



ORIGINAL CONTRIBUTION

Impact of Vitality on Job Performance, Male versus Female: An Empirical Study of the IT Sector of Pakistan

Imran Akbar Saifi^{1*}, Prof. Dr. Abu Bakar Abdul Hamid², Dr. Waqas Farooq³

¹ University of Management & Technology Lahore, Pakistan.

² Putra Business School, Malaysia.

³ University of the Punjab, Lahore Pakistan, Pakistan.

Abstract— Vitality is concerned with motivation, opportunity, and engagement. The objectives of this study are first to analyze the relationship between vitality and job performance, and secondly, whether male and female employees differ concerning self-reported vitality and job performance working in the IT sector of Pakistan. Lastly, the impact of vitality on job performance is the same on both genders, or it differs. Data were collected from IT professionals working in different IT-sector companies using a self-administered structured questionnaire. The results identified a significant relationship between vitality and job performance. Self-reported job performance differs for males and females, whereas no difference was found in vitality. The novelty of this study was the impact of vitality on job performance that was different for males and females. The findings of this study have significant implications for managers in the IT sector. Furthermore, limitations and future directions are discussed, addressing the issues of vitality and job performance based on gender.

Index Terms— Vitality, Job Performance, Male, Female, Gender.

Received: 13 May 2021; **Accepted:** 16 September 2021; **Published:** 10 November 2021



Introduction

Organizations must be cognizant of the characteristics of the workforce to prepare them better to meet the organization's goals and objectives. A high level of employee productivity continues to be the goal of managers around the world and Pakistan (Amjad, 2018; Imam, Javed, & Sciences, 2019; Soomro & Hafeez, 2020; Zeb, ur Rehman, Imran, Ali, & Almansoori, 2020). Sonnentag, Volmer, and Sychala (2008) stated that high-performing employees are critical for any organization and their performance outcomes result in various tangible and intangible benefits, such as attaining a tough task leading to job satisfaction and developing expertise. The recognition of high performance provides them with rewards, better career options, and promotions. The role of behaviors related to good job performance is widely recognized; simultaneously, these behaviors demand the presence of requisite motivation and energy, as is the case with other positive human emotions. Clark, Boyer, and Corcoran (1985) stated that vitality refers to those essential yet intangible, positive qualities that enable purposeful production. The phenomenon of subjective vitality is defined as, "one's conscious experience of possessing energy and aliveness" (Ryan & Frederick, 1997, p. 530). Finkelstein (1996) defined vitality as "those who are consistently motivated by some sense of purpose and to identify and take advantage of opportunities (p. 71)." He posited that the concept of vitality is concerned with motivation, opportunity, and engagement with work and work-related goals. In the present study, we argue that in order to attain a certain performance level, employees are required to manage their available resources due to the human psyche as they are not productive all the time.

*Email: anaschtm@gmail.com

Literature suggests that employees of both genders with energy, motivation, and inspiration are more likely to perform well than others (Op den Kamp, Tims, Bakker, & Demerouti, 2018). The extant literature has extensively documented that, while researching employees' job-related behaviors, the use of the androcentric approach is not valid due to its embedded bias (Chiang, Low, & Collins, 2013). This leads us to the research gap where studies which examine gender differences in-depth are rare; however, other than a recent study conducted by Wegman, Hoffman, Carter, Twenge, and Guenole (2018) that highlighted gender as an influential factor related to feedback and task significance.

Objectives and significance of the study

The first objective of this study was to analyze the relationship between vitality and its impact on job performance. Secondly, keeping in view the demographical dynamics in IT-sector organizations of Pakistan, this study will explore in-depth the variation in vitality and job performance between male and female employees to determine whether or not the impact of vitality on job performance is the same on both genders. The results of this study will help improve managers' decision-making regarding the incorporation of vitality in HR strategies. Accordingly, this study makes several contributions. First, we consider the effect of vitality, which has received little attention in prior job performance studies. Second, it will explore vitality's impact separately on male and female employees. Third, the employees working in the IT-sector organizations of Pakistan are completely ignored who are responsible for bringing in precious foreign exchange and contributing to the GDP of Pakistan.

