

Role of covitality factors in understanding work engagement

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ABSTRACT

Covitality can be understood to be the collection of positive character strengths that facilitate the achievement of the state of flow for an individual. Living in this state of flow would ensure increased levels of work engagement formed the foundational principle for the present study. The study seeks to establish the role of six covitality factors viz. grit, resilience, life satisfaction, optimism, gratitude, and self-efficacy, in understanding work engagement in working professionals who had been working in the same organization for the past two years. Correlational and regression analyses reveal that although all the six covitality factors under study exhibit a positive, significant relationship with work engagement; only three of these possessed a predictive relationship with work engagement. Life satisfaction followed by resilience and self-efficacy were found to be the most potential predictors of work engagement

Keywords: *Work Engagement, Covitality Factors, Life Satisfaction, Resilience, Self-Efficacy*

The construct of covitality has been referred to as the indicator of interaction of positive health constructs as wellness, confidence, and overall health synergy (Timofejeva, Svence and Petrule, 2016). The term ‘covitality’ was first used by Weiss, King, & Enns (2002) as an antonym of comorbidity and was used to describe relations between positive constructs of well-being, general health and self-confidence in chimpanzees. Rashid and Ostermann (2009) describe “strengths to contribute to well-being in the same manner that weaknesses contribute to psychopathology”. Since then, it has been employed to describe the coexistence of various positive psychology constructs.

Furlong, You, Renshaw, Smith & O’Malley (2013) define covitality as the “synergistic effect of positive mental health resulting from the interplay among multiple positive-psychological building blocks”. Furlong et al. (2014) further highlighted that optimal exploration of human processes of belief in self, belief in others, emotional competence and engaged living contributes to the meta-construct of covitality. They proposed the usage of the term ‘covitality’ to define social emotional health employed in the context of positive psychology to explore the feasibility as a possible meta-construct which would encompass the interactions and effects of various positive psychological constructs and its relationship to psychological well-being. The term is now chosen to encompass healthy and positive

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Received: August 02, 2020; Revision Received: September 11, 2020; Accepted: September 19, 2020

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functioning across various life domains. Covitality, thus, is understood to be the mirror image of comorbidity, which in psychiatric terms, refers to the co-occurrence of one or more related disorder when diagnosed with a disorder (Kessler et al., 2005).

Traditionally, general intelligence has been counted as the best predictor of success for an individual. However, recently the impact of other factors such as grit, self-efficacy, resilience, self-control, etc. on success has been under study and it has been seen that non-cognitive skills can also affect positive life outcomes. Though, the term has been in use for quite a few years, strangely it came into focus through the work of a Nobel Prize laureate economist James Heckman (Heckman et al., 2014). According to Furlong et al. (2014), the psychological constructs that combine together to form the meta-construct of covitality correlate with high levels of physical health also. Large reserves of self-belief and energy, social and emotional competence, increased team interactions all contribute towards an individual being able to grow harmoniously as well as productively. Contrarily, if the prerequisite has negative connotations, it becomes more difficult for the individual to achieve a high level of covitality. Of the various positive traits under study in the current field of research, the present study focuses on six of them; namely grit, resilience, optimism, self-efficacy, life satisfaction and gratitude.

Work engagement can be understood as “positive, fulfilling, work-related state of mind that is characterized by vigor, dedication and absorption” (Schaufeli & Bakker, 2010; Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2002). Schaufeli et al.’s (2002) conceptualization of work engagement as being separate from burnout was later challenged by Cole, Walter, Bedeian and O’Boyle (2012). They conducted a meta-analysis of 50 studies and concluded that burnout and engagement showed high correlation and controlling for burnout decreased effect size of engagement considerably, thus, viewing the two separately was highly questionable.

Engaged employees are found to be highly vigorous and self-efficacious who are able to perceive control over the events happening in their lives (Bakker, 2009). They are often able to provide constructive feedback to their self after introspection as a result of their positive approach and level of action. Although, engaged employees also experience fatigue at the end of the day, this fatigue is a more pleasant state for them as compared to those who are not as engaged with their work as positive associations have been established with this state as a function of their accomplishments. Engaged employees are, however, not workaholics and enjoy activities other than their profession also; they work hard because they have fun doing it, not because they have an irresistible drive to do so (Gorgievski, Bakker & Schaufeli, 2010).

