



Research Article

Does polychronicity affect employees' performance? The mediating effect of employees' engagement

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ABSTRACT

This study integrated the person-job-fit theory to look into the association between polychronicity and employees' performance mediated through employees' engagement in education sector. By applying, random sampling, this study collected primary data from the teachers of Government colleges (N=187), through survey questionnaire. The results indicated the main effect of polychronicity and indirect effect through employee's engagement on employees' performance (in-role behaviour). Findings suggested a positive and significant relationship of Polychronicity with employees' performance. The mediating role of employee's engagement in the association between polychronicity and employees' performance (in-role-behaviour) was also strongly supported by the results. Overall, this study contributed by established employees' engagement as the missing link in the relationship between polychronicity and employees' performance (in-role behaviour).

Keywords: *Polychronicity; Employees' Performance; Employees' Engagement; Person-Job Fit Theory*

1. INTRODUCTION

In a general context, it is the desire of every organization to have employees who do their job well. Good performance of employees enhances not only the productivity of the organization, but the overall success of the organization. Employees' performance is defined as the in-role behaviour or employees' performance behaviour that is visibly explained in employees's job descriptions, with the purpose of demonstrating the responsibilities and the roles allocated to them in the workplace, for that the workers have been employed and paid for (Organ, 2018). Extensive research has been done to enhance employees' performance in the work place and concurrent research has found many potential predictors such as servant leadership (Kumar et al., 2022); organizational politics and job stress (Khan et al., 2022); loyalty and motivation (Kettapan et al., 2022); Job Stress, Work conflict and Workload (Paramita & Suwandana, 2022); stress (Okikiola, 2022). Based on person-job fit theory (Kristof, 1996), this study has focused on the role of polychronicity to predict the employees' performance. Polychronicity is the degree to which people have a preference to engage in many tasks all together (Bluedorn, 1998). Person-job fit theory looks at the relationship between a person's characteristics and the job that an employee is performing at the workplace (Kristof Brown et al., 2005). There are two domains of this theory. The first domain of person-job fit is termed as demands-abilities fit which determine

the compatibility or the similarity of the employees' skills, knowledge as well as the abilities with the job requirements. While, the second domain of this theory is termed as supplies-values fit which determines if the desires, needs or preferences of employees are well-matched with the task or job they perform at workplace (Kristof Brown, et al., 2005). Based on person-job fit theory (Kristof, 1996), we argue that the polychronic employees are multitasking in nature and they prefer to carry out multiple tasks simultaneously and such multitasking values can very handy to enhance their performance in the workplace. Further, such influential impact of polychronicity on employees' performance has been found consistently (Arndt et al., 2006; Asghar et al., 2021; Grobelna, 2021; Kantrowitz et al., 2012). Therefore, the point of departure is to investigate the aforesaid relationship in context of current study. Further, the concept of polychronicity offers the tacit mechanism through which it enhances employees' performance. As polychronicity is the degree to which people have a preference to engage in many tasks all together (Bluedorn, 1998), therefore, work engagement is the process through which it enhances employees' performance. According to Poposki and Oswald (2010), in order to keep themselves away from boredom and enhance their performance, employees engage themselves in various tasks. Schaufeli et al. (2002), defined employees' engagement as "a constructive, fulfilling, job-related state of mind that is illustrated by dedication, vigor and absorption". It is found from the various studies that there is an extensive contribution of work engagement towards the achievement of in-role performances of the employees (Bakker & Bal, 2010; Bakker & Xanthopoulou, 2009; Neuber et al., 2022). Rich et al. (2010), suggested that engaged employees put in their physical, cognitive as well as emotional energies with the purpose of showing absolute performance of a given role. Although, the effect of polychronicity on job performance and process through some mediators i.e., personal accomplishments (Grobelna, 2021) has been investigated. Job engagement has also been tested as a mediator between polychronicity and work related outcomes i.e., creativity (Waheed et al., 2021); turnover intentions (Asghar, et al., 2021) but the process or the mechanism through which polychronicity may have the impact on employees' performance through employees' engagement, is hardly discussed. Therefore, this research has proposed the influential effect of polychronicity on employees' performance (in-role-behaviour) through the mechanism of employees' engagement which has rarely been studied. Therefore, it is proposed that when employees have a natural fit in the job or task they perform, they will be more energetic, enthusiastic as well as strongly involved in their work which will lead to their work engagement by investing their physical, cognitive as well as emotional energies and consequently, in turn to their high performance. This study's contributions can be applied very effectively to several jobs with high work demands such as bankers, nurses, doctors and teachers. Polychronicity can be considered as the precursor for employees' engagement and engaged employees are likely to fulfill their job requirements effectively. Overall, based on person job fit theory (Kristof, 1996), this study fill in the gap by establishing work engagement as the process through which employees with polychronic characteristics show enhanced performance in the workplace.

