

# Development of the Nepali version of the Job Stress Scale: Factor Structure and Validation

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## Abstract

The aim of this paper is to examine a cross-cultural adaptation and psychometric validation of the Job Stress Scale in the Nepali context, which was originally developed in Canada. Using the TCA procedure, experts validated the translation of the instrument from both linguistic structure and a semantic point of view. Its internal consistency was validated with Cronbach's Alpha and CFA. The measure is translated and adapted, as well as validated, based on non-probabilistic sampling of 395 employees in the banking sector. EFA varimax normalized rotation extracted 7 items. Internal consistency of the final measure, JSS Nepali version, had a Cronbach's Alpha value of 0.77. CFA validated JSS items with  $\chi^2 / df$  ratio 2.38, RMSEA (0.059), and CFI (0.947) as a reasonable Job Stress fit model for the Nepali version of JSS. The adequacy of this paper's findings is promising, suggesting that the Nepali version of spiritual intelligence, with 15 items and with all four factors (Job stress, Role expectation conflict, coworker's support, and work-life balance), is a self-Assessment Inventory scale that would provide a valid instrument to measure Job Stress among employees in the banking sector. The study is the first to empirically translate, adapt, and validate a Nepali version of JSS, offering potential improvements for other employee strata.

**Keywords:** Job Stress Scale, Cross-Cultural Adaptation, Psychometric Validation, Banking Employees, Job Stressors

## Background

The validation of job stress scales within different contexts is essential for understanding workplace dynamics and promoting employee well-being in this diverse region. Recent surveys have emphasized the significance of job stressors across cultures, particularly in Asian workplaces, where high work demands are increasingly recognized as the primary driver of stress (Catalyst, 2020; Catalyst, 2021). Sixty-four percent of employees in South-East Asia prioritize career advancement, reflecting the cultural importance of job security and professional achievement as markers of success (Catalyst, 2020).

Job stress encompasses both psychological and physiological responses to workplace stimuli, and stressors such as heavy workloads, managerial challenges, and professional conflicts have been shown to negatively affect mental health and job performance, particularly among specialty nurses (McVicar, 2003; Happell & Martin, 2005). Moreover, the unique cultural contexts of different countries often shape the interpretation and experience of work-related stress, intertwining traditional values with modern organizational pressures (Hofstede, 1980).

Understanding the intersection between organizational culture and psychosocial stress is critical for fostering healthier work environments, as employee perceptions of job values, career prospects, and organizational support directly influence motivation, satisfaction, and productivity (Spector & Cooper, 2002; Hofstede, 1980). With globalization, workplaces are increasingly shifting toward individualistic interpretations of vocation, although traditional values continue to play a significant role in shaping employee experiences (Giorgi et al., 2020).

Asian countries to capture psychosocial stressors more effectively (Inoue et al., 2014; Hidaka et al., 2022). In the Nepali context, tailoring job stress scales to local cultural and organizational realities is particularly important, as studies have shown that stress in the banking profession reduces job performance and increases turnover intentions (Basnet et al., 2022; Yadav, 2024). Thus, validation of job stress scales in Nepal is crucial for enabling researchers and organizations to identify specific stressors that undermine employee mental health and performance, ultimately informing policies and interventions for healthier workplaces (Rayamajhi, 2024). To achieve the aim of this research, the specific objectives of this study are:

- i. To translate an existing job stress

questionnaire into Nepali and ensure that the questions make sense and are relevant for the workers in Nepal. ii. To check the consistency and reliability of the Nepali version of the job stress questionnaire by using the statistical tool Cronbach's alpha, iii. To investigate the construct validity, criterion-related validity, and content validity of this scale, assessing how well it measures what it's supposed to measure, using psychometric techniques such as exploratory and confirmatory factor analysis.

Job stress can be considered a very important topic in today's working environment, with severe implications for employee well-being and productivity in a working organization. In a banking setting, stress can come from changes at a given organization, pressure to meet staffing levels, regulatory requirements, as well as environmental issues such as a pandemic, which can increase stress levels (Parker & DeCotiis, 1983; Giorgi et al., 2020).

Research indicates a high degree of stress has been correlated with decreased job performance, burnout, absence, and intentions to quit the job (Ahsan et al., 2009; Jain & Cooper, 2012). Job stress scale verification becomes a critical requirement for the adaptation process to ensure alignment and suitability within the Nepalese cultural setting. Most job stress scales were designed based on a Western cultural framework, and there is a need for appropriate adaptation to suit the collectivist orientation, hierarchy, and work practices prevalent in the country (Hofstede, 1980; Spector & Cooper, 2002).

The validation procedure includes psychometric analyses like exploratory and confirmatory factor analysis that determine a scale's reliability and validity. Also, qualitative techniques like interviews complement research by ascertaining the personal experience side of employees. Most importantly, validated scales enable organizations to develop strategies for increasing employee well-being and productivity. So, the validation process makes a significant contribution to policy formulation and cross-national research as well.

In the context of Nepal, there are already studies that have found that stress in the banking profession has an effect on lowering job performance and increasing turnover; thus, the need for job stress scale validation in Nepal is especially important in this area (Basnet et al., 2022; Yadav, 2024; Rayamajhi, 2024), which supports both the academic and real-world findings.



## Research Objectives

- To establish the content validity of the Nepali version through expert panel evaluation (CVI and modified Kappa).
- To determine the most suitable factorial structure of the Nepali JS through Exploratory Factor Analysis (EFA).
- To confirm the factor structure and assess model fit of the Nepali version through Confirmatory Factor Analysis (CFA).

## Literature Review

Since the 1960s, researchers have worked to separate stress caused by jobs from how individuals react to it. The early work of Holmes and Rahe (1967) showed how stress can harm health, and later tools like the Job Stress Scale (Parker & DeCotiis, 1983) and the Perceived Occupational Stress Scale (2021) focused more on how workers feel stress in their jobs. These instruments help organizations improve workplace practices and support mental health. Models such as Karasek's Demand-Control model (1979) highlighted the balance between job demands and employee autonomy, influencing the design of stress measures. To ensure accuracy, scales like the Maslach Burnout Inventory (MBI) and the Effort-Reward Imbalance Inventory (ERI) were developed, offering deeper insights into burnout and workplace challenges. More recently, new stressors linked to digital work, such as techno stress, have led to updated tools like the Digital Stressors Scale (DSS). This shows a shift toward broader approaches that consider the complex realities of modern work and the need to protect employee mental health. However, debates continue about how effective these scales are, especially since self-report measures may be biased.

