
A General Linear Model Approach: Development Of Psychological Well-Being, Remote Working, Employee Engagement, Job Satisfaction, Scales, Data Analysis And Reporting Concerning To Information Technology Sector

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Abstract

In this article the author elaborates on the construction and development of Remote Working, Employee Engagement, Job Satisfaction, Psychological well-being Scales, and the appropriated statistical methods needed to analyze the respondent's data, reporting the results, using secondary data, with psychological well-being as a dependent variable. The measurement scales constructed are remote working 18 items, with 4 sub-scales; job engagement 20 items with 5 sub-sub-scales, work-life balance 18 items are the independent factors, which have a causal effect on a dependent factor psychological well-being of an employee which has 8 items with 6 sub-scales. The reliability of the survey instrument assessed measuring reliability statistic Cronbach alpha, construct validity, and content validity are tested using face validity and convergent validity taking expert opinion and factor analysis respectively. As the study is measuring six dependent variables related to the psychological well-being of an employee, the author has used the statistical procedure generalized linear model a multivariate multiple regression model, which allows more than one dependent variable in the system and the results were inferences and presented. The measured Cronbach's alpha value indicates that the overall survey instrument was reliable and maintained internal consistency. The results of GLM indicate statistically gender and age differences that are influencing the psychological well-being of an employee. A notable observation was Self-Acceptance was statistically significant and influenced by almost all the predictor variables. The results were presented in detail and inferences provided wherever appropriate

Subjects: Social Psychology, Work, Industrial and Organizational Psychology

Keywords: Psychological well-being, Cronbach's alpha, sub-scale, reliability, data analysis

1. INTRODUCTION

Remote working of working away from the office, from home, or some designated place is now new-normal because of the Covid-19 pandemic this year. The remote working is not just restricted to the information technology sector, but the employees from banking, health, education, state, and central government staff working from home across the world in India. Irrespective of the domain the organizations are finding appropriate ways and methods to accomplish the activities through remote working using the available communication technologies Zoom, skype, bluejeans, Telegram, MS-Teams. The organizations are interacting with the staff through virtual meetings/webinars using the said technologies (Prasad et al., 2020). Remote working will stay across the world wherever possible for longer periods and employees need to adjust with them maintaining work-life balance

Employee engagement is an employee's physical, emotional, intellectual, and cognitive commitment to the organization's vision and mission to meet the predefined goals and objectives. Employee engagement is necessary for an organization's financial health improves operational efficiency and health of the human resources (Prasad et al., 2020). The organizations are striving for employee engagement at an optimal level using several approaches like rewards, promotions, training, and team-building mechanisms. Prasad et al., (2020) reported in their study on that gamification, applying game mechanics in non-gaming contexts, intrinsically motivating the employees for engagement emotionally, physically, and intellectually for better productivity.

Job satisfaction is a pleasurable, emotional, and cognitive situation, to achieve certain pre-defined things from the fulfillment of organizational goals through an appraisal. Job satisfaction can be viewed on the employee's physical, emotional, and absorption towards the assigned work. An employee's job satisfaction depends on the working environment, interest in work, organizational climate, career development, nature of work, and several other factors. Job-satisfaction is an essential factor for employee turnover, absenteeism, high productivity, loyalty, and commitment to the organization. An employee can get intrinsic job satisfaction feeling happy about the nature and kind of job and responsibilities, whereas the extrinsic factors job environment and congenial environment, pay, salaries, benefits, commuting to the workplace.

Psychological well-being is a person's positive cognitive functioning including emotional, behavioral relatedness with others for his/her sense of mastery and personal growth, whereas subjective well-being is a characteristic or dimension that affects the life satisfaction judgments. In the recent past, the concept of psychological well-being has become an important factor in the organizations of all the domains. The psychological well-being is important for an employee's health, the productivity of the organization. Research showed that a person with good psychological well-being will be healthy and live longer (Richard Burns, 2016). Several theories and measurement scales were developed, however, the Ryff scales of both shorter versions with 18 items and a longer version (42 items) have become more reliable and popular for assessing the psychological well-being of employees.

2. REVIEW OF LITERATURE

Prasad et al., (2020) reported the merit and demerits of remote working during the Covid-19 Pandemic situation and indicted workplace isolation is the major problem for the employees' psychological wellbeing using GLM analysis. The study further reported that peer and

employee trust is the main concern for remote working and other challenges an employee need to face or different timing zones, distractions in home, overworking, bad habits, etc. Hickman (2019) reported workplace isolation in the remote workers in a study related to the customer service organization of the United States of America. Several researchers used Emerson's social exchange theory to study the remote working and workplace isolation that helped organizations to develop appropriate management strategies to handle remote workers (Greer & Payne, 2014; Shankar et al., 2017). Greer and Payne (2014) suggested technology and supervisor access are directly proportional and the more employees communicate, the better handling of the employee problems associated with remote working.

Prasad et al., (2020) reported how the employees can be engaged in applying motivational exercises, behavioral change, and gamification Saks (2006) reported that employee engagement is directly related to the pay structure and other resources they receive from the organization. Physical, emotional absorption is needed from the employees to have high employee engagement. The availability of physical resources to meet an employee's work demands, organizational support is essential for employee engagement (Kahn, 1990). Saks (2006) emphasized the strong and positive relationship between job engagement organizational engagement as their antecedents differ in several ways. He further suggested that an employee's psychological well-being is an important aspect of engaging employees. Several studies reported higher productivity and profits when better employee engagement is possible, which includes customer loyalty, business, growth, and Profitability.

Several researchers studied job satisfaction through a wide range of jobs (Tziner & Lotham, 1989; Walsh, 1982) reported a wide variety of jobs. Walsh (1982) emphasized on job role and worker satisfaction, comparing jobs related to garbage men, teachers, bartenders, and professors. Hackman and Lawler (1971) investigated the effects of job activities and characters and on job satisfaction. The variety, autonomy, task identity, and feedback are the characteristics related to job satisfaction. Individual personality characteristics also affect job satisfaction. Judge et al., (2017) reported the discussed recent developments in assessing job satisfaction through statistical methods and other themes related to job satisfaction in the future. Job satisfaction, work engagement, were positively interrelated and negatively correlated with turnover and the statistical methods reveal that self-efficacy and job satisfaction are inter-related (De Simone et al., 2018). Scanlan and Still 2019 studied the Relationships between burnout, job satisfaction, job demands, and resources for mental health personnel in Australian mental health service and reported all four factors are inter-related and one-factor effects the other.

Occupational stress affects the psychological wellbeing of an employee and appropriate coping strategies are needed to effectively cop the stress and improve the psychological well-being (Prasad et al., 2020). Winfield et al.,(2012) reported a strong association between psychological well-being and psychological distress using a telephonic survey of the variables of psychological distress. The authors studied the variables positive Relations with Others, Environmental Mastery, and Satisfaction. The authors reported that variables positively associated with psychological well-being were indifferent to psychological distress and vice versa. Poudgel et al., (2020) studied the social support and psychological well-being among Nepali Nurses and reported that social support is directly reported and the Nepalese adolescents who receive better social support will have more psychological wellbeing.

2.1 Research Gap

Though several researchers researched psychological well-being, employee engagement, the author observed sparse research on remote working, psychological well-being, and job satisfaction issues. Further, the researchers only reported the results of their study, but not reported any construct, or questionnaire related to the factors that being studied. Therefore, the author carried out a study using the secondary data from his publication, constructed the questionnaire, reported the data analysis and reporting using four said scales.