Shahpouri et al. (2016) revealed that engagement to one’s work plays a role in mediating a weak degree of relation between self-efficacy, optimism, hope and intended turnover. Researches indicate a positive association between self-efficacy and commitment towards their work (Caesens, Marique, and Stinglhamber, 2014). A study was conducted by Suzuki et al. (2015) on adults working in Japan revealed a positive correlation between work engagement and grit.

An association between work engagement and resilience was reported by Villavicencio-Ayub, Jurado-Cardenas & Valencia-Cruz (2015). However, Derbis & Jasinski (2018) suggested that there exists no association between work engagement and resilience. Mache

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et al. (2014) evaluated the relation between work engagement and resilience on a sample of German doctors and found that resilience significantly affects the level of work engagement. The term covitality incorporates an individual's proficiency for living a life filled with purpose and meaning (Furlong, Dowdy, Carnazzo, Boverly & Kim, 2014). They proposed that an amalgamation of various positive dispositions matters more in comparison to its comprising parts and, thus, nurturing the development of as many positive dispositions in an individual is more essential as compared to promoting any single disposition. Covitality is the prospect of psychology; however, few researches have been conducted in this regard. Hence, the present study undertakes to assess the existence of covitality in terms of work engagement in various professional sectors.

Hypotheses

- H_{A1}: There will be positive relationship of grit with work engagement among working professionals
- H_{A2}: There will be positive relationship of resilience with work engagement among working professionals.
- H_{A3}: There will be positive relationship of life satisfaction with work engagement among working professionals.
- H_{A4}: There will be positive relationship of optimism with work engagement among working professionals.
- H_{A5}: There will be positive relationship of gratitude with work engagement among working professionals.
- H_{A6}: There will be positive relationship of self-efficacy with engagement among working professionals.
- H_{A7}: Grit will predict work engagement among working professionals.
- H_{A8}: Resilience will predict work engagement among working professionals.
- H_{A9}: Life satisfaction will predict work engagement among working professionals.
- H_{A10}: Optimism will predict work engagement among working professionals.
- H_{A11}: Gratitude will predict work engagement among working professionals.
- H_{A12}: Self-efficacy will predict work engagement among working professionals.

METHODOLOGY

Sample

The total sample for the present study consisted of 450 working adults. The respondents to the study would be randomly selected from various organizations through convenience sampling. Furthermore, categorization on the basis of gender / age was not done. A minimum of two years in the current organization was made a pre-requisite for participation in the study.

Tools

1. **Grit Scale (GS)** The Grit Scale has been constructed and standardized by Duckworth et al. (2007) with the purpose of assessing the level of grit an individual possesses. The 12-item version of the scale was employed for the study which is answered on a 5-point Likert scale ranging from 'not at all like me' to 'very much like me'. A high score on the scale indicates higher levels of grit in the individual. The scale has acceptable internal consistency and validity.
2. **Connor – Davidson Resilience Scale (CD-RISC)** The Connor – Davidson Resilience Scale was developed by Connor & Davidson (2003) with the aim of measuring the ability to cope with stress and adversity. The 25-item version was employed for the present study. Respondents rate the items on a scale from 0 (not

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true at all) to 4 (true nearly all the time). A high score on the scale indicates high resilience levels. Test reports adequate internal consistency, high test-retest reliability and adequate levels of validity.