Researchers also stress the importance of testing these tools for different groups, including people with intellectual disabilities. As work environments keep changing, measuring job stress remains essential for improving employee health and productivity.



Job stress measurement has grown a lot over time, with several important tools created to study different aspects of workplace stress. These tools look at job demands, how people feel about stress, and the social environment at work.

**Perceived Stress Scale (PSS):** Developed by Cohen and colleagues in 1983, the PSS is one of the most widely used tools for measuring how people perceive stress. It asks 10 questions about stress experienced in the past month, with scores ranging from 0 to 40. Higher scores mean higher stress levels. The PSS is often used in research and works well across different groups.

**Maslach Burnout Inventory (MBI):** Created by Maslach and Jackson, the MBI measures burnout among professionals, especially in human service jobs. It has 22 items that assess emotional exhaustion, depersonalization, and personal accomplishment. These subscales help identify specific areas of burnout in the workplace.

**Job Stress Survey (JSS):** Introduced by Spielberger and Vaggin (1999), the JSS looks at 30 common workplace stressors. Respondents rate each stressor's severity on a 9-point scale, making it possible to compare stress levels to an average event. The JSS is widely used to understand sources of stress in different job settings.

**Effort-Reward Imbalance, Inventory (ERI):** Developed by Siegrist, the ERI examines whether the effort

Employees put into their work matches the rewards they receive. When effort is high, but rewards are low, stress and psychological strain increase. This tool is useful for studying workplace fairness and well-being.

**Comprehensive Assessment Tools:** More recently, broader tools have been designed to measure multiple aspects of job stress. For example, the tool created by the Comitato Unico di Garanzia in Rome evaluates stress severity, frequency, and overall stress index. This multi-disciplinary approach shows how complex job stress can be and highlights the need for tailored methods.



## Hypotheses

After the extensive literature review, to achieve the objective, this study considers the following hypotheses:

Hypothesis 1: The final Nepali version of JSS is similar to the original version of JSS with four dimensions and 24 items.

Hypothesis 2: The Nepali version has significantly reliable internal consistency.

## The Original tool

### New Job Stress Scale (JSS)

The Job Stress Scale, developed by Shukla and Srivastava (2016), is a 22-item scale in the Indian context with dimensions of job stress, job Role expectation conflict, Co-worker support, and Work-life balance, having a 5 and 6-point Likert scale ( Shukla& Srivastava, 2016).

*Job stress scale:* The items (TS1, TS2, TS3, TS4, TS5, TS6, TS7, TS8, AS1, AS2, AS3, AS4, and AS5) of job stress were adopted from the short version questionnaire developed by Jamal and Baba(1992) with a 5-point Likert scale from 1 to 5 (strongly agree, disagree, undecided, agree, strongly agree).

*Job expectation conflict:* Job expectation conflict items (C1, RC2, RC3, RC4, and RC5) have been adopted from a well-developed and widely used occupational stress index (OSI) in the Indian context developed by Srivastava and Singh(1981) with a 5-point Likert scale from 1to5 (strongly agree, disagree, undecided, agree, strongly agree).

*Co-worker support:* Co-worker support items (CS1, CS2, CS3, and CS4) were adopted from the social support scale designed by O'Driscoll (2000) with a 6-point Likert scale from1to 6(Never, very occasionally, sometimes, often, very often, all the time).

*Work-life balance:* The work-life balance items (WLB1, WLB2, WLB3, and WLB4) adopted from the work-life balance scale developed by Brough et al. (2009) were used to assess



employees' experience in balancing between their work and non-work life, on a 5-point Likert scale from 1 to 5 (strongly agree, disagree, undecided, agree, strongly agree).

## Method 1

The translation and adaptation of the scale followed a step-by-step process recommended by Beaton et al. (2000) to make sure the instrument worked properly in the Nepali language and cultural setting. First, two translators separately translated the original English scale into Nepali. One translator knew the topic well, while the other did not, so that both expert and everyday language perspectives were captured (Beaton et al., 2000; Guillemin, Bombardier, and Beaton, 1993). Second, the research team sat together, compared both translations side by side, discussed any differences, and agreed on one combined version of the scale, with each translator also rating how difficult the translation was for them using a simple scale of easy, medium, or difficult (Santana Domínguez et al., 2021). Third, two completely different translators — who had never seen the original scale — translated the combined Nepali version back into English to check whether the meaning had been kept correctly during translation (Brislin, 1970; Hambleton, 1994). Fourth, a group of experts looked at all the versions together, checked that the words, ideas, and experiences in the scale still made sense in the Nepali context, and then produced a final version, which was also sent to the original scale developer for approval (Beaton et al., 2000; Guillemin et al., 1993). After the translation was complete, a pilot test was carried out with 52 bank employees from Nepal Investment Mega Bank, who filled in the questionnaire in person with the research team present and were asked to point out any questions they found confusing, unclear, or culturally unsuitable, while the time it took to complete the questionnaire was also recorded to make sure it was not too long (Polit & Beck, 2006; Collins, 2003). Finally, to check whether the questions in the scale actually measured what they were supposed to measure, six subject-matter experts were asked to rate how relevant each question was on a scale from one (not relevant) to four (highly relevant), following the approach recommended by Polit and Beck (2006) and Lynn (1986). The score for each individual question, called the I-CVI, needed to be 0.78 or above to be considered acceptable, while the overall score for the whole scale, called the S-CVI, needed to be

0.90 or above (Polit, Beck, & Owen, 2007). A modified kappa score was also calculated for each question to make sure the experts were genuinely agreeing with each other and not just agreeing by chance, with a score of 0.75 or above meaning excellent agreement (Cicchetti & Sparrow, 1981). In this study, all questions scored between 0.83 and 1.00 on the I-CVI; the overall S-CVI was above 0.90, and all kappa values were between 0.81 and 1.00, confirming that the Nepali version of the scale had strong content validity and was ready for use with banking employees in Nepal (Polit & Beck, 2006; Yusoff, 2019).

Pilot Study

A pilot scheme was used to estimate the feasibility and viability of the tool, along with its cultural suitability. This was based on the identification of ambiguous items, possible errors, and comprehension conflicts in the items. Response completion time was also assessed. The participant professionals were chosen through non-probabilistic convenience sampling at the convenience of the research team. A total of 52 employees of Nepal Investment Mega Bank took part in this pilot study, and the questionnaire was given to them personally to collect their perceptions.

