

## Work-From-Home: Impact Self-Leadership And Employee Engagement On Employee Well-Being In IT Industry

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### Abstract

*This research work examines the role of self-leadership and employee engagement on job satisfaction, job stress, and general well-being in the perspective of work-from-home (WFH). For this study, quantitative research design was implemented and primary data was procured from respondents with sample size 410 through structured closed-ended questionnaires. The results from data analysis had revealed significant associations between self-leadership, employee engagement, and job outcomes, with both constructs showing affirmative influence on job satisfaction and general wellbeing, and negative effects on job stress. The findings from the study illustrate importance of individual-level factors, such as self-leadership and employee engagement, in shaping employees' experiences and outcomes in work-from-home situations. The employee wellbeing according to place of work has been conducted. The results are prominent for managers and employers in information technology (IT) sector. The directions for future research have been discussed in backdrop of work-from-home (WFH) environment. Human resource managers can use the insights obtained from this work while formulating strategies for effective human resource practices in future.*

**Keywords:** *Work-from-home, remote work, employee well-being, employee engagement, self-leadership.*

### Introduction

Work-from-home (WFH) has become more common past 4 years in service sector and precisely in IT industry. Prior to COVID-19 WFH has been there but not mandatory for either employer or employees. The advent of COVID-19 has made compulsion for organizations to implement WFH culture. Now, employees across the industries have got experience on WFH culture. Such new work setup has spillover effects on normal life of employees. This study particularly evaluates the role of employee engagement and self-leadership on employee well-being in post COVID-19 era. The proportion of WFH has amplified from 17% to 44% during the pandemic COVID-19 (Brueckner & Sayantani, 2023). Work-from-home is common phenomenon in developed nations and it should be adopted in developing nation by avoiding sociocultural barriers (Himawan et al., 2022).

In contemporary business world, driven by advancements in digital technology, the backdrop of employment has undergone intense transformation, with work-from-home (WFH) emerging as an essential paradigm shift. The availability of abundance digital tools, such as instant messaging platforms and video conferencing platforms, are basis for transition towards

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a work-from-home (WFH) model thus redefining the traditional notions of workplace dynamics. Amidst this evolution, the implication of employee well-being looms large, as organizations struggle with the dual imperatives of improving employee productivity and creating supportive work environment. While some researchers and experts in the area of human resources advocate that WFH offers a seamless transition from traditional office modes, others highlight the nuanced challenges inherent in this shift, predominantly for employees navigating the complexities of remote work for the first time. In this backdrop, the association among self-leadership, work engagement, and job stress emerges as a focal point, determining the trajectory of employee well-being in the WFH landscape.

Surrounded by this dynamic context, gender dynamics play an essential role, influencing perceptions towards WFH and the distribution of care giving responsibilities. Researchers highlight the unique challenges faced by mothers in balancing work commitments with childcare responsibilities laying emphasis on the need for organizations to accept inclusive policies that accommodate diverse familial structures. Moreover, the spatial implications of WFH extend beyond the confines of organizational dynamics thereby reshaping urban landscapes and corporate real estate strategies. As organizations struggle with diverse factors influencing WFH, the narrative of remote work continues to progress thus shaped by the collective experiences, challenges, and aspirations of employees and organizations identical. Through a wide-ranging exploration of the literature, this research highlights on the intricacies of WFH and its implications for employee well-being in this digital age.

### **Research Objectives**

- To assess impact of employee engagement on employee well being in work-from-home environment.
- To evaluate the impact of self-leadership on employee well-being in work-from-home environment.
- To know the employee well-being with regard to place of work.
- To provide suggestions for practicing human resource managers and leaders from the viewpoint of work-from-home (WFH).

### **Need and Scope of Study**

This research work addresses the pressing need to comprehensively understand the implications of work-from-home (WFH) arrangements on employee well-being from viewpoint of modern digital landscape. Organizational factors and individual factors have influence on the employee performance and employee well-being. This study is confined to individual level factors such as employee engagement, self-leadership and employee well-being. The results are appropriate for IT sector because the respondents only that sector have been considered while collecting primary data. The respondents are from Hyderabad, Telangana which is substantial proportion of IT market in India with second place in India. The employees in IT are being asked to come back to regular office and there is need to understand the consequences with WFH environment.