3. **Life Satisfaction Index A (LSIA)** LSIA (Neugarten, Havighurst & Tobin, 1961) has been designed as a measure of the zest that an individual experiences for life, mood tone and the congruence between his desired and achieved goals. The version of the scale being employed consists of 20 items followed by six response options ranging from 'very dissatisfying' to 'very satisfying' with a high score indicating higher satisfaction with life. The scale has been found to have acceptable internal consistency ($\alpha = 0.76$) as well as satisfactory concurrent validity with other measures of life satisfaction.
4. **Learned Optimism Test (LOT)** The Learned Optimism Test (LOT) is a scale developed by Martin Seligman (1991) and is designed to measure dispositional optimism. It consists of 32 situations to which respondents indicate how they would most likely respond. A high score indicates high level of optimism. The test has been found to have adequate reliability and validity.
5. **Gratitude, Resentment and Appreciation Test (SGRAT)** The Gratitude, Resentment and Appreciation test was developed by Watkins, Woodward, Stone & Kolts in 2003 designed to measure an individual's dispositional gratitude. The scale incorporates three sub-scale scores of lack of a sense of deprivation, simple appreciation and appreciation for others. The short form (SGRAT) consists of 16 items where the respondent is required to respond to the items on a nine-point scale from 'I strongly disagree' to 'I strongly agree' with a high score obtained on the scale indicating high level of dispositional gratitude. The short version displays reliability and validity similar to the initial long form.
6. **General Self-efficacy Scale (GSES)** The General Self-efficacy Scale was constructed and standardized by Schwarzer and Jerusalem in 1995 with the intention to assess a general sense of perceived self-efficacy with the aim to predict coping with daily hassles as well as adaptation. The scale consists of 10 items followed by 4 response options indicating the applicability of the statement. A high score indicates a high level of self-efficacy. The scale reports Cronbach's α ranging between 0.76 to 0.90 and adequate criterion-related validity.
7. **Utrecht Work Engagement Scale (UWES)** The Utrecht Work Engagement Scale was originally developed and standardized by Schaufeli and Bakker (2003) which was designed to assess the level of work engagement in adults. The short form of the scale consisting of 9 items followed by seven response options ranging from never to always/everyday was employed for the study. A high score indicates high level of work engagement. Cronbach's α of the short version of the scale varies from 0.85 to 0.94 (median = 0.91) across 9 national samples. The α value for total data base was found to be 0.90.

Design

The study is a quantitative research study, which employs a correlational design to assess the role that the selected constructs play in the work engagement of working professionals. The study aims at establishing correlation between the constructs chosen to further comprehension of the nature of these variables. Furthermore, multiple linear regression analysis will be employed to assess the role covitality factors play in understanding work engagement.

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Procedure

The data for the present study was collected in parts from various locations of Madhya Pradesh and Uttar Pradesh, India. The data collected for the defence personnel was selected from various cantonments located in Bhopal, Mhow, Sagar, Varanasi and Delhi. Since the tools are extensive yet self-explanatory in nature, the administration required around 60-80 minutes which were administered in 1–2 sessions as per the subject's convenience.

RESULTS AND DISCUSSION

Coefficient of correlation was calculated through Pearson's Product Moment method to better understand the nature of relationship between covitality factors and work engagement. Table 1 below presents the correlation matrix between the predictor variables grit, resilience, life satisfaction, optimism, gratitude and self-efficacy with criterion variable work engagement.

Table 1 showing the correlation matrix of the predictor variables, namely, grit, resilience, life satisfaction, optimism, gratitude and self-efficacy with the criterion variable namely, work engagement among working professionals (N=450)

Predictor Variables	(Criterion Variable) Work Engagement
Grit	.212**
N	450
Resilience	.245**
N	450
Life Satisfaction	.300**
N	450
Optimism	.151**
N	450
Gratitude	.218**
N	450
Self-Efficacy	.213**
N	450

***significant at 0.01 level of significance*

The observations presented in table 1 above present the relationship of covitality factors viz. grit, resilience, life satisfaction, optimism, gratitude and self-efficacy with the criterion variable work engagement among working professionals. A significant, positive correlation (significant at 0.01 level of significance) was found between all the chosen covitality factors and work engagement among public, private and defense professionals. The hypotheses set for testing the correlation between the six covitality factors and work engagement (H_{A1} to H_{A6}) were accepted.

Singh & Chopra (2018) and Robertson-Kraft & Duckworth (2014) assessed the role grit plays in understanding work engagement and observed that perseverance component of grit was able to significantly predict work engagement. Gritty individuals demonstrate a passion for achieving their goals in spite of the time required to achieve that goal which keeps him engaged in the task he has undertaken. Furthermore, any obstacles that may come which may obstruct his path of reaching the goal are also dealt with pragmatically (Luthans, Vogelgesang & Lester, 2006). This characteristic of being resilient in face of obstacles and yet pursuing one's goal through a new approach protects the individual from stress (Krush et al., 2013) and helps the individual focus better on the functional aspects. Upon testing, a positive correlation between resilience and work engagement has been reported in working

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professionals through various studies (Othman, Ghazali & Ahmad, 2013; Wang, Li & Li, 2017; King, Newman, & Luthans, 2015; Mache et al., 2014; Bande et al., 2015).