2.2 Statement of the problem

The authors identified that there are no standardized measurement scales for measuring Remote Working, Employee Engagement, Job Satisfaction, Psychological well-being Scales where more than one dependent variable are measured at a time using multivariate analysis General Linear Model analysis.

2.3 Need for the study

To develop Remote Working, Employee Engagement, Job Satisfaction, Psychological well-being Scales, and analyse data and report the results using A General Linear Model Approach Concerning to Information Technology Sector

2.4 Objective

Development of Remote Working, Employee Engagement, Job Satisfaction, Psychological well-being Scales, Data Analysis and Reporting so the readers can use and follow a similar procedure with minor modifications to carry out similar research

2.5 Hypothesis

H₀₁: Job engagement, remote working, and job-satisfaction factors significantly influence the psychological well-being of an employee in the Information Technology Sector

H₀₂: There are significant gender and age differences on factors affecting the psychological wellbeing of the employees in Information Technology sector

2.6 Theoretical Framework

The theoretical framework for the proposed study developed following the models and outcomes of remote working and work-life balance research (Muralidhar et al., 2020), psychological well-being, remote working, employee engagement and job satisfaction (Prasad et al., 2020) and presented in Figure 1.

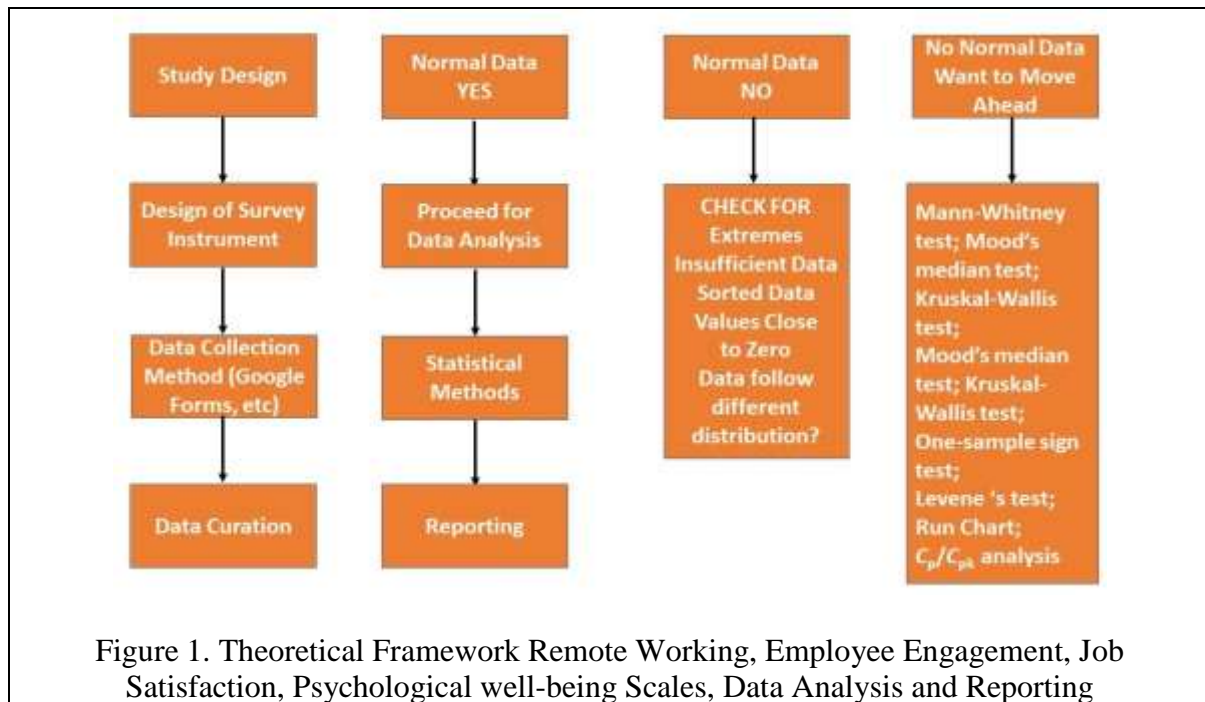


Figure 1. Theoretical Framework Remote Working, Employee Engagement, Job Satisfaction, Psychological well-being Scales, Data Analysis and Reporting

The statistical methods that required to be carried out for the normal data and equivalent test for if the data the data is not normally distributed are presented in the (Table 1).

Table 1: Comparison of Statistical Analysis Tools for Normally and Non-Normally Distributed Data

*Tools for Normally Distributed Data	Equivalent Tools for Non-Normally Distributed Data**	Distribution Required
T-test	Mann-Whitney test; Mood's median test; Kruskal-Wallis test	Any
ANOVA	Mood's median test; Kruskal-Wallis test	Any
Paired t-test	One-sample sign test	Any
F-test; Bartlett's test	Levene's test	Any
Individuals control chart	Run Chart	Any
Cp/Cpk analysis	Cp/Cpk analysis	Weibull; log-normal; largest extreme value; Poisson; exponential; binomial

*statistical methods normally distributed data that can be carried out, In the second column the table indicates the statistical methods that do not require normal data distribution and in the s column equivalent statistical methods for non-normally distributed data presented**

3. METHODOLOGY: DATA COLLECTION, DESCRIPTIVE ANALYSIS

3.1 Research Instrument (Survey Questionnaire)

Remote Working: Remote working questionnaire is based on a questionnaire developed by Prasad et. al., (2020) The scale has 18 items with four sub-scales, organizational climate (5) technology (4 items), workplace isolation (5), teamwork (4 items). The employee engagement based on the Utrecht work engagement scale (Schaufeli & Bakker, 2003) and

Job Engagement scale (Rich, LePine and Crawford, 2010) scale has 20 items and six-sub scales, physical, emotional, dedication, absorption, vigor, and cognitive; job-satisfaction has 18 items with work engagement, work condition, organizational culture, work-life balance, job clarify and career development a modified version based on Job satisfaction survey Paul E. Spector, 1985; and psychological well-being has six sub-scales. Environment Mastery; Positive Growth; Positive Relations; Self-Acceptance; Antinomy, Purpose of Life-based on the shortened version of Ryff and Keyes (1985, 1989, 1995), where the authors made a minor modification to suit the present study.

3.2 How to develop a questionnaire?

The scale developed by Ryff and Keys (1995) an 18 item shortened version scale of psychological well-being is more popular. As Remote working is a new concept a scale developed based on Prasad et. al., (2020) is a more practical, modified version of the Job satisfaction survey by Paul E Spector 1985 and the Job engagement scale developed based on JES and UWES were used in this study.

The points to be considered for developing a questionnaire

- The researcher should decide what exactly what he/she is going to measure
- The researcher should convey clearly to the respondent what exactly he means about the statement
- The researcher should appropriately modify the questionnaire to suit/his her study
- The researcher should convey clearly the research objective of why the proposed survey being carried out.

The developed questionnaires are presented in Appendix-I.

3.3 Determination of sample size, source of data, sample selection

The most appropriate method for determining the sample size for survey research is to use Yamane (1967) formula for the known size of the population and Cochran (1977) formula for unknown population size. The sample was selected from secondary data of a study based on Prasad et. al., (2018; unpublished thesis; Prasad et. al. 2020).