Literature Review

Job Performance

Job performance (JP) is an extensively studied variable in industrial-organizational (I/O) psychology. Campbell and Wiernik (2015) argued that without an individual's JP, there is no team, unit, organizational, economic performance, and no GDP and has, therefore, been extensively studied. Job performance is defined as "the extent to which an individual can accomplish his or her job tasks under the normal constraints of the job with the utilization of available resources" (Jamal, 2016, p. 406).

Job performance focuses on behaviors within the control of an individual employee. It does not involve measuring outcomes and achieving targets in the set time (Jex & Britt, 2014). Rotundo and Sackett (2002) defined JP as the actions and behaviors in control of individuals that contribute to organizational goals. It is, therefore the value created by employees' behavior over time. (Chong, & Lee, 2017; Motowidlo, Lievens, & Ghosh, 2018) summarized the argument that variance in performance is variance in the expected organizational value of behavior.

Vitality

People often express being particularly alive or revitalized in certain situations or the aftermath of events, while in other circumstances, they may feel "dead" or drained (Malik & Macintosh, 2015). It concerns a specific psychological experience of possessing enthusiasm and spirit that we refer to as vitality. Vitality is derived from vital, which Merriam-Webster's Collegiate Dictionary states as "full of life and vigor." Clark et al. (1985) stated that vitality refers to those essential yet intangible, positive qualities that enable purposeful production. A vital employee also has a higher sense of self as a locus of control (Finkelstein, 1996). Vitality illustrates that it is more than just a measure of how much one produces and the quality of that work (Elahi, Abid, Arya, & Farooqi, 2020; Smith, 1978).

As a starting assumption, subjective vitality is viewed as a reflection of both organismic and psychological wellness (Cowen, 1994; Diener, 1984) and is therefore influenced by both psychological and somatic factors. The perception of self as the locus of control or being in control of your work environment has been investigated as a predictor of performance (Jackson, 2000; Nienhuis, 1994).

Conservation of resource theory

The conservation of resources (COR) theory was proposed by Hobfoll, Halbesleben, Neveu, and Westman (2018). The principle of COR suggests that individuals are motivated to conserve their current resources and acquire new resources (acquisition). Resources are loosely defined as objects, states, conditions, and other things that people value (Hobfoll et al., 2018). COR is based upon two basic principles linked with resource loss and protection of resources from being lost (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014; Hobfoll, 1989; Hobfoll et al., 2018). The first principle of this theory is called the Primacy of Resource Loss (Halbesleben et al.,

2014). This principle explains that it is more hurtful to lose resources than to gain resources (Halbesleben et al., 2014; Nucharee, & Teeradej (2019). The second principle is known as the Investment of Resource. This principle of COR explains that people will invest in protecting the resource loss or in gaining resources. Within the context of coping, people invest in resources to prevent future resource loss (Halbesleben et al., 2014). Based on this principle, it is proposed that when an individual loses their self-control, then vitality acts as a mechanism for protection against resource loss leading to job performance. It is hypothesized that:

H1: *Vitality is significantly related to employee job performance.*

Dankoski, Palmer, Laird, Ribera, and Bogdewic (2012) pointed out that gender was not significant in their proposed expanded model of vitality compared to other unique factors that contribute to it. Tummers, Steijn, Nevicka, and Heerema (2018) analyzed the sample for similarity among demographic variables that could affect vitality. The difference on the basis of gender was found to be insignificant. This indicates that the groups were equivalent concerning vitality. This cancels out potentially confounding effects, making it unnecessary to include these background variables in the subsequent analyses. Hosseini (2018) argued that when controlling for employees' gender, similar results were found for vitality as well. Thus, it is hypothesized that:

H2: *Self-reported vitality of male employees is the same as female employees.*

Kakar (2002) on male and female police officers' performance pointed out that there was no significant variation in their job performance even when years of experience and education level were controlled. In a meta-analysis conducted on measures of job performance by Roth, Purvis, and Bobko (2012), the findings suggested that female employees' performance was slightly higher than their male counterparts. The further analysis pointed out that, although job performance ratings favored females, however, promotion ratings favored males. The authors suggested further scrutiny of promotion ratings, but overall, their meta-analysis supported similar performance for both genders. Thus, it is hypothesized that:

H3: *Self-reported Job performance of male employees is the same as female employees.*

As highlighted earlier, understanding gender issues is critical within today's organizations. As the IT industry of Pakistan is comprised of both genders, it is important to analyze the impact of vitality on the two gender groups' job performance. This proposition was further elaborated on by Morrison (1994), who found out that demographics can influence behavior. In the light of Eagly (2013) study on social role theory, he pointed that certain differences concerning behaviors are gender-specific, originating from the tendency for men and women to conform to different socially constructed gendered role expectations. Jiang, Liu, McKay, Lee, and Mitchell (2012) suggested that the characteristics of these role expectations for men result in them being seen as more "assertive, masterful, and independent and women as more affiliative and communal (p.1079)." Thus, it is hypothesized that:

H4: *Vitality significantly impacts job performance such that there will be a different impact of vitality on male and female employees.*

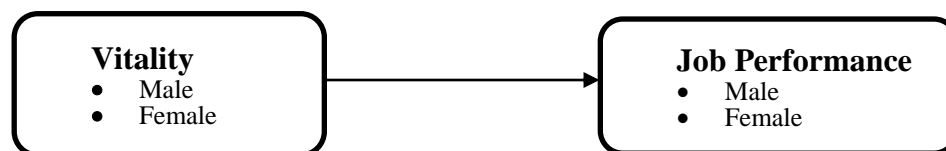


Fig. 1. *Theoretical Model*

Method

Sample & demographics

The sample consisted of 215 employees working in different organizations in the IT sector of Lahore, Pakistan. Table 1 shows the demographic profile of the respondents who participated in this study. As depicted in Table 1, the study revealed that there were 57 (26.50%) female and 158 (73.50%) male respondents. Even though the efforts were made to add more female respondents, the low percentage of females was because, in Pakistan, the number of female employees in the corporate sector is generally less than males due to being a male-dominated society. Most of the respondents (46.3%) were educated up to a Master's degree with a total of 16 years of education, and 33.8% had Master's degree with 18 years of education, followed by those who had a Bachelor's degree with 16 years

of education (13.4%). Only eight respondents (3.7%) had a Ph.D. degree.

Table I
Demographic Profile of Respondents

Demographic Variable	Information	Frequency(n)	Percentage (%)
Gender	Male	158	73.5
	Female	57	26.5
	Total	215	100.0
Education	PhD	8	3.7
	Master's 18 years	73	33.8
	Master's 16 years	100	46.3
	Bachelor's 16 years	29	13.4
	Other	6	2.8
	Total	216	100.0

Measures

To ensure the appropriateness of the constructs and their clear operationalization, four researchers reviewed the questionnaire for face and content validity. The paper-based self-administered structured questionnaire was distributed manually to managers of SMEs of different IT-sector organizations so that they could distribute it among their subordinates.

Job Performance was measured on the five-point Likert scales and the seven-item scale developed by Williams and Anderson (1991) (see Appendix I for detail), with the last two items reverse-coded. Its reliability from literature was Cronbach's alpha = 0.94. Vitality was measured using the six-item instrument with a 5-point Likert scale developed by Ryan and Frederick (1997), having a reported Cronbach alpha reliability of 0.88 (See Appendix I for detail).

Data Collection

This research attempts to evaluate phenomena that are not traditionally apparent, in which a survey is reflected as the suitable method to grasp the discoveries from a huge population. More than 500 questionnaires were handed over to the respondents personally with an attached covering letter to get a better response rate. The covering letter was meant to be a general guideline for respondents to quickly understand the purpose and scope of the research along with the scope of the study and the assurance of complete confidentiality of the private information being provided.

A total of 223 responses were received after one month. The resulting response return rate was 31 percent, which is considered acceptable and satisfactory (Hair et al., 2010). Eight questionnaires were found with more than 50% missing entries and were, therefore, excluded from the dataset, leaving 215 questionnaires behind for further scrutiny.