2. LITERATURE REVIEW

The concept of polychronicity is based on the premise that employees prefer to engage in many tasks all together (Bluedorn, 1998). Individuals with polychronic traits tend to involve in two or more tasks at times and they consider this as the best way of doing things. Such as an individual listening music during a morning walk. Therefore, it can be derived that polychronicity is not considered as disruption, rather a way of doing things in routine. Further, according to Bluedorn (1999) and Arndt, et al. (2006), there are two types of polychronicity i.e., multi-tasking and task switching. Multitasking refers to when polychronic employee is implicated in numerous tasks simultaneously and task-switching refers to when polychronic employee be in motion between numerous tasks in a given block of time. Several studies have found polychronicity as the significant predictor of many work related outcomes i.e., turnover intentions (Andriani et al., 2021); job-affective well-being (Xiaolong et al., 2021); firm's innovation (Chen, 2022); employee creativity (Shao et al., 2022); Role of Conflict and Procrastination (Zhijie et al., 2022). In a working environment, polychronicity is also found as the significant predictor of employees' performance (Arndt, et al., 2006; Asghar, et al., 2021; Conte & Gintoft, 2005; Grobelna, 2021; Howard & Cogswell, 2022; Kantrowitz, et al., 2012). Further, following the premises of person-job fit theory (Kristof, 1996), we argue that multitasking traits of teachers can guide them to find compatibility with their job and they are likely to show enhanced performance in the workplace. Following these empirical studies and framework of person-job fit theory (Kristof, 1996), we argue that the multitasking and task switching values of polychronic employees may fit well with their job requirements and can help them to perform their job effectively. Therefore, it is proposed that:

H1: Polychronicity has a significant positive effect on employees' performance (in- role - behaviour).

Although, polychronicity is found as the significant predictor of employees' performance but what is the process involved in this relationship needs to be unpacked. The concept of polychronicity itself offers the mechanism through which it enhances employees' performance. As polychronicity is the degree to which people have a preference to engage in many tasks all together (Bluedorn, 1998). Therefore, work engagement is the process through which it enhances employees' performance. Cooper-Thomas et al. (2014), pointed out that multi-tasking keeps polychronic employees engaged and in turn they show efficiency in their performance. Several studies have found the significant effect of polychronicity on employees' engagement (Asghar, et al., 2021; Karatepe et al., 2013; Waheed, et al., 2021). Further, several studies have also observed that employees' engagement results in greater employees' performance (Bakker & Bal, 2010; Kim et al., 2013; Neuber, et al., 2022). Apart from these effects of polychronicity on employees' engagement and further the effects of employees' engagement on employees performance, the effect of polychronicity on job performance through some mediators i.e., personal accomplishments (Grobelna, 2021) has been investigated. Job engagement has also been tested as a mediator between polychronicity and work related outcomes i.e., creativity (Waheed, et al., 2021); turnover intentions (Asghar, et al., 2021) but the process or the

mechanism through which polychronicity may have the impact on employees' performance through employees' engagement, is hardly discussed. Therefore, this research has proposed the influential effect of polychronicity on employees' performance (in-role-behaviour) through the mechanism of employees' engagement which has barely been studied. Thus, based on these studies and on the framework of person-job fit theory (Kristof, 1996), it is proposed that due to the natural fit in the jobs, polychronic-oriented employees will get themselves strongly involved in their work to experience high work engagement and in turn to demonstrate improved performance in the workplace. Therefore, it is proposed that:

H2: Employees' engagement will mediate the positive relationship between polychronicity and employees' performance (in-role-behaviour).

3. MATERIALS AND METHODS

3.1. SAMPLE

We collected primary data through the survey questionnaire from teaching staff of government colleges in the city area of district Khairpur Mir's, Sindh province of Pakistan.

Although, link between polychronicity and employees' performance has been investigated in various categories of employees i.e., bankers (Bluedorn, et al., 1999); hotel employees (Asghar, et al., 2021; Grobelna, 2021); health care staff (Waheed, et al., 2021; Xiaolong, et al., 2021) many others but teachers have rarely been investigated. Therefore, it will be interested to investigate and validate this link in the education sector. Teachers need to do multitasking i.e., oral classes, assignments, projects, online classes), therefore, polychronic values can be very vital for their effective performance. If they possess these values of multitasking and task switching then it can help them to manage the variety of tasks simultaneously. Therefore, at least for this reason, it can be useful to examine the effect of their polychronic skills on their performance. The total population for this study consisted of 250 teachers. According to sample size table of Saunders et al. (2015), at confidence level of 95 percent, the sample size of 132 is considered as the representative of the total population of 250. By applying simple random sampling technique, we selected a sample size of 187 for the current study. The advantage of applying random sampling is that it is a type of probability sampling technique which provides equal chances to every element in the population of being selected and such objective way can be helpful to avoid bias while selecting sample (Aczel & Sounderpandian, 1999). Table 1 shows sampling details.