### **Literature Review**

The digital technology has increased burden on employees during work-from-home with instant messaging systems and video conferences when compared to working from regular office (Schulz et al., 2023). According to Lundqvist et al., (2022) the employee well-being is almost same between traditional office mode and work-from-home. Supportive leadership is prominent for accomplishment of employee well-being. Employee having prior WFH experience before COVID-19 have found it WFH is much easier and employee new to it have faced difficulty in adopting technology for virtual meetings (Kong et al., 2022). Employers

have mixed response towards acceptance of WFH in post COVID-19 period. Work-life balance (WLB) and work stress have influenced the psychological well-being of employees in WFH environment (Kismono et al., 2023). The gender performs crucial role in developing perception towards work-from-home (WFH). Employees with WFH mode are more time for taking care of children which has increased responsive parenting (Bernhardt et al., 2023).

The absence of informal communication among employees hinders creativity and there is need for improvement in digital technology in WFH environment (Tonnessen & Flåten, 2023). According to Tunk and Kumar (2023) WFH is not positively influenced by employee perception towards job performance, supervisor role and social interaction. Organizations which have implemented WFH culture prior to COVID-19 have more productivity in relative to organizations which implemented only after COVID-19 (Morikawa, 2022). Job satisfaction of employees is considerably related to work from home (WFH), work life balance and job stress (Irawanto et al., 2021). Computers have significantly affected the practice of geography in relative to any other technological advancement in the recent decades. There is rise in home-office infrastructure in the last few years and it is consequence of WFH mode (Mukherjee & Narang, 2023). WFM moves the core jobs to centre of the city and residents move to outskirts of the city where average real estate price declines. More importantly traffic congestion declines and reduces air pollution (Delventhal et al., 2022). Corporate real estate strategies are connected with WFH implementation because organizations can decide the place of work for employees according to cost of living (Höcker et al., 2022).

Work at home has affirmative impact on employees only up to certain limit and thereby it gives negative impact if there are excessive amounts of meaningfulness (Magrizos et al., 2023). Organizations are formally implementing WFH mode and it provides flexibility for employees. Smite et al., (2023) has described WFH as exclusive perk which creates psychological contract between employee and employers. Even though social interaction is crucial for improving work effectiveness but during pandemic there is no considerable impact of it on work effectiveness across the genders (Deepa et al., 2023). Intercity effects are not significant when performance of remote workers and non-remote workers (Brueckner & Sayantani, 2023).

Gender has significant relationship with likelihood towards WFH. Kong et al., (2023) found that motherhood has negative impact on WFH in post-pandemic era because it mixes work with time spent with children. Variety of elements such as nature of work, industry traits, home-office set up and employer intention will affect employee productivity and employee performance in WFH mode (Anakpo et al., 2023). Work-from-home in unorganized sector have shown gendered gap with regard to productivity and expansion. Female with unorganized firms at householders could not expand and confined to single location due to social norms (Bose, 2023). Employee productivity is negatively affected in WFH environment and gender moderates the relationship (Farooq & Sultana, 2022). Organization adaptation theory is prominent to study the organizations behavior in WFH environment. WFH has no substantial influence on mental health of women which is good indicator for organizations to implement permanently (Prabowo et al., 2022). WFH environment has increased burden on women due to fewer resources in relative to men (Chauhan, 2022).

WFH productivity has positive relationship with work and life balance (WLB) and job satisfaction where WLB mediates connection among WFH productivity and job satisfaction (Kowalski et al., 2022). Organizational factors for instance autonomy, independence and empowerment positively influences productivity in WFH situations (Patanjali & Bhatta, 2022). Organizational identification decreases and social isolation enhances which leads to counterproductive organizations with WFH situation (Kossen & van der Berg, 2022). It means WFH has positive and negative consequences on organizational productivity at the broader level. The adaptive process is more important so that WFH makes positive impact on time spent with family members (Wu et al., 2022). Experience employees are able to balance work and

life and spend quality time with family members. Physical isolation dampens teamwork and psychological isolation dampens sense of belongingness in WFH situation (Wut et al., 2022). Employees are thinking to relocate to access the WFH facility in post-COVID-19 period with an aim to decrease commuting time (Stefaniec et al., 2022). Schaufeli et al., (2006) has developed work engagement scale which is adopted in this study while measuring employee engagement.