Data Analysis

SPSS version 24 was used to analyze the dataset. The dataset was analyzed for common method bias (CMB) through Harman's single factor score by using principal axis factoring and forcing extracted factors to one. If the value is 50% or less, then it suggests that there is no effect of CMB in the dataset (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In this study, it was 27.09% which is less than 50% and, therefore, accepted.

Since the instruments job performance (7 items) and vitality (6 items) were adapted from the studies developed and conducted in different fields and cultures. An exploratory factor analysis (EFA) using principal component analysis having varimax rotation was performed. To detect whether data is unidimensional or multi-dimensional, furthermore, to validate the variables in the current context. As shown in Table 2, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy value is 0.830 and is close to 1.0, and is therefore acceptable. Secondly, Bartlett's test of sphericity $p=0.000$ is lower than 0.05, suggesting adequacy of sample size for factor analysis (Hair et al., 2010). The total variance explained was 62.787. Table 3(a) & 3(b) contains the results of commonalities and rotated component matrix factor analysis of vitality and job performance items.

Table II
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Adequacy Measure	of Sampling	0.830
Bartlett's Test of Sphericity	Approx. Chi-Square	578.703
	Df	28
	Sig.	0.000

Table IIIa
Communalities

	Initial	Extraction
Vitality3	1.000	0.575
Vitality4	1.000	0.633
Vitality5	1.000	0.641
Vitality6	1.000	0.625
JobPerf2	1.000	0.675
JobPerf3	1.000	0.725
JobPerf4	1.000	0.627
JobPerf5	1.000	0.522

Extraction Method: Principal Component Analysis.

Table IIIb
Result of Factor Analysis

Rotated Component Matrix		
	Component	
	1	2
JobPerf3	0.847	
JobPerf4	0.783	
JobPerf2	0.777	
JobPerf5	0.665	
Vitality5		0.795
Vitality4		0.782
Vitality6		0.755
Vitality3		0.720

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

In Table 3(a), a communality value of 0.5 and above is considered satisfactory to include an item in EFA. The results of the factor analysis support the factorial independence of the two constructs. The values of the three items of job performance and two items of vitality were below the 0.5 threshold value and were therefore dropped. According to Hair, Black, Babin, Anderson, and Tatham (2010), loadings of 0.50 or greater are considered substantial for factor analysis, and Cronbach's Alpha value should be greater than 0.7. Table 4 shows the mean, standard deviation, Cronbach's Alpha, and correlation values. Cronbach Alpha value of job performance is 0.799, and vitality is 0.792, which is more than the threshold value. Moreover, these two variables are significantly ($r=0.467$, $p=-.000$)

correlated with one another.

Table IV
Mean, Standard Deviation, and Correlation

	Mean	Standard Deviation	Cronbach's Alpha	Correlation
Job Performance	4.056	.680	0.799	
Vitality	3.806	.749	0,792	.467**

*P=0.01***, *P=0.05**

A linear regression analysis was conducted, the results of which can be seen in Table 6, to assess the impact of vitality on job performance. Results of the research indicate that R-square value of 0.218 and $F(1, 214) = 59.547$, $p = 0.000$. The value of beta value indicates that as vitality goes up one point, it causes job performance increases by 0.467.

Table V
Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.443	.213		11.476	.000
	VM	.424	.055	.467	7.717	.000

a. Dependent Variable: JP

Male vs Female Employees

To assess whether self-reported job performance and vitality differ concerning male and female employees, we performed an independent sample t-test. The means and standard deviation of the groups are shown in Table 7 below.