3.4 Data collection and period of study

The data can be collected deploying the survey questionnaires on google forms or other freely available like monkey surveys from the respondents. The links need to be provided to the respondents who want to submit online and hard copies also can be distributed if needed. This will save lots of time and errors in keying the data. The responses can be stored preferably in spreadsheet software for analysis. The period of the study was January 2016-June 2020.

3.5 Data curation and Tools used for the study

The removal of inappropriate data, inconsistent data, inaccurately keyed in data need to be removed with deleting such records. All the records with complete data should be used for data analysis. The statistical package for social sciences (SPSS) ver 27 was used for the data analysis. The data was collected using a survey questionnaire developed for measuring the factors associated with Remote Working, Employee Engagement, Job Satisfaction, Psychological well-being factors. Appropriate statistical tools used for carrying our descriptive analysis like Microsoft Excel and MatLab.

3.6 Normality and Reliability

The data normality can be assessed by verifying the normal distribution peaks in the middle, and are symmetrical about the mean. The histograms can be plotted for variables of interest and the normal approximation curve need to be verified. Another method normal Q-Q plots to assess the normality generated and observed data normally distributed and screen for outliers

3.7 Test for normality of data

The Shapiro-Wilk test can be used to test the data normality. For the approximately normally distributed data, p-value should be greater than 0.05 ($p > 0.05$) so the data is normal at the 0.05 level of significance. If the data is normal to carry out the analysis using appropriate statistical methods else carry out other equal statistical tests as indicated in Figure 1.

3.8 Reliability of the questionnaire

The reliability of the questionnaire is generally assessed by measuring the Cronbach alpha value for each statement. If the Cronbach's alpha value is < 0.6 for a particular statement the statement can be retained and if it is between > 0.5 and < 0.6 you can include the statement in the sub-scale for analysis as the sub-scale consists of a group of statements and Cronbach's alpha values for sub-scale is measured, and in the same way measure the Cronbach alpha all the sub-scales.

The demography of the sample and sample description (Table 2 and Table 3), reliability statistics are presented (Table 4).

Gender	Frequency	Percent
Men	375	49.6
Women	381	50.4
Total	756	100

Source: Secondary data

Age group	Number of respondents
20-30	225
31-35	260
36-40	181
>40	90

Source: Secondary data

Sl. No	Study Variable	Number of items	Cronbach's alpha
	Remote working	4	0.83
1	Technology	5	0.84

2	Teamwork	4	0.76
3	Organizational climate	5	0.78
4	Workplace isolation	4	0.78
	Job Engagement	6	0.81
5	Physical	3	0.82
6	Dedication	3	0.81
7	Emotional	4	0.80
8	Vigor	3	0.83
9	Absorption	3	0.81
10	Cognitive	4	0.84
	Job satisfaction	6	0.76
11	Work engagement	3	0.73
12	Working conditions	3	0.78
13	Organization culture	3	0.75
14	Job Clarity	3	0.79
15	Carrier development	3	0.74
16	Work-life balance	3	0.75
	Psychological Well-Being	6	0.79
17	Environmental Mastery	3	0.70
18	Self-acceptance	3	0.72
19	Purpose of Life	3	0.73
20	Autonomy	3	0.74
21	Personal Growth	3	0.73
22	Positive relations	3	0.79
	Total items	74	0.85 (Overall)
Source: Secondary data (Prasad et. al., 2015, 2018, 2020)			

3.9 Measurement of Remote working, job satisfaction, and job engagement: The three-factor measured using a five-point Likert-Type scale, with ratings vary from of Strongly agree =5; Agree = 4; Neutral =3; Disagree =2; Strongly disagree 1 score used to measure all the sub-scales and the total items measured are 74 Prasad et. al., (2016, 2017, 2018).

3.10 Measurement of psychological wellbeing based factors: A shortened version of the 18-point scale based on Ryff and Keyes (1995) was used. This is a 7-point rating scale with Strongly agree = 7, Somewhat agree = 6, A little agree = 5, Neither agree nor disagree = 4, A little disagree = 3, Somewhat disagree = 2, Strongly disagree =1 and the factors measured are Autonomy, Environmental Mastery, Personal Growth, Positive Relations, Purpose in Life and the Self-Acceptance with 3 items for each factor. This seven-point scale was converted to a 5-point scale for easing of doing analysis using linear transformation procedures based on Prasad et. al., (2020) and IBM SPSS Ver. 27 (2019).

4. DATA ANALYSIS AND RESULTS

The secondary data analyzed using the general linear model multivariable analysis to subject six dependent variables the scale psychological well-being with items Environment Mastery,

Personal Growth, Autonomy =, Self-Acceptance, Purpose Of Life, and Positive Relations and the results are displayed in the following sections.

General Linear Model (GLM) Multivariate analysis: In this study, the dependent variable psychological well-being is measured with six subscales, Environment Mastery, Personal Growth, Positive Relations, Self-Acceptance, Autonomy and Purpose of Life against 16 independent variables Remote working with 4 sub-scales: Team Work, Technology, Organizational climate, Workplace isolation; Job Engagement with six subscales: Physical, Dedication, Emotional, Vigor, Absorption and Cognitive factors; Job- satisfaction with six-sub-scales: Work engagement, Working conditions, Organization culture, Job Clarity, Career development, and Work-life balance.

The dependent variables are subjected to General Linear Model (GLM) multivariate analysis as the study measures the interest to measure the effect of an independent variable on each of the psychological wellbeing factors as described earlier. In GLM model more than one dependent variable can be predicted using independent variables, and we also studied to observe if there are any significant age group and gender differences that affect the psychological wellbeing of an employee

Test of Homogeneity of Variances

Table 5: Box's Test of Equality of Covariance Matrice ^a	
Box's M	43.582
F	2.068
df1	20
df2	87921.377
Sig.	0.290
^a Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups. a. Design: Intercept + Physical + Dedication + Emotional + Vigor + Absorption + Cognitive + Technology + Teamwork + Organization Climate + Workplace Isolation + Work Engagement + Working Conditions + Organization Culture + Job Clarity + Career Development + Gender + Age + Gender * Age	

The null hypothesis for this test is that the observed covariance matrices for the dependent variables are equal across groups. The non-significant test result ($p > 0.05$) indicates that the covariance matrices are equal (Table 5).

\The Bartlett's test (Snedecor and Cochran, 1989) applied to test all the samples have equal homogeneity of variances to carry out the GLM analysis. The results indicate Bartlett's test of Sphericity significant (0.00) indicates the matrices for all the three variables are not identity matrix (Table 6), so the null hypothesis is rejected. The data generated through the responses are fit for carrying our further analysis.