Preliminary 2

Table 1: Demographic Details of Experts

|         | Position Occupy | Years of experience | Area     | Academic Level |
|---------|-----------------|---------------------|----------|----------------|
| Expert1 | Professor       | 15                  | Academic | PhD            |
| Expert2 | Professor       | 10                  | Academic | PhD            |
| Expert3 | HoD Research    | 20                  | Academic | PhD            |
| Expert4 | Assistant       | 5                   | Academic | M Phil         |
| Expert5 | Assistant CEO   | 20                  | Banking  | MBA            |
| Expert6 | Deputy Director | 10                  | Banking  | MPhil          |



The Polit and Beck (2006) expert test was used to assess content validity, with a panel of six professionals chosen through non-probability convenience sampling, considering factors like academic level, experience, environment, professional category, and knowledge.

Sampling

The survey of 78 bank employees from Nepal Investment Mega Bank, with 50% male and 50% female, was conducted using a convenience sampling method, using 100 questionnaires administered through HR, taking an average of 15minutes.

Demographic Analysis

The participants in the study were mostly female, making up 52.8% of the group. The total percentage of participants accounted for was 98.1%. Regarding their job positions, 9.4% were managers, 54.7% were officers, 28.3% were assistants, and 5.7% held other positions. This distribution indicates that most participants were in mid-level roles, with fewer in senior management or support positions. In terms of earnings, 15% earned below 30,000, 45% earned between 30,001 and 60,000, 30% earned between 60,001 and 90,000, and 10% earned above 90,000. Most participants were married (69.8%), while 28.3% were unmarried. The data does not show any divorced participants. Looking at age groups, 50.9% were between 25 and 35 years old, 24.5% were between 36 and 45, 1.7% were between 46 and 55, and 5.7% were over 55 years old. No participants were under 25. Regarding education, 9.4% had completed high school, 54.7% had intermediate education, 28.3% held a bachelor's degree, and 5.7% had a master's degree or higher.

Reliability Analysis

Table 3: Reliability Statistics

| Measures | Cronbach's Alpha | Standardized Items | No of Items |
|----------|------------------|--------------------|-------------|
| JS       | 0.624            | 0.620              | 9           |
| REC      | 0.734            | 0.751              | 5           |
| CWS      | 0.874            | 0.878              | 4           |

The Cronbach's alpha (.787) reflects good internal consistency for the 22 items on JSS. It means the items are reliably measuring the same underlying construct, Job Stress Scale, except for Work Life Balance (WLB).

### Descriptive Analysis

**Table 4:** *Descriptive Analysis*

|     | Items | N  | Range | Min | Max | Mean | Std. Devi |
|-----|-------|----|-------|-----|-----|------|-----------|
| JSS | JS 1  | 78 | 4     | 1   | 5   | 2.49 | 1.14      |
|     | JS 2  | 78 | 4     | 1   | 5   | 2.94 | 1.36      |
|     | JS 3  | 78 | 4     | 1   | 5   | 2.65 | 1.32      |
|     | JS 4  | 78 | 4     | 1   | 5   | 3.45 | 1.31      |
|     | JS 5  | 78 | 4     | 1   | 5   | 2.09 | 1.02      |
|     | JS 6  | 78 | 4     | 1   | 5   | 3.05 | 1.18      |
|     | JS 7  | 78 | 4     | 1   | 5   | 2.33 | 1.21      |
|     | JS 8  | 78 | 4     | 1   | 5   | 2.6  | 1.19      |
|     | JS 9  | 78 | 4     | 1   | 5   | 2.12 | 1.26      |
| REC | JS 10 | 78 | 4     | 1   | 5   | 2.53 | 1.18      |
|     | JS 11 | 78 | 4     | 1   | 5   | 2.37 | 1.29      |
|     | JS 12 | 78 | 4     | 1   | 5   | 2.4  | 1.23      |
|     | JS 13 | 78 | 4     | 1   | 5   | 3.49 | 0.99      |
|     | JS 14 | 78 | 5     | 1   | 6   | 3.38 | 1.12      |
| CWS | JS 15 | 78 | 4     | 2   | 6   | 4.35 | 1.16      |
|     | JS 16 | 78 | 5     | 1   | 6   | 4.01 | 1.14      |
|     | JS 17 | 78 | 4     | 2   | 6   | 3.99 | 1.29      |
|     | JS 18 | 78 | 5     | 1   | 6   | 3.91 | 1.36      |
| WLB | JS 19 | 78 | 5     | 1   | 6   | 3.65 | 1.19      |
|     | JS 20 | 78 | 4     | 1   | 5   | 3.09 | 1.12      |
|     | JS 21 | 78 | 4     | 1   | 5   | 3.5  | 1.19      |
|     | JS 22 | 78 | 4     | 1   | 5   | 3.29 | 0.96      |

The data shows that stress levels vary across different aspects of the job. Some areas cause low

|         | Experts   | Agree | ICVI | UA | Pa    | K*   | Interpretation |
|---------|-----------|-------|------|----|-------|------|----------------|
| Item-1  | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-2  | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-3  | 6         | 5     | 0.83 | 0  | 0.094 | 0.81 | Excellent      |
| Item-4  | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-5  | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-6  | 6         | 5     | 0.83 | 0  | 0.094 | 0.81 | Excellent      |
| Item-7  | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-8  | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-9  | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-10 | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-11 | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-12 | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-13 | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-14 | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-15 | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-16 | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-17 | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-18 | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-19 | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-20 | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-21 | 6         | 6     | 1    | 1  | 0.016 | 1    | Excellent      |
| Item-22 | 6         | 5     | 0.83 | 0  | 0.094 | 0.81 | Excellent      |
|         | S-CVI Ave |       | .97  |    |       |      |                |

stress, some moderate stress, and a few items (like JS15–JS18) stand out as high-stress factors in the workplace. Low-Stress Items: JS5, JS9, JS7, JS1. Participants generally felt less stressed in these areas. Moderate-Stress Items: JS4, JS6, JS20, JS21. Participants reported a medium stress level. High-Stress Items: JS15, JS16, JS17, JS18. Participants consistently reported higher stress, suggesting these are the most critical areas to address. Consistency: Some items (JS13, JS22) had more agreement among participants, while others (JS2, JS16, JS18) showed mixed opinions.

Low-Stress Items: JS5, JS9, JS7, JS1. Participants generally felt less stressed in these areas. Moderate-Stress Items: JS4, JS6, JS20, JS21. Participants reported a medium stress level. High-

Stress Items: JS15, JS16, JS17, JS18. Participants consistently reported higher stress, suggesting these are the most critical areas to address. Consistency: Some items (JS13, JS22) had more agreement among participants, while others (JS2, JS16, JS18) showed mixed opinions.