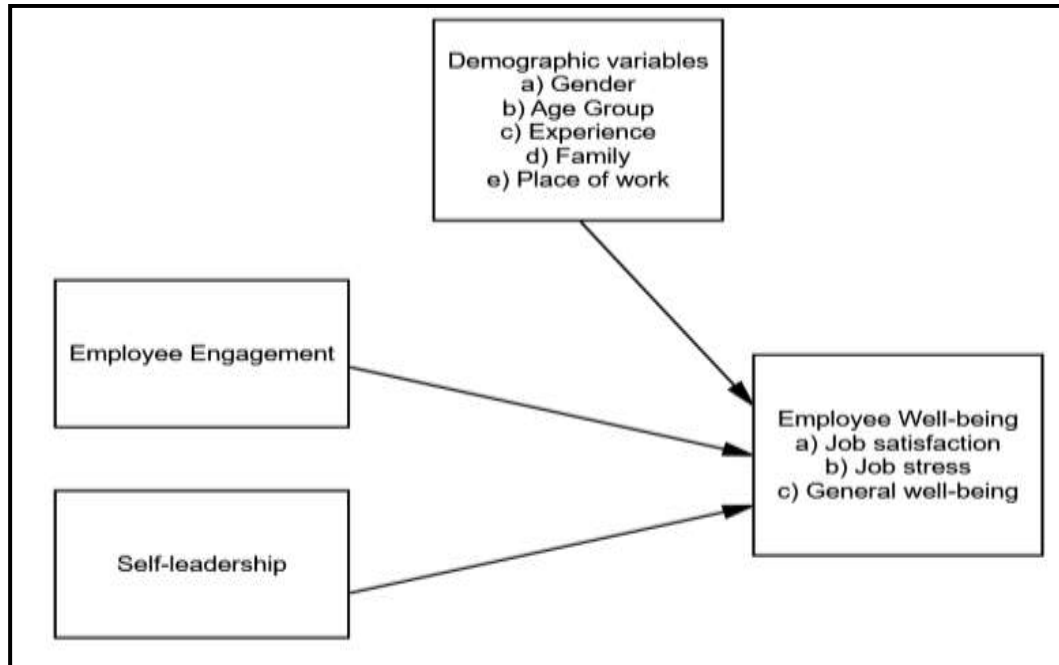
### **Research Methodology**

The research methodology employed in current study depicts quantitative research design which leverage both primary data sources and secondary data sources to broadly explore the effect of workfromhome (WFH) arrangements on employee well-being. The primary data procured with structured questionnaire distributed employees in IT with WFH experience (n = 410). The questionnaire comprises 5 demographic variables and 5 constructs. The items under construct have been gauged with five point scale to estimate respondents' perceptions regarding self-leadership, employee engagement, job satisfaction, job stress, and general well-being. The questionnaire items were adapted from established scales and validated sources in the literature, ensuring the consistency and strength of measurement instrument.

Self-Leadership (SL) construct assesses an individual's ability to set goals, manage self, and maintain motivation. It is measured using three items (Galanti et al., 2021; Houghton & Neck, 2002) on five pointscale with one end strongly disagree (1) and other end strongly agree (5). Employee engagement (EE) construct captures respondent's emotional and cognitive dedication towards work. EE is measured using three items (Schaufeli et al., 2006) on '5-point Likert type scale' with one end strongly disagree (1) and other end strongly agree (5). Job Satisfaction (JS) construct assesses an individual's contentment with various aspects of their job, including salary and prospects. JS is measured using two items (Lundqvist et al., 2022) on five-point Likert-type scale with one end very dissatisfied (1) and other end towards very satisfied (5). Job Stress (ST): This construct measures the level of stress experienced by an individual with work demands. ST is measured using three items (Burr et al., 2019; Lundqvist et al., 2022) on 5-point Likert scale ranging from never (1) to always (5). The items in the instrument inquire about frequency of feeling tense, irritable, and having difficulty making decisions in the past four weeks. General Well-being (WB) construct assesses an individual's overall psychological and emotional state. WB is estimated with three items (Lundqvist et al., 2022; Topp et al., 2015) on five point Likert-type measurement scale with one end never (1) and other end always (5). The items inquire about the frequency of feeling cheerful, calm, and active in the past four weeks.

Data analysis was performed with SPSS (Statistical Package for the Social Sciences) and SPSS AMOS (Analysis of Moment Structures) software. During data analysis process the beginning step descriptive statistics was calculated to portray the demographic profile of respondents and construct variables of the sample. Subsequently, a measurement model was developed using SPSS AMOS to assess the construct validity and reliability through confirmatory factor analysis. Hierarchical multiple regression analysis has been employed to study the relationships between the demographic variables and constructs, elucidating the predictors of employee well-being in the WFH context. Through these methodological approaches, this study endeavors to provide rigorous empirical analysis to study into the intricate dynamics of WFH and its implications for employee well-being in contemporary organizational settings. The conceptual model of the study has been portrayed below.

### **Figure 1: Conceptual Model**



(Source: Created by researcher)

### Data Analysis

SPSS and SPSS AMOS have been used to conduct data analysis. Demographic profile of respondents, descriptive statistics, confirmatory factor analysis, goodness of fit, hierarchical multiple regression, independent sample t-Test and frequency analysis has been described.