Table 6: KMO and Bartlett's Test statistic of independent factors	
Bartlett's test of Sphericity ^a	
Likelihood Ratio	0.000
Approx. Chi-Square	1352.772
Df	20
Sig.	0.000
Tests the null hypothesis that the residual covariance matrix is proportional to an identity matrix.	
a. Design: Intercept + Physical + Dedication + Emotional + Vigor + Absorption + Cognitive + Technology + Teamwork + Organization Climate + Workplace Isolation + Work Engagement + Working Conditions + Organization Culture + Job Clarity + Career Development + Gender + Age + Gender * Age	

The homogeneity of variance in the same is measured using Levene's test of equality of error variances. The significance of Levene's test is > 0.05 , which suggests that the equal variances assumption is not violated (Table 7)

Table 7: Levene's Test of Equality of Error Variances ^a				
	F	df1	df2	Sig.
Environment Mastery	1.424	1	748	0.264
Personal Growth	0.261	1	748	0.608
Autonomy	0.602	1	748	0.474
Self-Acceptance	0.564	1	748	0.376
Purpose Of Life	0.382	1	748	0.538
Positive Relations	0.417	1	748	0.535
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.				
a. Design: Intercept + Physical + Dedication + Emotional + Vigor + Absorption + Cognitive + Technology + Teamwork + Organization Climate + Workplace Isolation + Work Engagement + Working Conditions + Organization Culture + Job Clarity + Career Development + Gender + Age + Gender * Age				

The results of the multivariate test (Table 8) indicate that all the independent factors and their respected sub-scales under Remote Working, Job Engagement, and Job-satisfaction statistically significant and are influencing the physiological well-being of an employee. For example, physical engagement factor of the scale Job-engagement has the values of Wilks $\lambda=0.801$, $(F_{20, 728})=30.174$, $p<0.005$, $\eta^2=0.199$; Organisational Policies $\lambda=0.801$, $(F_{20, 728})=30.174$, $p<0.05$, $\eta^2=0.097$; remote working factor Technology $\lambda=0.719$, $(F_{20, 728})=47.499$, $p<0.005$, $\eta^2=0.281$ Job Engagement factor working conditions $\lambda=0.775$, $(F_{20, 728})=35.249$, $p<0.005$, $\eta^2=0.225$ and so on are statistically significant and influencing the psychological well-being of an employee (Table 8).

A separate ANOVA was run for each dependent variable and with each independent factor and the results are: The Job Engagement factors physical engagement with the job is statistically significant and influencing the psychological well-being factors self-acceptance, personal growth, positive relations, and environmental master; dedication is influencing self-acceptance and environmental mastery; emotional factors is influencing all the psychological well-being factor except the purpose of life; vigor is influencing all the factors except positive relations; absorption is influencing self-acceptance, autonomy, positive relations, and environmental mastery; and so on all the results are presented in Table 9.

Table 8: The General Linear Model - Multivariate Tests^a

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept		0.418	87.016 ^b	6.000	728.000	0.000	0.418
		0.582	87.016 ^b	6.000	728.000	0.000	0.418
	Hotelling's Trace	0.717	87.016 ^b	6.000	728.000	0.000	0.418
	Roy's Largest Root	0.717	87.016 ^b	6.000	728.000	0.000	0.418
Physical	Pillai's Trace	0.199	30.174 ^b	6.000	728.000	0.000	0.199
	Wilks' Lambda	0.801	30.174 ^b	6.000	728.000	0.000	0.199
	Hotelling's Trace	0.249	30.174 ^b	6.000	728.000	0.000	0.199
	Roy's Largest Root	0.249	30.174 ^b	6.000	728.000	0.000	0.199
Dedication	Pillai's Trace	0.143	20.294 ^b	6.000	728.000	0.000	0.143
	Wilks' Lambda	0.857	20.294 ^b	6.000	728.000	0.000	0.143
	Hotelling's Trace	0.167	20.294 ^b	6.000	728.000	0.000	0.143
	Roy's Largest Root	0.167	20.294 ^b	6.000	728.000	0.000	0.143
Emotional	Pillai's Trace	0.183	27.253 ^b	6.000	728.000	0.000	0.183
	Wilks' Lambda	0.817	27.253 ^b	6.000	728.000	0.000	0.183
	Hotelling's Trace	0.225	27.253 ^b	6.000	728.000	0.000	0.183
	Roy's Largest Root	0.225	27.253 ^b	6.000	728.000	0.000	0.183

	Root	5				0	
Vigor	Pillai's Trace	0.15 5	22.321 ^b	6.000	728.000	0.00 0	0.155
	Wilks' Lambda	0.84 5	22.321 ^b	6.000	728.000	0.00 0	0.155
	Hotelling's Trace	0.18 4	22.321 ^b	6.000	728.000	0.00 0	0.155
	Roy's Largest Root	0.18 4	22.321 ^b	6.000	728.000	0.00 0	0.155
Absorption	Pillai's Trace	0.23 5	37.351 ^b	6.000	728.000	0.00 0	0.235
	Wilks' Lambda	0.76 5	37.351 ^b	6.000	728.000	0.00 0	0.235
	Hotelling's Trace	0.30 8	37.351 ^b	6.000	728.000	0.00 0	0.235
	Roy's Largest Root	0.30 8	37.351 ^b	6.000	728.000	0.00 0	0.235
Cognitive	Pillai's Trace	0.21 8	33.818 ^b	6.000	728.000	0.00 0	0.218
	Wilks' Lambda	0.78 2	33.818 ^b	6.000	728.000	0.00 0	0.218
	Hotelling's Trace	0.27 9	33.818 ^b	6.000	728.000	0.00 0	0.218
	Roy's Largest Root	0.27 9	33.818 ^b	6.000	728.000	0.00 0	0.218
Technology	Pillai's Trace	0.28 1	47.499 ^b	6.000	728.000	0.00 0	0.281
	Wilks' Lambda	0.71 9	47.499 ^b	6.000	728.000	0.00 0	0.281
	Hotelling's Trace	0.39 1	47.499 ^b	6.000	728.000	0.00 0	0.281
	Roy's Largest Root	0.39 1	47.499 ^b	6.000	728.000	0.00 0	0.281
Teamwork	Pillai's Trace	0.12 1	16.733 ^b	6.000	728.000	0.00 0	0.121
	Wilks' Lambda	0.87 9	16.733 ^b	6.000	728.000	0.00 0	0.121
	Hotelling's Trace	0.13 8	16.733 ^b	6.000	728.000	0.00 0	0.121
	Roy's Largest Root	0.13 8	16.733 ^b	6.000	728.000	0.00 0	0.121
Organization Climate	Pillai's Trace	0.14 2	20.122 ^b	6.000	728.000	0.00 0	0.142
	Wilks' Lambda	0.85 8	20.122 ^b	6.000	728.000	0.00 0	0.142
	Hotelling's Trace	0.16 6	20.122 ^b	6.000	728.000	0.00 0	0.142