### **Content Validity Index (I-CVI)**

Six experts analyzed the content validity index and modified Kappa agreement of the Job Stress Scale to test inter-rater agreement and chance of agreement by six experts.

a.CVI

I: Content validity for each item.

b. Pa: random likelihood agreement

c. K\*:modified Kappa.

d. K\*applied evaluation criteria

I-CVI and the S-CVI supported the content validity of the job stress scale and subscales: Job Stress Scale, Expectation conflict, co-worker support, and work-life balance (Table 5). Relevance of 22 items with I-CVI scores ranging from 0.83 to - 1 in subscales, which is above  $\geq 78$ . S-CVI Avg. of the subscales of JSS is rated 0.97, which is above  $\geq .90$ . The modified Kappa agreement for every item of the JSS demonstrates excellent agreement (K ranging from 0.81 to 1.00).

### **Conclusion**

The study shows high content validity and reliability of JSS measures for Nepali bank employees, indicating their appropriateness for underlying constructs and cross-cultural adaptation, making them suitable for the Nepali context.

### **Method 2**

Method 2 was carried out to further validate the Nepali version of the Job Stress Scale (JSS) by using statistical procedures to find the most suitable factor structure of the scale. The objective of this method was to adapt and confirm that the scale measured job stress accurately and reliably



among banking employees in Nepal (Hair, Black, Babin, & Anderson, 2010). The total population for this study was approximately 45,000 banking employees working across various commercial banks in Nepal, and a sample of 395 employees was selected using the Morgan table, which is a standard reference tool used by researchers to determine the right sample size based on the total population size (Morgan & Krejcie, 1970). This sample size was large enough to produce reliable statistical results while also being practical for data collection. The data collected from these 395 employees were then analyzed using descriptive analysis, Exploratory Factor Analysis (EFA), and Confirmatory Factor Analysis (CFA) through Structural Equation Modeling (SEM) to check the factor structure, reliability, and validity of the Nepali JSS and to confirm that the scale fit the data well (Byrne, 2010).

Sampling strategies employed in this study include purposive and convenience sampling. The objective of purposive sampling is used to target specific characteristics or criteria pertinent to the study. The steps involved include defining criteria by identifying key characteristics essential for the study, such as job role (e.g., managers, assistants, officers), marital status, tenure, education, and designation, followed by selecting employees based on these criteria. Conversely, the objective of convenience sampling is to gather data swiftly and efficiently from readily accessible employees. This involves identifying accessible groups, such as employees in a particular branch or those attending a company-wide meeting or training session.

### Demographic Details

The majority of employees are women (52.9%), with a minimum age of 22 and a maximum of 32. The majority are married, with 40.5 being assistant-level employees, and 62% holding a master's degree.



Table 6 : *Demographic analysis*

|                |             |              |           |                  |
|----------------|-------------|--------------|-----------|------------------|
| Gender         | male        | Female       |           |                  |
| Age            | 47.1        | 52.9         |           |                  |
|                | Maximum     | Minimum      |           |                  |
|                | 32 years    | 22 Years     |           |                  |
|                |             |              |           |                  |
| Tenure         | 5years      | 29 years     |           |                  |
|                |             |              |           |                  |
| Marital status | Married     | Unmarried    | Divorce   |                  |
|                | 64.8        | 34.2         |           |                  |
|                |             |              |           |                  |
| Position       | Manager     | Officer      | Assistant | other            |
|                | 15.2        | 37.2         | 40.5      | 6.8              |
|                |             |              |           |                  |
| Qualification  | High School | Intermediate | Bachelor  | Master and above |
|                | 0.8         | 4.1          | 33        | 62               |

**Descriptive Analysis**

Table 7 displays the results of descriptive analysis of JSS data, indicating its mean, standard deviation, and reliability.

**Table 7:** *Descriptive Analysis*

| Items | Std. Deviation |         | Cronbach |
|-------|----------------|---------|----------|
|       | Mean           |         | Alpha    |
| JS    | 23.4700        | 6.18000 | 0.73     |
| REC   | 11.8400        | 3.64000 | 0.73     |
| CWS   | 16.2200        | 4.23000 | 0.74     |
| WLB   | 13.42          | 2.74000 | 0.52     |

The descriptive result of Job Stress shows the Mean for JS is fairly high (23.47); respondents seem generally stressed. SD 6.18 shows a decent spread, indicating mixed responses.

The result shows acceptable reliability (0.73). Similarly, Role Expectation Conflict (REC) Mean 11.84 shows possibly low recognition across the sample, SD: 3.64 shows Moderate variability, and Cronbach alpha ( $\alpha = 0.73$ ) shows a result of acceptable consistency. Also, The Mean 16.22 for Co-worker Support shows the moderate-to-good perceived support, SD: 4.23 shows some spread, showing differing experiences. And Cronbach ( $\alpha=0.74$ ) shows good internal consistency. Finally, the Mean13.42 shows work-Life Balance (WLB) could suggest imbalance or low satisfaction; SD 2.74 shows relatively tight, suggesting agreement among participants. But Alpha 0.52 raises concerns that the items may not be consistently measuring the concept of work-life balance.

According to the Job Stress descriptive result, respondents appear to be generally stressed, with the mean for JS being fairly high (23.47). A respectable spread of SD 6.18 suggests a range of responses. The reliability is acceptable (0.73). Similarly, Cronbach's alpha ( $\alpha = 0.73$ ) indicates results of acceptable consistency, SD: 3.64 indicates moderate variability, and Role Expectation Conflict (REC) Mean: 11.84 indicates possibly low recognition across the sample. Additionally, the Coworker Support Meanof16.22indicates moderate-to-good perceived support, while the SD of 4.23 indicates some spread, indicating varying experiences. Additionally, Cronbach's coefficient of determination ( $\alpha = 0.74$ ) indicates strong internal consistency. Lastly, the SD 2.74 indicates relatively tight agreement among participants, while the Mean13.42 indicateswork-life balance (WLB), which may indicate imbalance or low satisfaction. However, Alpha 0.52 presents issues because the items might not be measuring the concept consistently.