### Demographic Profile

Demographic profile of respondents in this study depicts diverse sample composition, with a majority identifying as male (71.2%) and the remaining as female (28.8%). Based on age group variable, the largest proportion falls within the 30 to 40 years age group (59.8%), followed by those above 40 years (25.4%), and respondents below 30 years (14.9%). For total work experience variable, a significant portion reported having 9 to 15 years of experience (55.1%), while 30.0% possessed over 15 years, and 14.9% had up to 8 years. With regard to family size, respondents had fewer than four family members (85.1%), with 10.0% staying alone and 4.9% having more than four members. For place of work variable the majority of respondents primarily worked from home (68.3%), compared to those mainly in a regular office setting (31.7%). Such diverse profile of respondents presents robust foundation for investigating the relationships between demographic variables and constructs associated self-leadership (SL), employee engagement (EE), job satisfaction (JS), job stress (ST), and general well-being (WB) in perspective of work-from-home (WFH) situation.

### Descriptive Statistics

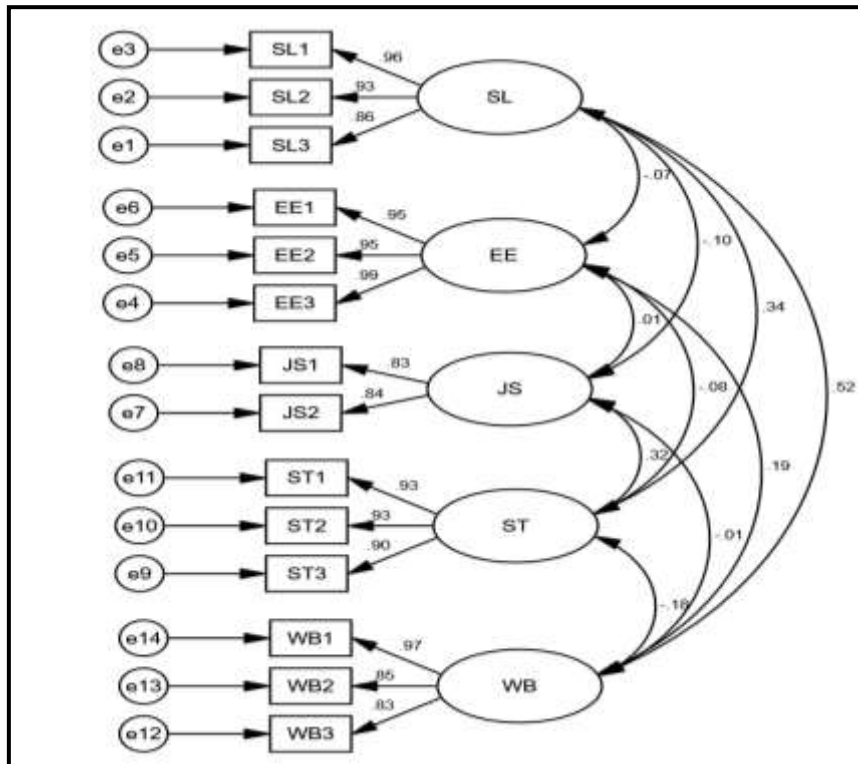
Descriptive statistics illustrates that on an average the respondents reported moderately high levels of self-leadership ( $M = 4.174$ ,  $SD = 0.505$ ) and employee engagement ( $M = 4.329$ ,  $SD = 0.569$ ) which depicts strong sense of personal initiative and commitment to their work tasks. However, employee general well-being scores ( $M = 3.925$ ,  $SD = 0.543$ ) were slightly lower illustrating potential areas for improvement in terms of overall mood and vitality among the respondents. Job satisfaction (JS) ratings were notably high ( $M = 4.795$ ,  $SD = 0.401$ ) posits generally positive outlook regarding work prospects and salary packages. Nonetheless, job

stress (ST) levels were moderate ( $M = 3.063$ ,  $SD = 0.504$ ), highlighting the presence of tension, irritability, and decision-making challenges among respondents in the past four weeks.