	Roy's Largest Root	0.166	20.122 ^b	6.000	728.000	0.000	0.142
Workplace Isolation	Pillai's Trace	0.336	61.280 ^b	6.000	728.000	0.000	0.336
	Wilks' Lambda	0.664	61.280 ^b	6.000	728.000	0.000	0.336
	Hotelling's Trace	0.505	61.280 ^b	6.000	728.000	0.000	0.336
	Roy's Largest Root	0.505	61.280 ^b	6.000	728.000	0.000	0.336
Work Engagement	Pillai's Trace	0.128	17.872 ^b	6.000	728.000	0.000	0.128
	Wilks' Lambda	0.872	17.872 ^b	6.000	728.000	0.000	0.128
	Hotelling's Trace	0.147	17.872 ^b	6.000	728.000	0.000	0.128
	Roy's Largest Root	0.147	17.872 ^b	6.000	728.000	0.000	0.128
Working Conditions	Pillai's Trace	0.225	35.249 ^b	6.000	728.000	0.000	0.225
	Wilks' Lambda	0.775	35.249 ^b	6.000	728.000	0.000	0.225
	Hotelling's Trace	0.291	35.249 ^b	6.000	728.000	0.000	0.225
	Roy's Largest Root	0.291	35.249 ^b	6.000	728.000	0.000	0.225
Organization Culture	Pillai's Trace	0.258	42.282 ^b	6.000	728.000	0.000	0.258
	Wilks' Lambda	0.742	42.282 ^b	6.000	728.000	0.000	0.258
	Hotelling's Trace	0.348	42.282 ^b	6.000	728.000	0.000	0.258
	Roy's Largest Root	0.348	42.282 ^b	6.000	728.000	0.000	0.258
Job Clarity	Pillai's Trace	0.588	172.874 ^b	6.000	728.000	0.000	0.588
	Wilks' Lambda	0.412	172.874 ^b	6.000	728.000	0.000	0.588
	Hotelling's Trace	1.425	172.874 ^b	6.000	728.000	0.000	0.588
	Roy's Largest Root	1.425	172.874 ^b	6.000	728.000	0.000	0.588
Career Development	Pillai's Trace	0.095	12.732 ^b	6.000	728.000	0.000	0.095
	Wilks' Lambda	0.905	12.732 ^b	6.000	728.000	0.000	0.095
	Hotelling's	0.10	12.732 ^b	6.000	728.000	0.000	0.095

	Trace	5				0	
	Roy's Largest Root	0.10 5	12.732 ^b	6.000	728.000	0.00 0	0.095
Gender	Pillai's Trace	0.28 5	48.265 ^b	6.000	728.000	0.00 0	0.285
	Wilks' Lambda	0.71 5	48.265 ^b	6.000	728.000	0.00 0	0.285
	Hotelling's Trace	0.39 8	48.265 ^b	6.000	728.000	0.00 0	0.285
	Roy's Largest Root	0.39 8	48.265 ^b	6.000	728.000	0.00 0	0.285
Age	Pillai's Trace	0.69 6	36.775	18.000	2190.00 0	0.00 0	0.232
	Wilks' Lambda	0.43 0	39.814	18.000	2059.58 0	0.00 0	0.245
	Hotelling's Trace	1.04 7	42.263	18.000	2180.00 0	0.00 0	0.259
	Roy's Largest Root	0.68 7	83.530 ^c	6.000	730.000	0.00 0	0.407
Gender * Age	Pillai's Trace	0.91 2	53.129	18.000	2190.00 0	0.00 0	0.304
	Wilks' Lambda	0.30 7	59.310	18.000	2059.58 0	0.00 0	0.325
	Hotelling's Trace	1.58 2	63.850	18.000	2180.00 0	0.00 0	0.345
	Roy's Largest Root	0.94 2	114.62 6 ^c	6.000	730.000	0.00 0	0.485
a. Design: Intercept + Physical + Dedication + Emotional + Vigor + Absorption + Cognitive + Technology + Teamwork + Organization Climate + Workplace Isolation + Work Engagement + Working Conditions + Organization Culture + Job Clarity + Career Development + Gender + Age + Gender * Age							
b. Exact statistic							
c. The statistic is an upper bound on F that yields a lower bound on the significance level.							
d. Computed using alpha = .05							

Table 9: General Linear Model: Tests of Between-Subjects Effects

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Self-Acceptance	89.746 ^a	22	4.079	45.349	0.000	0.576
	Purpose of Life	302.501 ^b	22	13.750	130.554	0.000	0.797

	Autonomy	43.072 ^c	22	1.958	27.392	0.00 0	0.451
	Personal Growth	196.727 ^d	22	8.942	66.153	0.00 0	0.665
	Positive Relations	137.648 ^e	22	6.257	95.484	0.00 0	0.741
	Environment Mastery	77.687 ^f	22	3.531	71.714	0.00 0	0.683
Intercept	Self-Acceptance	11.025	1	11.02 5	122.56 1	0.00 0	0.143
	Purpose of Life	5.905	1	5.905	56.066	0.00 0	0.071
	Autonomy	7.945	1	7.945	111.16 2	0.00 0	0.132
	Personal Growth	36.235	1	36.23 5	268.06 4	0.00 0	0.268
	Positive Relations	0.003	1	0.003	0.041	0.83 9	0.000
	Environment Mastery	9.178	1	9.178	186.39 9	0.00 0	0.203
Physical	Self-Acceptance	2.038	1	2.038	22.655	0.00 0	0.030
	Purpose of Life	0.021	1	0.021	0.195	0.65 9	0.000
	Autonomy	0.012	1	0.012	0.165	0.68 5	0.000
	Personal Growth	7.489	1	7.489	55.399	0.00 0	0.070
	Positive Relations	0.360	1	0.360	5.494	0.01 9	0.007
	Environment Mastery	0.752	1	0.752	15.278	0.00 0	0.020
Dedication	Self-Acceptance	0.922	1	0.922	10.245	0.00 1	0.014
	Purpose of Life	0.210	1	0.210	1.996	0.15 8	0.003
	Autonomy	0.030	1	0.030	0.416	0.51 9	0.001
	Personal Growth	0.379	1	0.379	2.803	0.09 5	0.004
	Positive Relations	0.155	1	0.155	2.364	0.12 5	0.003
	Environment Mastery	3.069	1	3.069	62.325	0.00 0	0.078
Emotional	Self-Acceptance	6.755	1	6.755	75.090	0.00 0	0.093
	Purpose of Life	0.004	1	0.004	0.038	0.84	0.000

						5	
	Autonomy	1.222	1	1.222	17.098	0.00 0	0.023
	Personal Growth	5.253	1	5.253	38.862	0.00 0	0.050
	Positive Relations	0.272	1	0.272	4.144	0.04 2	0.006
	Environment Mastery	0.264	1	0.264	5.369	0.02 1	0.007
Vigor	Self-Acceptance	0.728	1	0.728	8.092	0.00 5	0.011
	Purpose of Life	0.588	1	0.588	5.582	0.01 8	0.008
	Autonomy	0.582	1	0.582	8.136	0.00 4	0.011
	Personal Growth	3.601	1	3.601	26.636	0.00 0	0.035
	Positive Relations	0.109	1	0.109	1.665	0.19 7	0.002
	Environment Mastery	3.791	1	3.791	76.984	0.00 0	0.095
Absorption	Self-Acceptance	0.370	1	0.370	4.118	0.04 3	0.006
	Purpose of Life	0.356	1	0.356	3.381	0.06 6	0.005
	Autonomy	8.829	1	8.829	123.52 7	0.00 0	0.144
	Personal Growth	0.084	1	0.084	0.623	0.43 0	0.001
	Positive Relations	0.072	1	0.072	1.103	0.29 4	0.002
	Environment Mastery	1.187	1	1.187	24.104	0.00 0	0.032
Cognitive	Self-Acceptance	2.174	1	2.174	24.165	0.00 0	0.032
	Purpose of Life	0.069	1	0.069	0.659	0.41 7	0.001
	Autonomy	0.469	1	0.469	6.563	0.01 1	0.009
	Personal Growth	1.258	1	1.258	9.308	0.00 2	0.013
	Positive Relations	0.615	1	0.615	9.384	0.00 2	0.013
	Environment Mastery	5.384	1	5.384	109.34 1	0.00 0	0.130
Technology	Self-Acceptance	0.725	1	0.725	8.058	0.00 5	0.011