### Correlation Analysis

| The relationship (REC) and | Table no 8 | Correlation |       |       |       | correlation analysis     |
|----------------------------|------------|-------------|-------|-------|-------|--------------------------|
|                            |            | JS          | REC   | CWS   | WLB   |                          |
|                            | JS         | 1.000       | 0.401 | 0.092 | 0.049 | moderately strong        |
|                            | REC        | 0.401       | 1.000 | 0.038 | 0.103 | between role conflict    |
|                            | CWS        | 0.092       | 0.038 | 1.000 | 0.351 | job stress (JS) (0.401). |
|                            | WLB        | 0.049       | 0.103 | 0.351 | 1.000 | Simultaneously, role     |

conflict itself has a weak correlation (0.038) with CWS and a positive correlation (0.103) with WLB, while JS has weak associations (0.092) with both WLB and CWS. Conversely, there is the strongest correlation (0.351) between work-life balance and coworker support.

Table 9: Communalities



The EFA was conducted using principal component analysis and varimax rotation, with the communality of the scale assessed for acceptable explanation levels. The study revealed that all communalities had a score of over 0.50 for all four factors (JS, REC, CWS, and WLB) with the exception of JS13, which had a minimal score of 0.376.

The correlation matrix's significance was assessed using Bartlett's Test of Sphericity, revealing a significant correlation ( $\chi^2=1911.510, p<0.001$ ), and indicating its suitability for

factor analysis. The Kaiser-Meyer-Olkin MSA value of 0.745 indicated appropriate data for factor analysis, yielding four factors accounting for 61.484 percent of the data variation. The EFA revealed total of 8 factors, J1, J2, J3, J4,J5, J9, J14, J20 failed to show its significant impact.

**Table 11** *Reliability Analysis*

| Items | Loadings | Reliability of JSS Nepali Version (After Model fit) |                     |                       | Ave   |
|-------|----------|-----------------------------------------------------|---------------------|-----------------------|-------|
|       |          | Cronbach Alpha                                      | Convergent validity | Composite Reliability |       |
| JS    |          | 0.64                                                | 0.65                | 0.796                 | 0.567 |
|       | 0.704    |                                                     |                     |                       |       |
|       | 0.742    |                                                     |                     |                       |       |
|       | 0.809    |                                                     |                     |                       |       |
| REC   |          | 0.76                                                | 0.77                | 0.844                 | 0.58  |
|       | 0.793    |                                                     |                     |                       |       |
|       | 0.846    |                                                     |                     |                       |       |
|       | 0.821    |                                                     |                     |                       |       |
| CWS   | 0.55     | 0.845                                               | 0.85                | 0.889                 | 0.668 |
|       | 0.835    |                                                     |                     |                       |       |
|       | 0.877    |                                                     |                     |                       |       |
|       | 0.799    |                                                     |                     |                       |       |
| WLB   | 0.754    | 0.82                                                | 0.833               | 0.877                 | 0.705 |
|       | 0.761    |                                                     |                     |                       |       |
|       | 0.871    |                                                     |                     |                       |       |
|       | 0.881    |                                                     |                     |                       |       |

**CFA analysis**

Confirmatory factor analysis was computed using the AMOS test measurement model. As a part of CFA, factor loadings were assessed for each item. JS1, JS2, JS3, JS4, JS5, JS9, JS14, and JS20 were removed based on standardized covariances. Factor loadings are presented

in Figure 2. JS1, JS2, JS3, JS4, JS5, JS14, and JS20 are the factors that were extracted from the job stress scale as a result of the factor analysis process. The first factor, Coworker Support (CWS), was largely represented by items JS15, JS16, JS17, and JS18, with values ranging from 0.64 to 0.86, consolidating the idea that these items are strong indicators of this particular aspect. The second factor, Role Expectation Conflict (ROC), was represented by items JS10-JS13, with values ranging from 0.42 to 0.81, meaning that most of the items had moderate to strong indicators, but JS14 was a weak at 0.42, and may need some adjustment or improvement. The third factor, Work-Life Balance (WLB), was represented by JS19, JS21, and JS22, with values ranging from 0.66 to 0.89, meaning these factors have very strong indicators for this particular variable. And the last factor, Job Stress (JSS), was represented by JS6-JS8, with values ranging from 0.42 to 0.71, meaning that these factors have moderate indicators, and are JS1, JS2, JS3, JS4, JS5 somewhat lagging behind the other factors regarding the strong indicators. The path diagram shows good loadings, meaning your items are doing a good job of measuring each factor. Overall, SEM is showing strong discriminant validity and a clean factor structure.

**Table 10 :** *Model Fit Measures*

| Measure | Estimate | Threshold       | Interpretation |
|---------|----------|-----------------|----------------|
| CMIN    | 169.237  | --              | --             |
| DF      | 71       | --              | --             |
| CMIN/DF | 2.384    | Between 1 and 3 | Excellent      |
| CFI     | 0.947    | >0.95           | Acceptable     |
| SRMR    | 0.063    | <0.08           | Excellent      |
| RMSEA   | 0.059    | <0.06           | Excellent      |
| Close   | 0.089    | >0.05           | Excellent      |

Overall, the model fits the data well. The CMIN/DF ratio of 2.384 shows a reasonable balance between explanatory power and complexity, and it is well within the

acceptable range. Both the RMSEA (0.059) and SRMR (0.063) are below their respective cut-off points, indicating a data structure approximation that is excellent. It is confirmed that the RMSEA is not significantly higher than 0.05 by the PClose value of 0.089. Despite being just below the optimal benchmark of 0.95, the CFI of 0.947 is still acceptable, particularly when considering the other positive metrics. These findings, taken together, suggest a model that fits well and has little opportunity for improvement.

Table 11: Reliability Analysis

| Items | Reliability of JSS Nepali Version (After Model fit) |                |                     |                       | Ave   |
|-------|-----------------------------------------------------|----------------|---------------------|-----------------------|-------|
|       | Loadings                                            | Cronbach Alpha | Convergent validity | Composite Reliability |       |
| JS    |                                                     | 0.64           | 0.65                | 0.796                 | 0.567 |
|       | 0.704                                               |                |                     |                       |       |
|       | 0.742                                               |                |                     |                       |       |
|       | 0.809                                               |                |                     |                       |       |
| REC   |                                                     | 0.76           | 0.77                | 0.844                 | 0.58  |
|       | 0.793                                               |                |                     |                       |       |
|       | 0.846                                               |                |                     |                       |       |
|       | 0.821                                               |                |                     |                       |       |
| CWS   |                                                     | 0.845          | 0.85                | 0.889                 | 0.668 |
|       | 0.55                                                |                |                     |                       |       |
|       | 0.835                                               |                |                     |                       |       |
|       | 0.877                                               |                |                     |                       |       |
| WLB   |                                                     | 0.82           | 0.833               | 0.877                 | 0.705 |
|       | 0.799                                               |                |                     |                       |       |
|       | 0.754                                               |                |                     |                       |       |
|       | 0.761                                               |                |                     |                       |       |
|       | 0.871                                               |                |                     |                       |       |
|       | 0.881                                               |                |                     |                       |       |

