater satisfaction when their work allows them to utilize a diverse set of skills and complete identifiable tasks from start to finish. These results are consistent with the principles of the Job Characteristics Model (Hackman & Oldham, 1976) and prior research indicating that engaging in varied and meaningful tasks enhances intrinsic motivation and overall work satisfaction (Humphrey, Nahrgang, & Morgeson, 2007; Oldham & Fried, 2016). In the context of freelance IT work, this finding highlights the importance of project variety and the ability to observe tangible outcomes, which can contribute to professional growth, portfolio development, and a stronger sense of accomplishment.

The lack of significant effects for autonomy, task significance, and feedback may be explained by the inherent characteristics of freelance work. Freelancers typically operate with high levels of autonomy as a default, making independence less of a differentiating factor for job satisfaction. Similarly, the perceived significance of tasks may be less influential because freelancers often focus on practical outcomes, such as project completion and client satisfaction, rather than broader societal impact. Feedback in freelance work is typically limited to client evaluations or platform

ratings, which may not provide sufficient reinforcement to influence overall satisfaction. These findings suggest that traditional predictors of job satisfaction in organizational settings may function differently within the freelance or gig economy, where work structures and motivational cues are inherently distinct.

The study findings underscore the relevance of job design elements that enhance professional engagement and ownership for freelance IT professionals. By focusing on skill variety and task identity, freelance workers experience greater intrinsic motivation and satisfaction, which are critical for sustaining performance and engagement in a competitive digital labor market. These insights have practical implications for both freelance platforms and clients, emphasizing the need to structure projects that allow freelancers to apply diverse skills and complete identifiable work. Furthermore, the results contribute to the theoretical understanding of the Job Characteristics Model by extending its application to non-traditional employment arrangements, demonstrating that while some core principles hold, certain job characteristics may operate differently in flexible, independent work environments.

### **STUDY IMPLICATIONS**

The findings of this study have important implications for both practitioners and policymakers operating within the freelance IT sector in Pakistan and similar emerging markets. For freelance platforms and clients, the results highlight the value of designing projects that enable workers to engage in a variety of tasks and complete identifiable deliverables, as these factors were found to significantly enhance job satisfaction. Platforms could incorporate features that allow freelancers to track their progress, receive recognition for completed projects, and access diverse assignments that challenge and develop their skill sets. For clients, structuring tasks in ways that allow freelancers to see the full scope and outcome of their work can increase motivation, improve work quality, and encourage repeat collaboration, ultimately benefiting both the worker and the organization.

From a policy perspective, the study emphasizes the importance of supporting the freelance workforce through initiatives that enhance work experience and professional growth. Government and industry bodies could consider implementing training programs, digital infrastructure support, and recognition mechanisms that help freelancers build competencies across diverse projects.

These interventions not only improve job satisfaction but also contribute to the broader growth of Pakistan's digital economy by strengthening the skills, engagement, and retention of highly capable freelance professionals. Additionally, understanding which job characteristics influence satisfaction can guide the development of guidelines and best practices for the management of freelance work, ensuring that this growing segment of the labor force remains motivated, productive, and sustainable.

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