	Purpose of Life	4.148	1	4.148	39.380	0.00 0	0.051
	Autonomy	1.790	1	1.790	25.043	0.00 0	0.033
	Personal Growth	10.499	1	10.49 9	77.669	0.00 0	0.096
	Positive Relations	14.146	1	14.14 6	215.88 1	0.00 0	0.228
	Environment Mastery	0.342	1	0.342	6.942	0.00 9	0.009
Teamwork	Self-Acceptance	0.289	1	0.289	3.217	0.07 3	0.004
	Purpose of Life	0.574	1	0.574	5.450	0.02 0	0.007
	Autonomy	0.266	1	0.266	3.719	0.05 4	0.005
	Personal Growth	1.098	1	1.098	8.121	0.00 4	0.011
	Positive Relations	0.077	1	0.077	1.173	0.27 9	0.002
	Environment Mastery	3.251	1	3.251	66.033	0.00 0	0.083
Organization Climate	Self-Acceptance	0.199	1	0.199	2.217	0.13 7	0.003
	Purpose of Life	0.017	1	0.017	0.161	0.68 9	0.000
	Autonomy	2.117	1	2.117	29.620	0.00 0	0.039
	Personal Growth	6.262	1	6.262	46.328	0.00 0	0.059
	Positive Relations	3.148	1	3.148	48.047	0.00 0	0.062
	Environment Mastery	4.987	1	4.987	101.27 1	0.00 0	0.121
Workplace Isolatin	Self-Acceptance	7.017	1	7.017	78.004	0.00 0	0.096
	Purpose of Life	0.727	1	0.727	6.899	0.00 9	0.009
	Autonomy	0.006	1	0.006	0.083	0.77 3	0.000
	Personal Growth	0.035	1	0.035	0.257	0.61 2	0.000
	Positive Relations	0.184	1	0.184	2.804	0.09 4	0.004
	Environment Mastery	4.281	1	4.281	86.931	0.00 0	0.106
Work Engagement	Self-Acceptance	0.083	1	0.083	0.919	0.33	0.001

						8	
	Purpose of Life	0.111	1	0.111	1.056	0.304	0.001
	Autonomy	0.900	1	0.900	12.592	0.000	0.017
	Personal Growth	3.552	1	3.552	26.277	0.000	0.035
	Positive Relations	0.072	1	0.072	1.092	0.296	0.001
	Environment Mastery	0.029	1	0.029	0.599	0.439	0.001
Working Conditions	Self-Acceptance	2.208	1	2.208	24.551	0.000	0.032
	Purpose of Life	9.867	1	9.867	93.688	0.000	0.113
	Autonomy	0.001	1	0.001	0.019	0.892	0.000
	Personal Growth	3.517	1	3.517	26.017	0.000	0.034
	Positive Relations	2.048	1	2.048	31.250	0.000	0.041
	Environment Mastery	1.273	1	1.273	25.848	0.000	0.034
Organization Culture	Self-Acceptance	0.227	1	0.227	2.526	0.112	0.003
	Purpose of Life	1.995	1	1.995	18.945	0.000	0.025
	Autonomy	0.104	1	0.104	1.449	0.229	0.002
	Personal Growth	1.457	1	1.457	10.779	0.001	0.014
	Positive Relations	7.982	1	7.982	121.820	0.000	0.143
	Environment Mastery	0.224	1	0.224	4.549	0.033	0.006
Job Clarity	Self-Acceptance	0.216	1	0.216	2.403	0.121	0.003
	Purpose of Life	30.855	1	30.855	292.965	0.000	0.286
	Autonomy	0.088	1	0.088	1.237	0.267	0.002
	Personal Growth	2.955	1	2.955	21.858	0.000	0.029
	Positive Relations	4.740	1	4.740	72.334	0.000	0.090
	Environment Mastery	0.122	1	0.122	2.485	0.115	0.003

Career Development	Self-Acceptance	2.072	1	2.072	23.038	0.000	0.030
	Purpose of Life	0.026	1	0.026	0.249	0.618	0.000
	Autonomy	0.650	1	0.650	9.090	0.003	0.012
	Personal Growth	0.556	1	0.556	4.114	0.043	0.006
	Positive Relations	0.722	1	0.722	11.025	0.001	0.015
	Environment Mastery	0.897	1	0.897	18.219	0.000	0.024
Gender	Self-Acceptance	10.482	1	10.482	116.521	0.000	0.137
	Purpose of Life	8.504	1	8.504	80.745	0.000	0.099
	Autonomy	0.078	1	0.078	1.091	0.297	0.001
	Personal Growth	4.527	1	4.527	33.490	0.000	0.044
	Positive Relations	1.765	1	1.765	26.928	0.000	0.035
	Environment Mastery	2.497	1	2.497	50.713	0.000	0.065
Age	Self-Acceptance	12.886	3	4.295	47.751	0.000	0.163
	Purpose of Life	8.873	3	2.958	28.082	0.000	0.103
	Autonomy	6.344	3	2.115	29.586	0.000	0.108
	Personal Growth	4.072	3	1.357	10.041	0.000	0.039
	Positive Relations	7.387	3	2.462	37.578	0.000	0.133
	Environment Mastery	5.317	3	1.772	35.994	0.000	0.128
Gender * Age	Self-Acceptance	14.008	3	4.669	51.907	0.000	0.175
	Purpose of Life	4.806	3	1.602	15.209	0.000	0.059
	Autonomy	3.042	3	1.014	14.186	0.000	0.055
	Personal Growth	11.643	3	3.881	28.711	0.000	0.105
	Positive Relations	9.394	3	3.131	47.789	0.000	0.164
	Environment	8.018	3	2.673	54.279	0.000	0.182

	Mastery					0	
Error	Self-Acceptance	65.937	73 3	0.090			
	Purpose of Life	77.200	73 3	0.105			
	Autonomy	52.390	73 3	0.071			
	Personal Growth	99.083	73 3	0.135			
	Positive Relations	48.031	73 3	0.066			
	Environment Mastery	36.093	73 3	0.049			
Total	Self-Acceptance	9644.517	75 6				
	Purpose of Life	8846.500	75 6				
	Autonomy	7838.117	75 6				
	Personal Growth	12153.00 0	75 6				
	Positive Relations	5408.651	75 6				
	Environment Mastery	7632.840	75 6				
Corrected Total	Self-Acceptance	155.683	75 5				
	Purpose of Life	379.701	75 5				
	Autonomy	95.461	75 5				
	Personal Growth	295.810	75 5				
	Positive Relations	185.679	75 5				
	Environment Mastery	113.780	75 5				
a. R Squared = .576 (Adjusted R Squared = .564)							
b. R Squared = .797 (Adjusted R Squared = .791)							
c. R Squared = .451 (Adjusted R Squared = .435)							
d. R Squared = .665 (Adjusted R Squared = .655)							
e. R Squared = .741 (Adjusted R Squared = .734)							
f. R Squared = .683 (Adjusted R Squared = .673)							
g. Computed using alpha = .05							

The results of separate ANOVA for each psychological wellbeing factors against each independent variable are presented in Table 10. There were significant gender differences were observed and both gender and age are good predictors of psychological well-being. Table 10 indicates in detail the independent factor with sub-scale and it is on dependent factor with ANOVA results – F value, p-value, and partial eta square values and statistically significant results are presented. Gender and Age are statistically significant and influencing the psychological well-being (Table 9 and Table 10)