**Confirmatory Factor Analysis (CFA)**

SPSS AMOS was utilized to generate initial model referred as measurement model for this study. Confirmatory factor analysis (CFA) has been described to portray the model significance. The reliability, consistency, robustness and strength of the measurement scale can be assessed with CFA. The model fit indices from the AMOS output illustrates overall adequate fit of the structural equation model. CMIN/df ratio of 3.324 depicts good model fit, falling within the recommended range of below 5 (Byrne, 2016). Moreover, Goodness-of-Fit Index (GFI) of 0.932 suggests a satisfactory score of the model in this study, with values above 0.90 typically considered indicative of good fit (Anderson & Gerbing, 1988). The model fit statistic Root Mean Square Residual (RMR) value of 0.007 indicates a low level of residual error which supports the adequacy of the model fit (Hu & Bentler, 1998). Next, Tucker-Lewis Index (TLI) along with other statistical model fit index Comparative Fit Index (CFI) values have been observed as 0.963 and 0.972, respectively present a high level of fit relative to the baseline model (Bentler, 1990). The Standardized Root Mean Square Residual (SRMR) value of 0.024 and the Root Mean Square Error of Approximation (RMSEA) value of 0.075 depict reasonable fit of model for the dataset. Overall, model indices collectively imply that measurement model (figure below) demonstrates a satisfactory fit to the observed data, supporting the soundness of the model for further analysis and interpretation.

**Figure 2: Measurement Model**



Source: Output from SPSS

**Factor Loadings**

The measurement model demonstrates strong factor loadings on constructs posit robust associationsamid observed indicators with their respective latent variables (above figure). Self-leadership (SL) indicators (SL1, SL2, SL3) demonstrateadequate factor estimates ranging from 0.857 to 0.959 depicting that items in the model effectively capture the underlying construct of self-leadership. Employee engagement (EE) indicators (EE1, EE2, EE3) show substantial factor loadings exceeding 0.949 shows reliable measurement of employee engagement in the measurement model. Job satisfaction indicators (JS1, JS2) reveal strong factor loadings of 0.830 to 0.837 which portraysconsistent assessment of job satisfaction among respondents. Job stress (ST) items (ST1, ST2, ST3) have factor loadings ranging from 0.900 to 0.929 exhibits robust measurement of job stress. Finally, employee well-being indicators (WB1, WB2,WB3) demonstrate substantial factor loadings exceeding 0.830 illustrating that these items effectively capture the latent construct of employee well-being. Overall, the measurement model demonstrates adequate validity and reliability, provide solid foundation for subsequent data analysis and interpretation as per the benchmark values(Hair et al., 2019).

**Table 1: Reliability and Validity**

|                            | SL    | EE    | JS    | ST    | WB    |
|----------------------------|-------|-------|-------|-------|-------|
| Mean                       | 4.174 | 4.329 | 4.795 | 3.063 | 3.925 |
| SD                         | 0.505 | 0.569 | 0.401 | 0.504 | 0.543 |
| Composite Reliability (CR) | 0.939 | 0.975 | 0.819 | 0.942 | 0.915 |
| AVE                        | 0.837 | 0.929 | 0.694 | 0.844 | 0.784 |
| Alpha                      | 0.938 | 0.975 | 0.819 | 0.942 | 0.913 |

Notes: AVE = Average-variance extracted, SD = Standard deviation, SL = Self-leadership, EE = Employee engagement, JS = Job satisfaction, ST = Job Stress, WB = General well-being, CR = Composite reliability.

Source: Calculated using MS-Excel, Mean and SD are from SPSS outputs.

#### Convergent Validity

Composite reliability (CR) values ranging from 0.819 to 0.975 (above table) exceed the suggested threshold of 0.700 illustratesadequate internal consistency and reliability of the measurement model(Hair et al., 2019; Hu & Bentler, 1998). Average variance extracted (AVE) values range from 0.694 to 0.929 exceed the acceptable threshold of 0.500 which posits that latent constructs explain a substantial proportion of the variance of respective indicators. Cronbach's alpha coefficients, which quantify the internal consistency of the constructsranging from 0.819 to 0.975 ensures reliability of the measurement model when compared with benchmark value(Hair et al., 2019; Nunnally & Berstein, 1994). These resultsare presented in above table and they signify that the latent constructs of self-leadership (SL), employee engagement (EE), job satisfaction (JS), job stress (ST), and employee well-being (WB) demonstrate strong convergent validity, providing confidence regarding accuracy and consistency of the measurement instruments utilized.

**Table 2: Fronell and Larcker Criterion – Discriminant Validity**

|    | SL           | EE           | JS | ST | WB |
|----|--------------|--------------|----|----|----|
| SL | <b>0.915</b> |              |    |    |    |
| EE | -0.073       | <b>0.964</b> |    |    |    |

|    |        |        |              |              |              |
|----|--------|--------|--------------|--------------|--------------|
| JS | -0.097 | 0.013  | <b>0.833</b> |              |              |
| ST | 0.342  | -0.082 | 0.317        | <b>0.919</b> |              |
| WB | 0.525  | 0.191  | -0.014       | -0.177       | <b>0.885</b> |

Notes: Square root of AVE is bolded and shown diagonally, AVE = Average variance extracted, SL = Self-leadership, EE = Employee engagement, JS = Job satisfaction, ST = Job Stress, WB = General well-being.