In addition to resilience acting as a buffer against the stresses of life, optimism has also been observed to act as a buffer against the high demands that the job may place on an individual and help enhance engagement in one's work. Acting as a buffer, optimism aids individuals in resisting the negative energy that arises out of high demands at work (Carver et al., 2010) and would also enable better coping strategies leading to enhanced well-being. Smith, Pope, Rhodewalt & Poulton (1989) explored the nature of the type of coping strategies employed by optimistic people and report that those with higher optimism employed problem-focused coping more than avoidant coping strategies. Numerous studies lend support to the significant, positive relationship understood to occur between optimism and work engagement for example Priyatama, Zainuddin & Handoyo (2018); Luthans, Norman, Avolio & Avey, (2008); Xanthopoulou et al., (2009a); Xanthopoulou et al., (2009b).

The feeling of accomplishment that one experiences when he feels satisfied with his life leads the individual to live in a state of flow: the state of being completely immersed in the activities that the individual is performing. This complete absorption in the tasks that one is performing contributes to the work engagement exhibited by the individual. In fact, Schaufeli et al. (2002) describe absorption as one of the three components of work engagement with the other two being vigor and dedication. A positive relationship is reported between work engagement and life satisfaction by Upadyaya, Vartiainen & Salmela-Aro (2016) in a long-term occupational health study.

A grateful individual is aware of not only all that went right but also of all that could have gone wrong and takes all that went right as a privilege. Hence, expressed gratitude may lead to a state of well-being by preventing burnout in individuals. Bennett, Ross & Sutherland (1996) reported that when employers and patients expressed gratitude to care-givers of HIV/AIDS patients, it helped buffer the care-givers against burnout. Dispositional gratitude has also been reported to have a negative relationship with workplace burnout in teachers as reported by Chan (2010).

Engaged employees demonstrate high energy levels as well as are mostly in control of their lives. Furthermore, they tend to create their own positive feedback because of their self-motivation and positive outlook. This self-efficacious quality of theirs serves as recognition and appreciation for their own self, limiting their dependency on external sources for credibility of their success. Furthermore, because engaged employees do not see their work as just a task to be accomplished but as something which is enjoyable and stimulating, they are willing to put in the efforts and time required to do their job well. This corresponds to the vigor component of work engagement which may be the possible reason for the present results. Priyatama, Zainuddin & Handoyo (2018); Salmela-Aro & Upadyaya (2014); Xanthopoulou et al. (2009a); Bakker and Demerouti (2008); and Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) corroborate the positive association between self-efficacy and work engagement.

Multiple Linear Regression Analysis

Multiple linear regression analysis was used in the present study to investigate predictive relationship between the criterion and predictor variables. Therefore, robustness check for variables was verified before applying multiple regression analysis for different hypotheses. The results are shown in the table 2 below.

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Table 2 showing summary of robustness checks (predictors: life satisfaction, resilience and self-efficacy and criterion: work engagement) for Multiple Regression Analysis for the sample

Table number	Hypo	Criterion	R ²	Test of robustness				Whether robustness verified
				Linearity Residual Plots	Multicollinearity Tolerance & VIF (Range: Tol – 0-1, VIF- 1-9)	Normality PP Plots	Independence Durbin – Watson (Range: DW<3)	
				1	3	4	5	
2	9, 8, 12	Y	.133	Satisfied	Tol : .929 VIF : 1.076	Satisfied	1.663	Satisfied

Predictor variables: X₁ = life satisfaction, X₂ = resilience and X₃ = self-efficacy
 Dependent variable Y = work engagement

For checking normality, skewness and kurtosis coefficients, histograms (Figure 1) and QQ plots were checked. Histograms and box plots indicate that most of the items were normally distributed. Additionally, all skewness and kurtosis statistics were acceptable because they were different from and not so distant from 0. For multicollinearity, the Variance Inflation Factor (VIF) and Tolerance statistic were examined. VIF (1.076) is smaller than 5, and tolerance statistic (.929) is above 0.2 and below 1. Thus, there was not any strong correlation between the predictors in the regression model.