Independent factor	Dependent factor	ANOVA results
Job Engagement		
Physical attachment	Self-Acceptance	F(20, 728)=22.655, p<0.005, η^2 =0.030
	Personal Growth	F(20, 728)=55.399, p<0.005, η^2 =0.070
	Positive Relations	F(20, 728)=5.494, p=0.01, η^2 =0.007
Dedication	Environment Mastery	F(20, 728)=15.278, p<0.005, η^2 =0.020
	Self-Acceptance	F(20, 728)=10.245, p<0.005, η^2 =0.014
	Environmental Mastery	F(20, 728)=32.325, p<0.005, η^2 =0.078
Emotional	Self-Acceptance	F(20, 728)=75.090, p<0.005, η^2 =0.093
	Autonomy	F(20, 728)=17.098, p<0.005, η^2 =0.023
	Personal Growth	F(20, 728)=38.862, p<0.005, η^2 =0.050
	Positive relations	F(20, 728)=4.144, p=0.04, η^2 =0.006
	Environmental mastery	F(20, 728)=76.984, p<0.005, η^2 =0.007
Vigor	Self-Acceptance	F(20, 728)=8.092, p=0.005, η^2 =0.011
	Purpose of Life	F(20, 728)=5.582, p=0.01, η^2 =0.008
	Autonomy	F(20, 728)=8.136, p=0.004, η^2 =0.011
	Personal Growth	F(20, 728)=26.636, p<0.005, η^2 =0.035
Absorption	Self-Acceptance	F(20, 728)=4.118, p=0.043, η^2 =0.006
	Autonomy	F(20, 728)=123.527, p<0.005, η^2 =0.144
	Environmental Mastery	F(20, 728)=241.104, p<0.005, η^2 =0.032
Cognitive	Self-Acceptance	F(20, 728)=21.165, p<0.005, η^2 =0.032
	Autonomy	F(20, 728)=6.563, p=0.01, η^2 =0.009
Remote working		
Technology	Self-Acceptance	F(20, 728)=8.058, p<0.005, η^2 =0.011
	Purpose of Life	F(20, 728)=39.380, p<0.005, η^2 =0.051
	Autonomy	F(20, 728)=25.043, p<0.005, η^2 =0.033
	Personal Growth	F(20, 728)=77.699, p<0.005, η^2 =0.096
	Positive relations	F(20, 728)=215.881, p<0.005, η^2 =0.228
	Environmental Mastery	F(20, 728)=6.942, p<0.005, η^2 =0.009
Team work	Purpose of Life	F(20, 728)=5.450, p<0.005, η^2 =0.007
	Personal growth	F(20, 728)=, p<0.005, η^2 =0.011
	Environmental Mastery	F(20, 728)=66.033, p<0.005, η^2 =0.083
Organizational	Autonomy	F(20, 728)=29.620, p<0.005, η^2 =0.039

climate		
	Personal Growth	F(20, 728)=46.328, p<0.005, η^2 =0.059
	Positive relations	F(20, 728)=48.047, p<0.005, η^2 =0.062
	Environmental Mastery	F(20, 728)=101.271, p<0.005, η^2 =0.121
Workplace isolation	Self-Acceptance	F(20, 728)=78.004, p<0.005, η^2 =0.096
	Purpose of Life	F(20, 728)=6.899, p<0.005, η^2 =0.009
	Environmental Mastery	F(20, 728)=86.931, p<0.005, η^2 =0.106
Job-engagement		
Work Engagement	Autonomy	F(20, 728)=12.592, p<0.005, η^2 =0.017
	Personal growth	F(20, 728)=26.277, p<0.005, η^2 =0.035
Working conditions	Self-Acceptance	F(20, 728)=24.551, p<0.005, η^2 =0.032
	Purpose of Life	F(20, 728)=93.688, p<0.005, η^2 =0.113
	Personal growth	F(20, 728)=26.017, p<0.005, η^2 =0.034
	Positive relations	F(20, 728)=31.250, p<0.005, η^2 =0.041
	Environmental Mastery	F(20, 728)=25.848, p<0.005, η^2 =0.034
Organizational culture	Purpose of Life	F(20, 728)=18.945, p<0.005, η^2 =0.025
	Personal growth	F(20, 728)=10.779, p<0.005, η^2 =0.014
	Positive relations	F(20, 728)=121.820, p<0.005, η^2 =0.143
	Environment Mastery	F(20, 728)=4.549, p=0.03, η^2 =0.006
Job Clarity	Purpose of Life	F(20, 728)=292.265, p<0.005, η^2 =0.286
	Personal Growth	F(20, 728)=21.858, p<0.005, η^2 =0.029
	Positive Relations	F(20, 728)=72.334, p<0.005, η^2 =0.090
Career Development	Self-Acceptance	F(20, 728)=23.038, p<0.005, η^2 =0.030
	Autonomy	F(20, 728)=9.090, p<0.005, η^2 =0.012
	Personal Growth	F(20, 728)=4.114, p<0.005, η^2 =0.006
	Positive Relations	F(20, 728)=11.025, p<0.005, η^2 =0.015
	Environment Mastery	F(20, 728)=18.219, p<0.005, η^2 =0.024
Gender	Self-Acceptance	F(20, 728)=116.521, p<0.005, η^2 =0.137
	Purpose of Life	F(20, 728)=80.745, p<0.005, η^2 =0.099
	Autonomy	F(20, 728)=33.490, p<0.005, η^2 =0.044
	Positive Relations	F(20, 728)=26.928, p<0.005, η^2 =0.035
	Environment Mastery	F(20, 728)=50.713, p<0.005, η^2 =0.065
Age	Self-Acceptance	F(20, 728)=51.907, p<0.005, η^2 =0.175
	Purpose of Life	F(20, 728)=15.209, p<0.005, η^2 =0.059
	Autonomy	F(20, 728)=14.186, p<0.005, η^2 =0.055
	Personal Growth	F(20, 728)=28.711, p<0.005, η^2 =0.105
	Positive Relations	F(20, 728)=47.789, p<0.005, η^2 =0.164
	Environment Mastery	F(20, 728)=54.279, p<0.005, η^2 =0.182

^aNote: Only significant results are presented from General Linear Model: Tests of Between-Subjects Effects

Therefore, we accept the null hypothesis H_{01} : Job engagement, remote working, and job-satisfaction factors significantly influence the psychological well-being of an employee during Covid-19 Pandemic and accept the hypothesis H_{02} : There are significant gender and age differences on factors effecting the psychological well-being.

5. DISCUSSION

The main idea of the paper is that the readers to understand how an appropriate questionnaire can be developed to carry out the survey research using the independent factor measurement scales – job engagement, remote working, job-satisfaction to predict the psychological well-being of an employee. The authors have chosen psychological well-being as a dependent variable because now this factor has become an important factor in employee productivity, turnover, and output. Though, there is no research available using GLM Multivariate model our results in line with the similar studies carried out by Gu et. al., (2019) and psychosomatic wellbeing among Chinese nurses; Adam Steptoe et. al., (2015) psychological wellbeing and aging; and Brim et. al., (2019). The reason for using the General Linear Model is to measure more than one dependent variable.