Source: Ms-excel and SPSS outputs

#### Discriminant Validity

Discriminant validity determines how the constructs are different from each other. Another important element of CFA which is discriminant validity was calculated on the basis of Fornell and Larcker method which is standard criterion and results are shown in above table. The diagonal elements are square roots of the average variance extracted (AVE) values which are bolded shown in above table. When square root of AVE is above corresponding correlations connecting constructs demonstrates discriminant validity. It is observed that square roots of AVE for each construct (SL, EE, JS, ST, WB) are higher than the correlations between them assures that each and every construct is strongly correlated with the respective indicators than with remaining constructs in the model which meets standards of discriminant validity (Fornell, C., & Larcker, 1981). The latent constructs of self-leadership (SL), employee engagement (EE), job satisfaction (JS), job stress (ST), and employee well-being (WB) are distinct and adequately differentiated from one another within the measurement model.

#### Hypothesis Testing

The hypothesis of this study are developed by following previous research works (Galanti et al., 2021; Lundqvist et al., 2022). Hypotheses have been carefully framed align with the objectives of this study. Hierarchical multiple regression (HMR), independent samples t-Test are core statistical tools implemented using SPSS AMOS and SPSS software. Hierarchical multiple regression compared the change in model significance when variable are added at each step (Aldrich & Cunningham, 2016; Hair et al., 2019). The predictor variables in hierarchical model are gender, age group, experience, family and place of work and dependent variable is employee well-being with three dimensions (job satisfaction, job stress and general well-being).

**Table 3: Hierarchical Multiple Regression**

| Model       | Dependent Variables   |         |                 |         |                         |         |
|-------------|-----------------------|---------|-----------------|---------|-------------------------|---------|
|             | Job Satisfaction (JS) |         | Job Stress (ST) |         | General Well-being (WB) |         |
|             | Beta                  | p-value | Beta            | p-value | Beta                    | p-value |
|             |                       |         |                 | 0.00    |                         |         |
| Gender      | 0.345                 | 0.000   | 0.408           | 0       | 0.066                   | 0.085   |
| 1 Age Group | -0.873                | 0.000   | -1.336          | 0       | 1.040                   | 0.000   |
| Experience  | 0.488                 | 0.000   | 1.427           | 0       | -1.356                  | 0.000   |
| Family      | 0.038                 | 0.442   | 0.085           | 1       | 0.478                   | 0.000   |



|                          |        |       |        |      |        |       |
|--------------------------|--------|-------|--------|------|--------|-------|
|                          |        |       |        | 0.78 |        |       |
| Place of work            | -0.212 | 0.000 | -0.011 | 6    | 0.367  | 0.000 |
| R Square                 | 0.296  |       | 0.369  |      | 0.514  |       |
| R Square Change          | 0.296* |       | 0.369* |      | 0.514* |       |
|                          |        |       |        | 0.00 |        |       |
| Gender                   | 0.335  | 0.000 | 0.397  | 0    | 0.083  | 0.029 |
|                          |        |       |        | 0.00 |        |       |
| Age Group                | -1.020 | 0.000 | -1.510 | 0    | 1.290  | 0.000 |
|                          |        |       |        | 0.00 |        |       |
| Experience               | 0.649  | 0.000 | 1.618  | 0    | -1.629 | 0.000 |
|                          |        |       |        | 0.09 |        |       |
| 2 Family                 | 0.033  | 0.505 | 0.079  | 2    | 0.486  | 0.000 |
|                          |        |       |        | 0.40 |        |       |
| Place of work            | -0.232 | 0.000 | -0.035 | 5    | 0.401  | 0.000 |
| Employee Engagement      | 0.098  | 0.053 | 0.115  | 6    | -0.165 | 0.000 |
| R Square                 | 0.302  |       | 0.378  |      | 0.533  |       |
| R Square Change          | 0.007  |       | 0.009* |      | 0.019* |       |
|                          |        |       |        | 0.00 |        |       |
| Gender                   | 0.335  | 0.000 | 0.398  | 0    | 0.084  | 0.025 |
|                          |        |       |        | 0.00 |        |       |
| Age Group                | -0.970 | 0.000 | -1.769 | 0    | 1.184  | 0.000 |
|                          |        |       |        | 0.00 |        |       |
| Experience               | 0.580  | 0.000 | 1.972  | 0    | -1.484 | 0.000 |
|                          |        |       |        | 0.00 |        |       |
| Family                   | 0.084  | 0.154 | -0.184 | 0    | 0.379  | 0.000 |
|                          |        |       |        | 0.01 |        |       |
| 3 Place of work          | -0.220 | 0.000 | -0.099 | 0    | 0.375  | 0.000 |
| Employee Engagement (EE) | 0.076  | 0.148 | 0.230  | 0    | -0.119 | 0.005 |
| Self-leadership (SL)     | -0.084 | 0.108 | 0.433  | 0    | 0.176  | 0.000 |
| R Square                 | 0.307  |       | 0.498  |      | 0.552  |       |
| R Square Change          | 0.004  |       | 0.119* |      | 0.020* |       |