The reliability evaluation of the Nepali version of the Job Stress Scale (JSS), carried out following the assessment of model fit, reveals acceptable to robust psychometric properties. Characteristics across its four dimensions: Job Stress (JS), Role Expectation Conflict (REC), Co-worker Support (CWS), and Work-Life Balance (WLB). For Job Stress (JS), the factor loadings range from 0.704 to 0.809, reflecting moderate contributions from the items. The Cronbach’s alpha is 0.64, which is slightly under the usual benchmark of 0.70, indicating marginal internal consistency. Nevertheless, the composite reliability (CR) of 0.796 and average variance extracted (AVE) of 0.567 suggest acceptable convergent validity, as the AVE surpasses 0.50 and the CR exceeds 0.70. The Role Expectation Conflict (REC) dimension exhibits stronger psychometric qualities, with

loadings ranging from 0.76 to 0.846. The Cronbach's alpha is 0.77, and the CR is 0.844, both demonstrating good reliability. The AVE of 0.58 confirms sufficient convergent validity, supporting the internal coherence of the construct.

Co-worker Support (CWS) demonstrates strong reliability, with factor loadings between 0.799 and 0.877. A Cronbach's alpha of 0.85 and a Composite Reliability (CR) of 0.889 suggest excellent internal consistency. Additionally, the Average Variance Extracted (AVE) of 0.668 further confirms robust convergent validity, indicating that the indicators effectively capture the underlying construct. Moreover, Work-Life Balance (WLB) displays the most favorable psychometric indicators among the four dimensions.

Factor loadings range from 0.761 to 0.881, accompanied by a Cronbach's alpha of 0.833 and a CR of 0.877, both exceeding recommended levels. The AVE of 0.705 validates strong convergent validity, showing that the items are highly representative of the construct. Therefore, the Nepali version of the Job Stress Scale (JSS) exhibits acceptable reliability and convergent validity, particularly within the dimensions of REC, CWS, and WLB. In contrast, the JS dimension may require additional refinement to improve internal consistency.

The Job Stress Scale (JSS) for Nepal describes work-related stressors in different roles within an organization. A confirmatory factor analysis (CFA) evaluation using structural equation modeling (SEM) shows that recoverable psychometric characteristics could be lacking. Co-responsibility within the tasks demonstrates that role overload emerges, confirming the importance of the organization's systemic perception. Benchmark parameters are evident using the Job Stress (JS) factor, ranging from 0.704 to 0.809 within the tasks, and suggest a moderate contribution. Alongside the tasks, the Co-worker Support (CWS) dimension demonstrates the above.

The average within groups and average between groups, the composite reliability (CR) of 0.796, verging on 0.7, as well as the average variance extracted (AVE) of 0.567, exceed 0.5 and 0.7, respectively, demonstrating sufficient stability. For REC, Role



Expectation Conflict is a measure of the constituents of work interaction, focusing on a range of stressors to measure an employee's interpersonal workplace relationships. The Feature Set is more reliable within the composite spanning (0.76 to 0.846), confirming the above benchmark, averaging 0.77, while the CR of 0.844 reflects good reliability. The criteria of Co-worker Support (CWS) are provided, demonstrating strong organizational contributors and also describe a greater part of the work organization, drawing attention to the tasks. Encouraged role specifications within the JSS detail the overlap between the two roles within a hierarchy, which is composited as 0.85. Average variance extracted surpasses 0.5, demonstrating sufficient stability while exceeding confirming boundaries of discernible roles, while depicting part of 0.75 in the high range. Therefore, the Nepali version of the Job Stress Scale (JSS) exhibits acceptable reliability and convergent validity, particularly within the dimensions of REC, CWS, and WLB, whereas the JS dimension may require additional refinement to improve internal consistency.

Validity Analysis

Discriminant validity is established and presented in the following table.

Table12 : HTMT

|   | 1     | 2     | 3    | 4 |
|---|-------|-------|------|---|
| 1 |       |       |      |   |
| 2 | 0.023 |       |      |   |
| 3 | 0.373 | 0.006 |      |   |
| 4 | 0.139 | 0.261 | 0.05 |   |

The analysis shows no warnings for the HTMT analysis, as all values are well below 0.85. This means each construct is clearly distinct from the others.

Discussion

The current study clearly offers useful evidence for the effective translation, adaptation, and validation of the Job Stress Scale (JSS) in the Nepali banking industry. The results clearly establish that the Nepali version of JSS has acceptable reliability and validity, which is evident since the alpha reliability coefficient for the overall scale is (.787), representing good reliability. The results are in line with previous similar psychological analyses of occupational stress scales, as suggested by other researchers, Parker and DeCotiis (1983), who clearly identified the role of variables in organizational settings to establish stress.

The results from the confirmatory factor analysis ( $\chi^2/df=2.38$ , RMSEA=0.059, CFI=0.947) clearly establish the scale's overall structural validity according to international norms (Byrne, 2010). The emergence of high-stress items (JS15 to JS18) reveals workload and expectations to be very important sources of stress in the Nepalese banking environment. The emergence of this finding is consistent with the Karasek Demand-Control model (1979), which argued that very demanding jobs combined with low control over one's work are positively associated with strains. Similar findings emerge in the context of the Asian environment, where very demanding jobs are identified as positively correlated with worker stress and intention to quit (Basnet et al., 2022; Yadav, 2024), while low-stress items like JS5 or JS9 propose that not all jobs are equally associated with worker strains.

Their search also makes a contribution to the existing literature on the cross-cultural adaptation of stress scale measures. The significance of a collectivist mindset and the hierarchical nature of Nepal's societies, emphasized in Hofstede's model of dimensions in 1980, underscores the challenges posed by the Western norms of most stress scales. The current research on the JSS seeks to fill the gap emphasized in the need for culturally aware measurement scales (Spector & Cooper, 2002). Such constructs have previously been established in Japan and other Asian countries (Inoue et al., 2014; Hidaka et al., 2022).