Table VI
Gender-based Mean and Standard Deviation

	Gender	N	Mean	Std. Deviation
Job Performance	Male	158	3.99	0.65
	Female	58	4.23	0.72
Vitality	Male	158	3.84	0.72
	Female	58	3.70	0.82

The group means of self-reported job performance, and vitality for males are 3.99 and 3.84, respectively, whereas the group means of females' self-reported job performance and vitality are 4.23 and 3.70, respectively. The independent sample t-test reported that Levene's test for equality of variances for job performance and vitality are $F=2.336$, $p=0.128$, and $F=1.491$, $p=0.223$, respectively. According to Carver and Nash (2008), when conducting an independent t-test, the researcher should consider Levene's test results. This test indicates whether the variance of two populations is equal or not. In cases when Levene's test is significant, the researcher should consider a t-test, which assumes that equal variance is not assumed, and vice-versa. Therefore, in the current case, we consider equal variances assumed for both job performance and vitality.

The results of the independent sample t-test is shown in table 8. The results indicate that self-reported job performance is different for male and female employees as the standard error value of the t-test is -2.321 and is significant ($p=0.021$). Hence it can be concluded that male and female employees' self-reported job performance differ. No difference was found concerning vitality as the value of t-statistic is 1.226 and is insignificant $p=0.222$. It can therefore be concluded that male and female employees' self-reported vitality do not differ.

Table VII
Independent Samples Test

	Levene's Test for Equality of Variances	t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Job Performance	Equal variances assumed	2.336	0.128	-2.321	214	0.021	-0.23990
Vitality	Equal variances assumed	1.491	0.223	1.226	214	0.222	0.14077

For further analysis and to get a clearer picture, pairwise comparison for males and females was conducted through regression analysis by splitting the gender variable. The results in table 9 indicated that due to vitality, variation in job performance explained (R-square value) for males is 26.4% for females is 18.5%, whereas p-value for both models is significant at $p \leq 0.001$. The results indicate that with one unit increase in vitality, job performance for male employees increases by 0.514 and 0.430 for female employees.

Table VIII
Linear Regression Analysis

Gender	R Square	Constant	Unstandardized Coefficients B	Standardized Coefficients ^a Beta	Sig.
Male	0.264	2.201	0.466	0.514	.00
Female	0.185	2.822	0.381	0.430	.00

a. Dependent Variable: JP
b. Predictors: (Constant), V

Discussion

The objective of this study was to analyze the relationship between vitality and its impact on job performance. The linear regression results of H1 found a significant relationship between vitality and job performance, indicating that employee vitality contributes to improving employees' job performance. The extant literature suggests few strategies to improve employee's vitality that leads to their well-being. It includes providing employees means to improve vitality through yoga training, social gatherings including outdoor activities, sports activities, and onsite employee wellness programs. Some civil engineering studies have brought a different perspective by inducing vitality through architecture and design, including keeping open and green spaces while constructing an organization's workspace (Ex: Google Silicon Valley office) that keeps their workforce motivated and happy.

The finding of this study is further elaborated in the light of COR theory that suggests that individuals are motivated to conserve their current resources and acquire new resources (Hobfoll et al., 2018). The second principle of COR theory is known as Investment of Resource, as mentioned in the literature review above. This principle of COR theory explains that people will invest in protecting the resource loss or in gaining resources. Within the context of vitality as a coping mechanism, people invest in resources to prevent future resource losses (Halbesleben et al., 2014). This resource investment, in this case, is the presence of vitality that helps indulge employees in investing and protecting their existing resources as well as acquiring new ones. In this case, this study was unable to refute the theory.

The results of hypothesis H2, suggest that there was no difference found between self-reported vitality of male and female employees. The value reported in the t-test was insignificant, and this finding reported in table 8 was in line with the results reported in the literature. Hypothesis H3 was that the self-reported job performance of male employees is the same as that of female employees. In the light of the results presented in table 7, it can be seen that there is a considerable difference in mean values. The higher mean value for females suggests higher job performance as compared to males. It is contrary to the findings reported in the extant literature, where the job performance was found to be similar. In this study, this anomaly can be explained in the light of the presence of a self-

reported job performance questionnaire. In previous studies, job performance is also measured with the supervisory report and peer report surveys. The use of such an instrument helps in controlling self-representation bias, as is the case in this research. There is a possibility of underlying exaggeration in the self-report job performance tool.