Notes: \*Significant at  $p < 0.001$

H1: The self-leadership and employee engagement has significant influence on job satisfaction.

Hierarchical multiple regression analysis has been conducted to study relationship between self-leadership, employee engagement, and employee job satisfaction. There are three model in each step where first model, which includes demographic variables and contextual factors, gender, age group, experience, and place of work collectively explain 29.6% of the variance in job satisfaction (R Square = 0.296) and results are presented in above table. Among

these predictors, gender, age group, experience, and place of work demonstrate statistically significant associations with job satisfaction, as indicated by their respective beta coefficients and p-values. In second model, employee engagement is introduced as an additional predictor. Although the inclusion of employee engagement in second model depicts slight increase in the variance explained (R Square Change = 0.007), its individual effect on job satisfaction is not statistically significant (beta = 0.098, p = 0.053). In third model, where self-leadership is included alongside employee engagement, the overall variance explained in job satisfaction increases marginally (R Square Change = 0.004). However, neither employee engagement (beta = 0.076, p = 0.148) nor self-leadership (beta = -0.084, p = 0.108) exhibit statistically significant relationships with job satisfaction. Thus, based on the results from hierarchical multiple regression analysis, there is no significant evidence to support the hypothesis that self-leadership and employee engagement have direct and noteworthy influence on job satisfaction.

H2: The self-leadership and employee engagement has significant influence on job stress.

The hierarchical multiple regression analysis has been implemented to evaluate the relationship among self-leadership, employee engagement, and job stress. In first model demographic and contextual variables namely gender, age group, experience, family size, and place of work together account for 36.9% of the variance in job stress (R Square = 0.369) as per above table. Gender, age group and experience demonstrate statistically significant associations with job stress based on their respective beta coefficients and p-values. In second model, employee engagement is introduced as an additional predictor. Employee engagement inclusion in second model results in slight increase in the variance explained (R Square Change = 0.009) and exhibits a statistically significant relationship with job stress (beta = 0.115, p = 0.016). In third final model, self-leadership is introduced along with employee engagement which caused significant increase in the overall variance explained in job stress (R Square Change = 0.119). Both employee engagement (beta = 0.230, p < 0.001) and self-leadership (0.433, p < 0.001) demonstrate statistically considerable relationships with job stress. Hence H2 is supported which means that both self-leadership and employee engagement have considerable influence on job stress.

H3: The self-leadership and employee engagement has significant influence on well-being.

The hierarchical multiple regression analysis has been conducted to study the association among self-leadership, employee engagement, and general well-being. In first model demographic and contextual factors namely gender, age group, experience, family size, and place of work elucidated 51.4% of the variance in general well-being (R Square = 0.514). The predictors, age group, experience, family size, and place of work demonstrate statistically significant associations with well-being based on their respective beta coefficients and p-values presented in above table. In second model introduction of employee engagement has caused slight increase in the variance explained (R Square Change = 0.019), and employee engagement shows a statistically significant relationship with well-being (beta = -0.165, p < 0.001). Finally, with the inclusion of self-leadership beside employee engagement in the third model, there is a considerable increase in overall variance explained in well-being (R Square Change = 0.020). Both employee engagement (beta = -0.119, p = 0.005) and self-leadership (beta = 0.176, p < 0.001) demonstrate statistically significant relationships with well-being. Therefore, hypothesis H3 is accepted which means both self-leadership and employee engagement have considerable influence on general well-being.