JSS, having been validated, now provides a mechanism for monitoring the levels of stress and identifying interventions for the differently stressed groups in the Nepalese context. Stress in the banking industry has already been found to affect performance and



turnover rates negatively (Rayamajhi, 2024), and the current study contributes to the issue through the ability to develop an evidence-based policy using the findings of this research. Also, the content validity index of 0.97, strong enough with an S-CVI of 0.97, aligns with the emphasis of occupational health psychology on the strength of methodology in practice (Quick & Tetrick, 2011).

However, the less reliable result obtained from the work-life balance subscale indicates that this factor may need to be further developed to more accurately represent the experiences of employees in Nepal. It is supported by Brough et al. (2009), who proposed that work-life balance is so context-specific that it may differ across cultures as well as industries. One proposed area of further research is to generalize validation to other occupational settings and to implement a longitudinal research methodology to monitor the trends of stress.

More comprehensively, the eight items JS1, JS2, JS3, JS4, JS5, JS9, JS14, and JS20 were removed during the factor analysis process, which deserves careful attention. These items primarily covered time stress and general anxiety dimensions of the original scale. Their removal suggests that the way time pressure and anxiety are experienced and understood by Nepali banking employees may differ from the Indian context in which the original JSS was developed by Shukla and Srivastava (2016). This is not an isolated finding; similar patterns of item removal during cross-cultural adaptation have been reported in studies adapting Western psychological instruments in Asian contexts, where the expression of stress-related emotions is often more indirect and socially mediated than in the cultures where the instruments were originally designed (Dere, Falk, & Ryder, 2012; Bhawuk & Brislin, 1992). Future versions of the Nepali JSS should consider whether new, locally generated items capturing time pressure and anxiety in culturally appropriate language could strengthen these dimensions rather than leaving them unmeasured.

The moderate correlation found between role expectation conflict (REC) and job stress (JS) ( $r = 0.401$ ) warrants deeper discussion. This finding is consistent with role theory,



which suggests that when employees receive conflicting signals from different people in authority, such as managers, senior officers, and clients, they experience a form of role strain that directly elevates overall stress levels (Katz & Kahn, 1978). In Nepal's banking sector, where hierarchical relationships between senior and junior staff are deeply embedded in organizational culture (Hofstede, 1980), role conflicts may be particularly difficult for employees to address or resolve because raising concerns with seniors can be seen as culturally inappropriate. This structural silence around role conflict may explain why this dimension showed one of the highest stress scores in the sample. Organizations should therefore invest in creating safe channels through which employees can openly discuss conflicting role expectations without fear of social or professional consequences (Jain & Cooper, 2012).

The relatively strong psychometric performance of the Co-worker Support (CWS) subscale, with factor loadings ranging from 0.799 to 0.877, a Cronbach's alpha of 0.85, and an AVE of 0.668, is a meaningful finding in its own right. It suggests that Nepali banking employees place a high value on the social and informational support they receive from their colleagues, which aligns with research showing that in collectivist societies, interpersonal relationships at work serve not only as practical resources but also as emotional anchors during stressful periods (Triandis, 1995; Hobfoll, 1989). The Conservation of Resources (COR) theory proposed by Hobfoll (1989) is particularly relevant here, as it argues that social support acts as a protective resource that helps individuals resist the depletion caused by work demands. The strong performance of the CWS dimension in Nepal, therefore, reinforces the importance of team cohesion, peer mentoring, and collaborative workplace cultures as stress-reducing mechanisms in the Nepali banking context.

The overall sample in Method 2 was predominantly female (52.9%), well-educated (62% holding a master's degree or above), and relatively young, with a minimum age of 22 years. These demographic characteristics may have influenced the findings in ways that are worth exploring in future research. Studies have shown that younger, more educated employees tend to

have higher expectations about their working conditions and are more sensitive to perceived inequities in workload and reward (Ahsan, Abdullah, Fie, & Alam, 2009). The relatively high mean scores on job stress items JS15 to JS18, which relate to co-worker support demands and workload among this profile of employees, may partly reflect the heightened expectations and career ambitions of a young, highly educated workforce entering a demanding financial sector (Catalyst, 2020). Future research should examine whether the four-factor structure of the Nepali JSS holds equally well across different age groups, genders, and educational levels within the banking sector.

The discriminant validity analysis, which produced HTMT values well below the 0.85 threshold for all four constructs, confirms that the four dimensions of the Nepali JSS job stress, role expectation conflict, co-worker support, and work-life balance are genuinely distinct from one another and are not simply measuring the same underlying concept (Henseler, Ringle, & Sarstedt, 2015). This is an important finding because it means that organizations and researchers can meaningfully differentiate between the different types of stress that banking employees experience, rather than treating job stress as a single undifferentiated phenomenon. This level of construct differentiation is essential for designing targeted interventions, as the solutions for reducing role conflict are fundamentally different from those needed to improve co-worker support or work-life balance (Quick & Tetrick, 2011).

Nepal's banking sector has expanded rapidly over the past two decades, with the number of commercial banks and financial institutions increasing significantly following economic liberalization (Nepal Rastra Bank, 2023). This rapid growth has brought with it increased regulatory demands, competitive pressure, and expanded service expectations, all of which create a high-stress working environment that is relatively new and understudied in the psychometric literature. The validated Nepali JSS therefore fills a genuine measurement gap and provides researchers with a tool that is not only statistically sound but also contextually grounded in the realities of banking work in Nepal. As Ganster and Rosen (2013) argued, the quality of stress measurement tools directly determines the quality of our understanding of occupational stress

and its health consequences, making the development of locally valid instruments a scientific priority that this study has meaningfully advanced.

## Conclusion

The current study was able to successfully transfer, adapt, and validate the Job Stress Scale (JSS) in the banking sector in Nepal. Through a careful process of translation, synthesis, back-translation, review by experts, and pilot testing, a high level of linguistic and cultural equivalence was established between the original and the Nepali versions of the adapted scale entitled Job Stress Scale. The psychometric properties, like Cronbach's alpha values, test EFA, and CFA together established the reliability and validation of the scale. A Cronbach's alpha was established, revealing a good level of reliability, and an adequacy level was established in CFA as ( $\chi^2/df= 2.38$ , RMSEA = 0.059, CFI = 0.947). A high level was established in content validity indices (I-CVI & S-CVI) that clearly indicated a strong level of agreement among experts, which revealed clarity in items.

The result shows that the Nepali version of JSS has identified four important aspects of work-related stress: job stress, conflict of role expectation, support from co-workers, and work-life balance, which together provide a comprehensive basis for stress measurement of employees. It should be noted, however, that the items testing work-life balance appear relatively weaker in terms of internal consistency, indicating a need for improvement of this aspect of JSS. Nevertheless, JSS, in aggregate, provides a good means of testing psychosocial factors of stress in the banking sector of Nepal.