Keeping in mind the demographical dynamics in IT-sector organizations of Pakistan, our next objective was to explore the variation in job performance and the impact of vitality on male and female employees. The demographic data suggests that employees working in the IT sector are highly qualified and skilled, whether it's computer programming or software engineering, etc. The entry-level requirement for a job in this sector is a minimum graduate with 16 years of education. Admission to the highest-ranking universities in Pakistan is open merit, with only the best entering into this field due to its global importance. It was, therefore, deemed necessary to explore in-depth based on demography. The results of H4 revealed a significant impact of vitality on both the genders, along with an interesting insight that the impact of vitality on job performance was more on males as compared to their female counterparts, as reported in table 9.

As mentioned above, there are some observed behavioral differences based on socially constructed gendered role expectations. Men characterized as being more "independent, masterful, and assertive" may cause resource loss that may push men more towards stress due to their being comfortable working alone and being assertive regarding their opinion. While female employees maintain their performance through involvement with their community and colleagues, they too require vitality to cope with the above situation. However, the availability of vitality as a coping mechanism lies in the external environment, and in a country such as Pakistan, where the society is more male-dominated, women's access to vitality-inducing resources is difficult compared to men, who can more easily join a gym or relevant yoga and outdoor recreational activities. The organizations are still far behind in providing on-site wellness programs due to monetary investments, as the IT sector is mostly based upon small and medium enterprises (SMEs).

Conclusion

We conducted a regression analysis to assess the impact of vitality on gendered employee job performance working in the service sector of IT-related jobs. The results prove that vitality significantly improves the job performance of all employees. Comparisons of the data analysis results have served as the foundation in understanding what the psychological difference between male and female employees is when it comes to coping. This research was able to establish new insights into where the coping mechanism behaves differently when it comes to gender. To improve the job performance of females, the relevant HR departments need to work upon a dedicated focus for vitality-inducing activities for female employees as well. As discussed earlier, jobs in this sector are highly competitive, even more so for women who join the IT sector after competing with male candidates and are equal contributors to organizational performance. Improvement in vitality among them and providing them with equal opportunities may bring them to the same level as their male counterparts.

Limitations and future research directions

This study has some limitations. First, the limited resources including time constraints, especially in the Covid-19 situation where due to lock-downs and unavailability of employees in their offices resulted in difficulty reaching them. Second, the results are based on employee self-report questionnaires as we were interested in individual experiences, attitudes, and psychological states. Thus, to acquire accurate conclusions on the performance the construct, future research could benefit from using more objective assessments or a combination of perceptual and objective data.

Future research could extend our research in multiple ways, the results can be replicated for other types of service and manufacturing sector employees in Pakistan to improve the generalizability. Moreover, future studies can also utilize new methodological venues to analyze, for instance, the antecedents and effects of the vitality of the IT-sector employees, such as longitudinal (time-lag) studies. It would also allow these IT companies to be studied over time and provide greater insight into the relationships that exist amongst the variables. This study can be extended to contextual and adaptive performance. The area of deviant behaviors may also be worth exploring with the same settings. In addition, specifically for the measurement of employee job performance, it was found that female employees reported higher job performance as compared to male employees. It is suggested that a self-report measurement of job performance may be replaced with the supervisory assessment to obtain a better picture.