Histogram

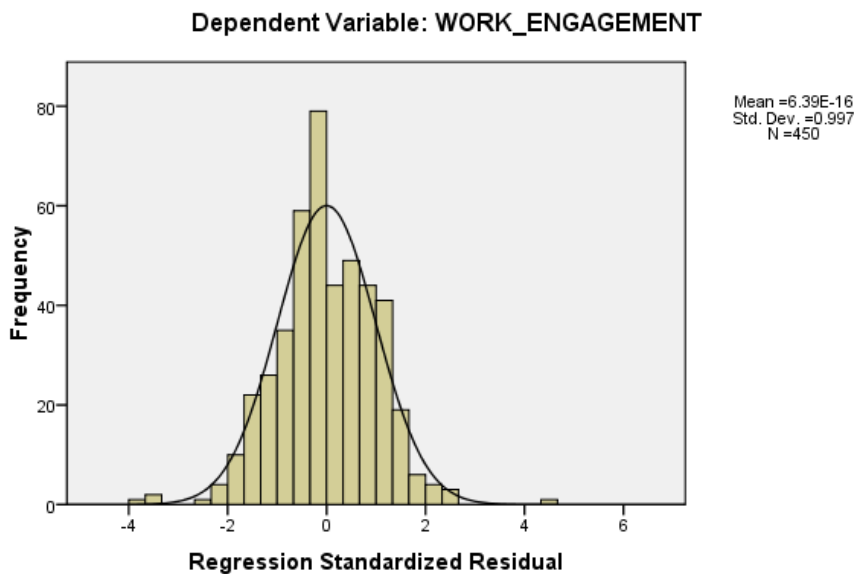


Figure 1 presenting the histogram, M & SD for dependent variable work engagement

Independent errors assumption was checked by the Durbin-Watson test. The Durbin-Watson value for the present study was (1.663) which is less than 3. Thus, none of the residuals were correlated. Linearity and homoscedasticity were assessed by scatter plot. Points on the plot were randomly dispersed throughout the plot. Thus, the model was a linear one, and the residuals at each level of predictors had the same variance.

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It can be seen from the table 2 that parametric assumptions viz. linearity, multicollinearity, test of normality and independence for variables under consideration are verified.

Step-wise method for selecting the predictor variables for the regression model was considered suitable, as it is perhaps the most widely used method. If the variable fails to meet entry requirements (either FIN: F-to-enter or PIN: Probability of F-to-enter), the procedure terminates with no predictor variable in the equation. If it passes the decisive factor, the 2nd variable is chosen according to the upmost partial correlation. If it passes entry criteria, it also enters the equation.

Further, the effect size for significant predictor variables was computed to estimate the magnitude or size of an effect on criterion variable. Cohen's f^2 which is one of effect size suitable for multiple linear regression analysis was computed. Table 3 shows descriptors for magnitudes of f^2 as suggested by Cohen (1988). The formula used to calculate effect size (Cohen's f^2) is shown below:

$$f^2 = \frac{R^2}{1 - R^2}$$

Where, R^2 is the squared multiple correlation.

Table 3 showing levels of effect size for Cohen's f^2

Effect Size	Cohen's f^2
Small	0.02
Medium	0.15
Large	0.35

Table 4 presented below shows the results of multiple linear regression analysis for different sets of predictors and criterion variables with regression coefficient values.

Table 4 showing the results of stepwise multiple linear regression analyses by considering life satisfaction (X_1), resilience (X_2) and self-efficacy (X_3) as predictors of work engagement (Y)

Predictor Variables	Standardized Beta coefficient	Multiple R	R^2	R^2 Change	f^2	F	P
Model $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$							
LS (X_1)	.300	.300	.090	.090	.098	44.173**	.000
LS(X_1),R(X_2)	.248	.341	.116	.026	.026	29.314**	.000
LS(X_1),R(X_2), SE (X_3)	.216	.365	.133	.017	.017	22.789**	.000

Constant 23.745

Predictor Variables: X_1 = life satisfaction, X_2 = resilience and X_3 = self-efficacy

Criterion Variable: Y = work engagement

**p <0.01 (one-tailed)

From table 4, it can be understood that among life satisfaction, resilience and self-efficacy, life satisfaction emerged as the most potential predictor of work engagement among working professionals. The square of multiple correlations (R^2) shows that 9 % of the variance in work engagement was illustrated by life satisfaction; 2.6% variance in work engagement is determined by resilience (R^2 change = 2.6% variance) and self-efficacy emerged as the third potential predictor of work engagement (R^2 change = 1.7% variance). Life satisfaction and

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resilience together explained 11.6% variance in work engagement. Moreover, life satisfaction, resilience and self-efficacy collectively explained 13.3% variance in work engagement among working professionals.