### **Place of work and Employee Well-being**

#### **Table 4: Independent Samples t-Test**

| Dependent Variable | Groups                     | N   | Mean  | SD    | MD     | t-statistic | p-value |
|--------------------|----------------------------|-----|-------|-------|--------|-------------|---------|
| Job Satisfaction   | Mainly regular from office | 130 | 4.950 | 0.185 | 0.227  | 7.204       | 0.000   |
|                    | Mainly from home           | 280 | 4.723 | 0.451 |        |             |         |
| Job Stress         | Mainly regular from office | 130 | 3.049 | 0.224 | -0.020 | -0.503      | 0.615   |
|                    | Mainly from home           | 280 | 3.069 | 0.591 |        |             |         |
| General well-being | Mainly regular from office | 130 | 3.639 | 0.538 | 0.420  | -7.554      | 0.000   |
|                    | Mainly from home           | 280 | 4.058 | 0.491 |        |             |         |

Notes: N = Group size, SD = Standard Deviation, MD = Mean Difference, Categorical variable = Place of work  
 Source: Output from SPSS

Independent samples t-Test has been conducted to study differences in mean value of employee wellbeing (job satisfaction, job stress, and general well being) across place of work (Group 1 = mainly regular from office; Group 2 = mainly from home). The result from t-Test analysis depicts that place of work influences employee well-being and results are presented in above table. Employees mainly working from home reported higher levels of job satisfaction (M = 4.723, SD = 0.451) compared to those primarily working from regular office settings (M = 4.950, SD = 0.185) which depicts notable difference in satisfaction levels based on the work environment. There is no considerable difference in mean values of job stress between the two groups, with employees from both settings reporting similar stress levels (mainly regular office: M = 3.049, SD = 0.224; mainly from home: M = 3.069, SD = 0.591). However, regarding general well-being, employees primarily working from home exhibited higher levels of well-being (M = 4.058, SD = 0.491) compared to those primarily working from regular offices (M = 3.639, SD = 0.538) depicting adequate impact of the work environment on overall well-being.

**Findings and Discussion**

The findings of this study present several key insights in the association among self-leadership, employee engagement, and employee well-being. Firstly, demographic and contextual factors such as age, experience, family size, and place of work significantly impact employee well-being. Secondly, the addition of employee engagement enhances the analytical power of the model, indicating its importance in fostering well-being. Furthermore, the introduction of self-leadership along with employee engagement promotes further development in the model's explanatory ability which showcases the significance of individual leadership behaviors in influencing well-being outcomes. These findings underscore the complicated interplay between individual characteristics, organizational factors, and employee well-being, emphasizing the importance of developing a supportive work environment that promotes both self-leadership and employee engagement to improve overall wellbeing. More importantly, the combination of regular office and work at home is preferred in the service sector and precisely in the IT industry. However, technology is being developed to support other industries to consider work at home and work from anywhere.

**Conclusion**

The findings from this work comprehensively reveal the complex dynamics within the work-from-home context, particularly concerning self-leadership, employee engagement, and employee well-being. The results emphasize the importance of considering both individual and organizational factors in shaping well-being outcomes in remote work settings. The significant influence of demographic variables, such as age and experience, highlights the need for customized interventions that account for various needs and challenges faced by different employee groups. Furthermore, the positive impact of self-leadership and employee engagement on employee well-being emphasizes the fundamental task of personal initiative and organizational support in fostering a positive work environment, even in remote settings. Overall, these findings contribute for in-depth understanding of the factors influencing well-being in viewpoint of work-from-home (WFH) and present precious knowledge for organizations searching to optimize remote work strategies to increase employee well-being and organizational productivity.

### **Limitations and Future Research**

The core limitations in this work is about probability of common method bias due to the dependence on self-reported data for all variables, which could drive up associations between constructs. Future research might address this limitation by considering multiple data sources, like objective performance metrics or supervisor feedback, to present comprehensive gaining knowledge on the associations among self-leadership, employee engagement, and job outcomes. Additionally, the implementation of cross-sectional design in this study bounds ability to institute causal relationships. Longitudinal or experimental designs could present more robust evidence of causality and better assess dynamic nature of those constructs over time. There is also scope for considering self-leadership as mediating variable between work engagement and employee performance. Next, the employee performance can be replaced with employee well being with work engagement as predictor variable. WFH is novel concept in the modern world therefore model related to HR practices from the viewpoint of work-from-home are very important.

Moreover, this study focused completely on self-leadership and employee engagement as predictors of job satisfaction, job stress, and well-being. Future research could look at additional individual and contextual factors that may influence these outcomes in work-from-home setup. For instance, personality traits, coping strategies, organizational support, and technological factors could all play significant roles in shaping employees' experiences and outcomes in remote work environments. Furthermore, looking into the impending moderating influences of demographic variables namely gender of respondent, age group, and job experience, could provide important insights into the boundary conditions of the relationships examined in this study. Hence by considered these limitations and exploring these avenues for future research, scholars can prolong to progress for understanding complexities of WFH and its outcomes for employee well-being and organizational effectiveness.

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