References

- Amjad, S. (2018). Emotional intelligence, organizational commitment and job performance in Pakistan. *Market Forces*, 13(1), 56-69.
- Campbell, J. P., & Wiernik, B. M. (2015). The modeling and assessment of work performance. *Annual Review of Organizational Psychology and Organizational Behavior*, 2, 47-74. <https://doi.org/10.1146/annurev-orgpsych-032414-111427>
- Carver, R., & Nash, J. (2008). *Doing Data Analysis with SPSS: Version 16.0*. India: Cengage Learning.
- Chiang, F., Low, A., & Collins, J. (2013). Two sets of business cards: Responses of Chinese immigrant women entrepreneurs in Canada and Australia to sexism and racism. *Cosmopolitan Civil Societies: An Interdisciplinary Journal*, 5(2), 63-83. <https://doi.org/10.5130/ccs.v5i2.3117>
- Clark, S. M., Boyer, C. M., & Corcoran, M. (1985). Faculty and institutional vitality in higher education. Faculty vitality and institutional productivity: Critical perspectives for higher education, 3-24.
- Cowen, E. L. (1994). The enhancement of psychological wellness: Challenges and opportunities. *American journal of community psychology*, 22(2), 149-179. <https://doi.org/10.1007/BF02506861>
- Dankoski, M. E., Palmer, M. M., Laird, T. F. N., Ribera, A. K., & Bogdewic, S. P. (2012). An expanded model of faculty vitality in academic medicine. *Advances in health sciences education*, 17(5), 633-649. <https://doi.org/10.1007/s10459-011-9339-7>
- Diener, E. (1984). Subjective well-being. *Psychological bulletin*, 95(3), 542-575. <https://doi.org/10.1037/0033-2909.95.3.542>
- Eagly, A. H. (2013). *Sex differences in social behavior: A social-role interpretation*. Hillside, NJ: Psychology Press. <https://doi.org/10.4324/9780203781906>
- Elahi, N. S., Abid, G., Arya, B., & Farooqi, S. (2020). Workplace behavioral antecedents of job performance: Mediating role of thriving. *The Service Industries Journal*, 40(11-12), 755-776. <https://doi.org/10.1080/02642069.2019.1638369>
- Finkelstein, J. (1996). Faculty vitality in higher education. Integrating research on faculty: Seeking new ways to communicate about the academic life of faculty, 71-80.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate Data Analysis. A Global Perspective* (7 ed.). Upper Saddle River, NJ: Prentice Hall. <https://doi.org/10.1016/j.jmva.2009.12.014>
- Halbesleben, J. R., Neveu, J.-P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the "COR" understanding the role of resources in conservation of resources theory. *Journal of Management*, 40(5), 1334-1364. <https://doi.org/10.1177/0149206314527130>
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American psychologist*, 44(3), 513-524. <https://doi.org/10.1037/0003-066X.44.3.513>
- Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior*, 5, 103-128. <https://doi.org/10.1146/annurev-orgpsych-032117-104640>
- Hosseini, Z. (2018). The impact of flexible contracts and job insecurity on vitality and productivity. (MS Thesis. Work and Organisational Psychology), Utrecht University Repository, Retrieved from dspace.library.uu.nl (5506832)
- Imam, S., Javed, T., & Sciences, S. (2019). Job security, organizational support and employee performance: the mediating role of employee satisfaction in medical sector of Pakistan. *International Journal of Academic Research in Business & Social Sciences*, 9(3), 1250-1268. <https://doi.org/10.6007/IJARBS/v9-i3/5793>
- Jackson, S. P. (2000). *An Environmental Assessment of Community College Faculty Satisfaction*. (Ed.D. dissertation), University of Central Florida, United States -- Florida, Retrieved from ProQuest Digital Dissertations database. (Publication No. AAT 9977815)
- Jamal, M. (2016). Job stress and job performance relationship in a challenge-hindrane model of stress: An empirical examination in the Middle East. *Pakistan Journal of Commerce Social Sciences*, 10(3), 404-418.
- Jex, S. M., & Britt, T. W. (2014). *Organizational psychology: A scientist-practitioner approach*. New York: John Wiley & Sons.
- Jiang, K., Liu, D., McKay, P. F., Lee, T. W., & Mitchell, T. R. (2012). When and how is job embeddedness predictive of turnover? A meta-analytic investigation. *Journal of applied psychology*, 97(5), 1077-1096. <https://doi.org/10.1037/a0028610>
- Kakar, S. (2002). Gender and police officers' perceptions of their job performance: An analysis of the relationship between gender and perceptions of job performance. *Criminal Justice Policy Review*, 13(3), 238-256.