By considering the F value of life satisfaction ($F = 44.173$, $p < 0.01$), resilience ($F = 29.314$, $p < 0.01$) and self-efficacy ($F = 90.789$, $p < 0.01$), it can be determined that life satisfaction, resilience and self-efficacy individually as well as collectively contributed significantly in predicting work engagement among working professionals. This model fits good for the sample. Further, Cohen's effect size values ($f^2 = 0.098$, $f^2 = 0.026$ & $f^2 = 0.017$ respectively) suggested a large strength of association of life satisfaction, resilience and self-efficacy with work engagement among working professionals.

The beta values of life satisfaction ($\beta = 0.300$), resilience ($\beta = 0.248$) and self-efficacy ($\beta = 0.216$) suggest that all three predictors have significant impact on work engagement. Further, it can be seen that life satisfaction has the strongest coefficient ($\beta = .300$) followed by resilience ($\beta = .248$) and lastly self-efficacy ($\beta = .216$). Thus, H_{A9} which states that life satisfaction will predict work engagement among the defense, public and private sector professionals is supported by the results of the study.

The observations of the present study indicate that resilience came out a significant predictor of work engagement among working professionals. Hence, H_{A8} which states that resilience will predict work engagement among the defense, public and private sector professionals is supported by the findings.

The findings also supported self-efficacy as a significant predictor of work engagement among working professionals. Therefore, H_{A12} stating that self-efficacy will predict work engagement among the defense, public and private sector professionals is supported by the results as well.

In contrast, it has been found from the results calculated by multiple regression that grit, optimism and gratitude among other covitality factors do not have any significant predictive role in work engagement of working professionals. Therefore, hypotheses numbers H_{A7} , H_{A10} and H_{A11} (H_{A7} : Grit will predict work engagement among defense, public and private sector professionals; H_{A10} : Optimism will predict work engagement among defense, public and private sector professionals; and H_{A11} : Gratitude will predict work engagement among defense, public and private sector professionals) are not supported by the findings of the present study.

Contentment with one's lot in life paves the path for him to view and engage in his life better as compared to those dissatisfied with their life. This positive evaluation reinforces an individual's vitality which reflects in his engagement with his chores. Studies have attempted to explore and establish the link between life satisfaction and work engagement. Some studies point towards the predictive role of work engagement in life satisfaction (Bakker and Demerouti, 2008; Gebauer and Lowman, 2008) whereas some indicate the opposite (Schmitt & Mellon, 1980).

When an individual feels confident in the work that he does and demonstrates efficiency in it, it is reinforced through various channels such as the superior's praise, the colleagues' feedback and increased performance. It creates a resource reserve that bolsters which enables achievement of balance of all the demands made on the individual. Employees who

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are high on self-efficacy are better able to build resources based on other resources that they have whereas the resources they lack may drain on their existing resources also (Hobfoll, 2001; Demerouti, et al., 2004; Xanthopoulos et al., 2009a).

Author Heather Schuck once said an individual will not feel satisfied with the work he is doing until he is satisfied with what he has achieved in life. In view of the paucity of research regarding the impact of covitality factors on work engagement, the research provided insight in to how positive traits affect the work life. Although all six of the covitality factors chosen for the study were found to exhibit a positive, significant relationship with work engagement; life satisfaction, resilience and self-efficacy were found to contribute the highest to work engagement in working professional. The research was a precursor to understanding the impact of character strengths on the work life of an individual which impacts all other domains of life.

CONCLUSION

Present study was more exploratory in nature as not a lot of literature is available relating to it. The study helps establish the role of a few character strengths in understanding work engagement but it does not explore the mediating role of other variables in understanding the relationship between the two variables under study. The study can lay the foundation for future explorations into understanding how work engagement is affected by the covitality factors. This can help provide direction to programs and trainings designed for working professionals.

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Acknowledgements

The author appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author declared no conflict of interest.

How to cite this article: Dutta U. & Singh A.P. (2020). Role of covitality factors in understanding work engagement. *International Journal of Indian Psychology*, 8(3), 985-997. DIP:18.01.106/20200803, DOI:10.25215/0803.106