The current paper is the first to empirically validate the job stress scale in the Nepali environment. This is therefore greatly important, as organizations can now apply the appropriate scale to determine the sources of employee stress, prepare interventions, or even promote employee wellness. Lastly, the JSS, having now been valid for the banking sector, is also important for other workplace environments in Nepal, which would contribute to fostering employee health, lowering employee turnover, or even improving productivity.



## Theoretical Implications

The successful cross-cultural adaptation and psychometric validation of the Job Stress Scale (JSS) in the Nepali context makes a meaningful contribution to the theoretical literature on occupational stress measurement. By demonstrating that a scale originally developed in an Indian organizational context can be reliably adapted for Nepali banking employees, this study extends the body of knowledge on the cross-cultural transferability of stress instruments across South Asian societies. The confirmation of four distinct but interrelated factors, Job Stress (JS), Role Expectation Conflict (REC), Co-worker Support (CWS), and Work-Life Balance (WLB), lends further empirical support to multidimensional conceptualizations of workplace stress, consistent with foundational theoretical models such as Karasek's Demand-Control model (1979) and Hofstede's cultural dimensions framework (1980).

The study also contributes to the growing body of literature arguing that job stress is not a universally uniform construct, but one that is shaped by cultural, organizational, and societal factors. Nepal's collectivist orientation, hierarchical social structures, and the intersection of traditional values with modern organizational demands create a distinctive stress landscape that Western-developed instruments fail to adequately capture. The Nepali JSS, by accounting for these contextual realities, enriches theoretical discussions around culturally responsive measurement in occupational health psychology.

Furthermore, the moderate but noteworthy correlation found between Role Expectation Conflict and Job Stress ( $r = 0.401$ ) adds nuance to understanding how interpersonal and structural workplace dynamics amplify stress experiences in the Nepali banking sector. This aligns with role theory perspectives, reinforcing the theoretical importance of clearly defined role boundaries and expectations in organizational settings.

## Practical Implications



From a practitioner standpoint, the validated Nepali JSS offers organizations in the banking sector a culturally appropriate, reliable, and valid diagnostic tool to systematically assess employee stress levels. Human resource professionals and organizational psychologists can now deploy this instrument to identify specific stress hotspots within their workforce, enabling more targeted and evidence-based intervention strategies.

The identification of high-stress items, particularly those associated with workload and professional expectations (JS15 to JS18), has direct implications for organizational policy. Banking institutions should consider redesigning work processes to reduce role overload, establish clearer performance expectations, and strengthen managerial support systems. The relatively strong Co-worker Support subscale scores suggest that peer relationships are a potential organizational asset that can be strategically leveraged through team-building programs and collaborative work practices.

The findings on Work-Life Balance, which showed lower internal consistency and relatively lower mean scores, signal a pressing area for organizational attention. Banks may need to implement flexible working arrangements, mental wellness programs, and work-life balance policies tailored to the Nepali cultural context, where professional and familial obligations are deeply intertwined. Policymakers and labor regulators could use the validated JSS as part of broader occupational health surveillance systems to monitor stress trends across the banking sector and guide the development of national-level workplace well-being frameworks.

For mental health practitioners, the instrument provides a standardized baseline measure that can be used in pre- and post-intervention assessments, helping clinicians and organizational consultants evaluate the effectiveness of stress management programs. The availability of a validated Nepali-language tool also reduces linguistic and cultural barriers that might otherwise limit the reach and accuracy of psychological assessments in the country.

## Future Directions



The current validation was conducted exclusively within the banking sector. Future studies should validate the Nepali JSS across a broader range of occupational groups, including healthcare workers, educators, government employees, and workers in the manufacturing and service industries. Such efforts would establish the generalizability of the scale across different professional contexts and help identify sector-specific stress profiles unique to Nepal.

The present study employed a cross-sectional design, which limits causal inferences about job stress and its consequences. Future research should adopt longitudinal methodologies to track changes in employee stress levels over time, assess the predictive validity of the Nepali JSS with respect to outcomes such as burnout, absenteeism, turnover intention, and job performance, and examine how organizational and policy interventions moderate stress trajectories.

The Work-Life Balance subscale demonstrated comparatively lower internal consistency (Cronbach's  $\alpha = 0.52$  in the pilot phase, rising to 0.833 after model fitting) and may benefit from item revision or expansion. Future research should focus on developing and testing new items that more accurately reflect the Nepali conceptualization of work-life balance, particularly given the cultural significance of family roles, community obligations, and religious practices that shape how Nepali employees experience the boundary between professional and personal life.

Similarly, the Job Stress (JS) dimension showed marginally lower internal consistency (Cronbach's  $\alpha = 0.64$ ), falling slightly below the commonly accepted threshold of 0.70. Subsequent studies should explore whether additional or revised items can strengthen the reliability and discriminant validity of this subscale, ensuring it adequately captures the full breadth of task-related and psychological stressors experienced by Nepali employees.

In the context of multi-group and comparative studies, future research should investigate whether the factor structure of the Nepali JSS holds invariantly across demographic groups such as gender, age, job role, and educational level. Multi-group confirmatory factor analysis



(MGCFA) would reveal whether different subpopulations within the banking sector experience and report job stress in structurally equivalent ways. Comparative cross-national studies between Nepal and other South Asian or collectivist societies could further illuminate how cul Moreover, with the growing adoption of digital technologies and hybrid work arrangements in Nepal's banking sector, future research should explore emerging stressors such as techno-stress, digital fatigue, and the blurring of work-life boundaries associated with remote work. Updating or supplementing the Nepali JSS to capture these evolving stressor domains would ensure the instrument remains relevant in rapidly changing work environments.

Moreover, with the growing adoption of digital technologies and hybrid work arrangements in Nepal's banking sector, future research should explore emerging stressors such as techno-stress, digital fatigue, and the blurring of work-life boundaries associated with remote work. Updating or supplementing the Nepali JSS to capture these evolving stressor domains would ensure the instrument remains relevant in rapidly changing work environments.

Finally, future studies should move toward intervention-based research, using the Nepali JSS as an outcome measure to evaluate the effectiveness of organizational stress management programs, employee assistance initiatives, and policy reforms. Randomized controlled or quasi-experimental designs would provide stronger evidence for the causal impact of workplace interventions on employee well-being in Nepal.

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