<https://doi.org/10.1177/0887403402133003> <https://doi.org/10.1177/0887403402013003003>

- Malik, S. Z., & Macintosh, R. (2015). Role of Energizing Relationships in Creating Subjective Vitality and Goal Commitment in UK Academics. *Journal of Research*, 9(1), 62-74.
- Morrison, E. W. (1994). Role Definitions and Organizational Citizenship Behavior: The Importance of the Employee's Perspective. *Academy of Management Journal*, 37(6), 1543-1567. <https://doi.org/10.5465/256798> <https://doi.org/10.2307/256798>
- Motowidlo, S. J., Lievens, F., & Ghosh, K. (2018). Prosocial implicit trait policies underlie performance on different situational judgment tests with interpersonal content. *Human Performance*, 31(4), 238-254. <https://doi.org/10.1080/08959285.2018.1523909>
- Nienhuis, R. W. (1994). Satisfied Faculty and Involved Chairpersons: Keys to Faculty Retention. ASHE Annual Meeting Paper. ERIC Retrieved August 19th, 2019, from Association for the study of higher education (ASHE) <https://files.eric.ed.gov/fulltext/ED375735.pdf>
- Op den Kamp, E. M., Tims, M., Bakker, A. B., & Demerouti, E. (2018). Proactive vitality management in the work context: Development and validation of a new instrument. *European Journal of Work and Organizational Psychology*, 27(4), 493-505. <https://doi.org/10.1080/1359432X.2018.1483915>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, 88(5), 879. <https://doi.org/10.1037/0021-9010.88.5.879>
- Roth, P. L., Purvis, K. L., & Bobko, P. (2012). A meta-analysis of gender group differences for measures of job performance in field studies. *Journal of Management*, 38(2), 719-739. <https://doi.org/10.1177/0149206310374774>
- Rotundo, M., & Sackett, P. R. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of job performance: A policy-capturing approach. *Journal of applied psychology*, 87(1), 66-80. <https://doi.org/10.1037/0021-9010.87.1.66>
- Ryan, R. M., & Frederick, C. (1997). On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. *Journal of personality*, 65(3), 529-565. <https://doi.org/10.1111/j.1467-6494.1997.tb00326.x>
- Smith, D. K. (1978). Faculty Vitality and the Management of University Personnel Policies. *New Directions for Institutional Research*, 5(4), 1-16. <https://doi.org/10.1002/ir.37019782003>
- Sonnentag, S., Volmer, J., & Sychala, A. (2008). Job performance. *The Sage handbook of organizational behavior*, 1, 427-447. <https://doi.org/10.4135/9781849200448.n24>
- Soomro, S. K., & Hafeez, M. (2020). Workplace politics and employee's job performance: Mediating role of job stress, evidence from degree-awarding institutions of Sindh, Pakistan. *International Journal of Psychosocial Rehabilitation*, 24(04), 6436-6448. <https://doi.org/10.37200/IJPR/V24I4/PR2020453>
- Tummers, L., Steijn, B., Nevicka, B., & Heerema, M. (2018). The effects of leadership and job autonomy on vitality: Survey and experimental evidence. *Review of public personnel administration*, 38(3), 355-377. <https://doi.org/10.1177/0734371X16671980>
- Wegman, L. A., Hoffman, B. J., Carter, N. T., Twenge, J. M., & Guenole, N. (2018). Placing job characteristics in context: Cross-temporal meta-analysis of changes in job characteristics since 1975. *Journal of Management*, 44(1), 352-386. <https://doi.org/10.1177/0149206316654545>
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17(3), 601-617. <https://doi.org/10.1177/014920639101700305>
- Zeb, A., ur Rehman, F., Imran, M., Ali, M., & Almansoori, R. G. (2020). Authentic leadership traits, high-performance human resource practices and job performance in Pakistan. *International Journal of Public Leadership*, 16(3), 299-317. <https://doi.org/10.1108/IJPL-02-2020-0011>
- Chong, C. Y., & Lee, T. S. (2017). Employee retention and job performance attributes in private institutions of higher education. *International Journal of Business and Administrative Studies*, 3(5), 158-165. <https://doi.org/10.20469/ijbas.3.10001-5>
- Nucharee, S., & Teeradej, P. (2019). Roles of expectancy on employee engagement and Job performance. *Journal of Administrative and Business Studies*, 5(2), 88-98. <https://doi.org/10.20474/jabs-5.2.3>