6. LIMITATIONS

The survey data collected during in the Hyderabad Metro of India from various employees working in Information Technology industry through providing a link to the research instrument – survey questionnaire, hard copies if required and the required statistical analysis carried out and the results are presented. After collecting the data, the data was tested for normality, and the assumptions for all the statistical tests were carried out and after meeting the assumptions of the statistical tests the required statistical methods, General Linear Model was run using the SPSS ver. 27. The authors believe that Psychological well-being, Remote Working, Employee Engagement and Job Satisfaction is the important factor irrespective of the sector employee and the reliability tests reveal the internal consistency and reliability of the survey instrument, so the results can be generalized following the developed scales and analysis.

7. CONCLUSIONS

The authors suggest that researchers can carry out similar type studies using multivariate statistical methods to predict more than one independent variable in BPO, e-commerce, and in the particular health sector as this sector is full in demand now. Bigger samples will provide more accurate results with gender parity. The researchers can carry out studies on occupational stress, coping, and study the effect on psychological well-being. The organizations should strive to identify the factors that affect an employee's psychological well-being and develop a comprehensive plan to address the issue to enhance productivity and improve the health of the organization.

Conflicts of interest

The authors confirm that there is no conflict of interest to declare for this publication.

Acknowledgement

The authors sincerely thank the respondents for filling out the study's research instrument.

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Appendix 1- Questionnaires

(Rating: Strongly Agree =5; Agree=4; Neutral = 3; Disagree=2; Strongly Disagree =1)		
Sl No	Statement	Sub-scale
Remote working		
1	I can communicate through various modes and can prioritize the communication modes like email, whatsapp, chat, skype based on the importance	Technology
2	My role is essential for achieving the objectives of the Team/organisation through remote working	Team work
3	I am part of Essential Delivery Service Team and my role is demanding through remote operations	Team work
4	I have enough knowledge/technical know-how to carry out my work remotely without or with minimal supervision	Technology
5	All the required resources (laptop/desktop/internet) etc for remote working are provided to the employees	Technology
6	My organisation provides all the software/technology needed for remote working (like team viewer, MS team etc)	Technology
7	There is a scope for digital/virtual meetings of staff with peer (Team work 5)	Team work
8	There are opportunities and challenges while working remotely when compared to?	Organizational climate
9	Organization will pay the additional operational cost like electricity, internet charges are additional burden to me while remote working	Organizational climate
10	Do you have any past experience working remotely without interacting with colleagues?	workplace isolation
11	Is your meeting with your peer/staff are remote-friendly (Team work 3)	Team work
12	The technology provided able you connected to others while remote working	Technology
13	You fee workplace isolation? (workplace isolation 2)	Workplace isolation
14	Do you believe the decision-making process works effectively while remote working?	Organizational climate
15	Are you able to connect your colleagues through remote working will have the same fun and chat ?	Workplace isolation
16	Do you feel that you are alienated from the workplace and teamwork during remote working	Workplace isolation
17	My organization is very kind enough not to cut/reduce the salaries during the remote working because of the present situation	Organizational climate
18	My role is perceived as important by the organization even during remote working	Organizational climate

(Rating: Strongly Agree =5; Agree=4; Neutral = 3; Disagree=2; Strongly Disagree =1)		
Sl No	Statement	Sub-scale
Jo Satisfaction		
1	I am fully engaged while working from home	Work Enragement
2	My job satisfaction levels are same even working at home	Work engagement
3	Things have changed due to this pandemic and I do not like my job now	Working condition
4	Working at my organization has a great deal of personal meaning to me	Engagement
5	It is pleasure to be associated with my organization	Working condition
6	Remote working is a challenge but my organization management made it working easy (working condition)	
7	Do you enjoy our company's culture?	Organization culture
8	My job assignments and reporting are clearly defined (Job clarity
9	My suggestions are valued as a team member	Organization culture
10	My organization is open for job rotation of an employee	Organization culture
11	I have no role conflicts as employee, father/wife/mother with my organization	Work-life balance
12	Does our company offer adequate opportunities for promotions and career development	Career development
13	I have equal opportunity as other in pay hikes and career growth	Career development
14	My organization have clear policies for employees to growth within the organization	Career development
15	Do you feel as though your job responsibilities are clearly defined?	Job clarity
16	There is no role ambiguity or role conflicts in my job(Job clarity)	Job clarity
17	I have flexible working hours	Work-life balance
18	I can easily address the family issues while working at home adjusting my work schedules	Work-life balance

Answer Format: 1 = strongly agree; 2 = somewhat agree; 3 = a little agree; 4 = neither agree or disagree; 5 = a little disagree; 6 = somewhat disagree; 7 = strongly disagree.

Sl No	Statement	Sub-scale
Psychological well-being		
1	I feel irritated at the present crisis choose myself, what I do after work	Environmental mastery
2	I often like to engage in new activities, which I cannot do now because of the present situation	Personal growth
3	I often think about, what I want to be when I grow up	Purpose of Life
4	I often satisfied with what I have even though at present crisis	Purpose of life
5	I never ask any one for help to overcome the anxieties during this crisis	Autonomy
6	I often do fun things with my others, which are missing now due to remote work	Positive relations
7	I have confidence in my actions on fruitful outcome during <i>the crisis even</i> if they are contrary to the general consensus	Environmental mastery
8	I tend to worry about what other people think of me as I am unable to meet them during this time	Positive relations
9	I often feel overwhelmed by my responsibilities during the changed situations	Self-Acceptance
10	I am quite good at managing the many responsibilities of my daily life even though during Covid crisis	Autonomy
11	I have difficulty arranging my life get me down the way I am satisfying because of Covid-19 pandemic	Environmental mastery
12	I have enough knowledge to judge myself based on my own wish, but not by the values what others think autonomy	Autonomy
13	I have the sense that I have developed a lot as a person over time because of the crisis	Self-Acceptance
14	People would describe me as a giving person, willing to share my time with others.	Purpose of life
15	The past had its ups and downs, but in general, I wouldn't want to change it even though during this crisis	Self-Acceptance
16	I am very interested to learn new things in pursuit of professional perfection even this crisis time	Personal growth
17	I am ready accept new challenges for the development of the organisation during this pandemic	Personal growth
18	I am always positive in helping and sharing time with others for solving their problems	Positive relations

(Rating: Strongly Agree =5; Agree=4; Neutral = 3; Disagree=2; Strongly Disagree =1)

Sl No	Statement	Sub-scale
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Employee Engagement		
1	I feel engaged in performing my duties	Physical
2	I was actively involved in designing job activities	Physical
3	I feel product to be part of my organization and work (dedication)	Dedication
4	My organization provides ample scope of learning and development	Emotionalo
5	I have always recognized for my good work	Emotional
6	I often get rewards and appreciation for my good work	Emotional
7	I am energetic while working	Vigor
8	I believe that my work is for some meaningful purpose	Dedication
9	I fully enthusiastic about my job	Dedication
10	I have always inspired by work and organization	Dedication
11	I don't know the time passes very quickly while working	Absorption
12	I have always attached with job activities	Absorption
13	I am very energetic to go the office	Vigor
14	I am always mentally strong while working at the office	Vigor
15	I am always positive and excited about my work	Emotional
16	I work hard and overtime to complete my job	Physical
17	I am always focussed on my job	Cognitive
18	I always deeply immersed in my job while working	Cognitive
19	I devote appropriate time and pay sincere attention to the work	Cognitive
20	Concentration is the high-order in my job	Cognitive