Table 1. Sample Size

College Name	Total Number of Teachers	Sample Selected
Government Pakistan Degree College, Khairpur	24	21
Government Superior Science College, Khairpur	52	49
Government Mumtaz College, Khairpur	43	39
Government College for Women, Khairpur	68	64
Government Degree College Theri, Khairpur	16	14
Total	203	187

3.2. MEASURES

All the measures are measured through a five point Likert type of survey questionnaire adopted from various reliable and validated studies. Polychronicity is measured through the 10 items' scale, called Inventory of Polychronic values, adopted from Bluedorn et al. (1999). Employees' engagement is measured through a 9 items' scale adopted from Schaufeli et al. (2006). Employees' performance (in-role-behaviour) is measured through a 7 items' scale, adopted from Williams & Anderson (1991).

3.3. ANALYSIS TECHNIQUES

This study used statistical package of social sciences (SPSS) 20 for the purpose of data analysis. To avoid the blunders in data and make them accurate, first, initial data screening tests (Pallant, 2020) were performed, earlier than testing the postulated hypotheses. Mediation analysis was conducted through process macro, following the simple mediation procedure of Hayes (2012); Preacher & Hayes (2004); Rucker, et al. (Rucker et al., 2011) with 5000 bootstraps. Process model 4 is used for simple mediation analysis. According to this procedure, in order to find the mediating or indirect effect, the effect of independent variable (i.e., polychronicity) on mediating variable (i.e., employees' engagement) and in turn the effect of mediating variable (i.e., employees' engagement) on dependent variable (i.e., employees' performance) should be significant. Further, mediation analysis provides three effects i.e., total effect denoted by "C", direct effect, denoted by "C'" and mediating or indirect effect, denoted by "M". The sum of direct effect (C') and indirect effect (M) (C'+M) are equal to total effect (C). Further, they argued that it is not necessary to find significant direct or total effect. In order to hold mediation, the indirect effect should be significant.

4. RESULTS

Prior to testing the postulated hypotheses, descriptive statistics and reliability analysis tests have been conducted. Reliability analysis was conducted to check the internal consistency of the items used in the questionnaire. Based, on five point Likert type of scale, mean results showed the existence of polychronic values among the teachers. Existence of employees' engagement was also found. Further, employees were also found to demonstrate their in-role behaviour in the work place. The Cronbach's Alpha values for variables were well within the appropriate range of .7 (George & Mallery, 2011). Table 2 shows the reliability and descriptive statistics results.

Table 2. Mean Standard Deviation and Reliability Analysis

Variables	Mean	SD	Cronbach's Alpha
Polychronicity	3.930	.780	.910
Employees' Engagement	3.750	.790	.800
In-Role Behaviour	4.190	.490	.700

Table 3 shows the correlations among the variables. The results showed that the correlations between polychronicity and employees' engagement and between polychronicity and employees' performance (in-role-behaviour) were positive and

significant, at the level of $p = <.01$ which are consistent with the propositions established in this study. Further, the correlation between employees' engagement and employees' performance was also positive and significant. The effect of control variables (i.e., job title, gender, age, experience, and education) on dependent variable (i.e., employees' performance) as well as on mediating variable (i.e., employees' engagement) was insignificant. Therefore, these were not included in further analysis.

Table 3. Correlations

Variables	1	2	3	4	5	6	7	8
1.Job Title	1							
2.Gender	-.110	1						
3.Age	.900**	-.190**	1					
4.Experience	.940**	-.170*	.960**	1				
5.Education	-.170*	-.190**	-.110	-.110	1			
6. polychronicity	.020	.140	.040	.060	.080	1		
7. Employee Engagement	.100	.020	.110	.100	.040	.530**	1	
8.In-Role Behaviour	.130	.120	.130	.120	-.050	.470**	.620**	1

Note: N= 187, **= p -value<0.01 level

The regression results showed that the effect of polychronicity on employees' performance (in-role-behaviour) was positive and significant ($B = .29$, $p < .05$). On the whole, model explained around 22 per cent of significant variance in employees' performance (in-role-behaviour). Thus, hypothesis 1 was fully supported as given in Table 4.

Table 4. Effect of Polychronicity on Employees' Performance (In-role-behaviour)

Independent Variable	B	SE	Lower	Upper	p-value
Polychronicity	.290	.040	.210	.370	.000

N=187, S.E= Standard Error

The results from meditational analysis demonstrated the significant indirect effect of polychronicity on employees' performance (in-role-behaviour) through employees' engagement ($B = .17$, $SE = .04$, $p < .05$). Hence, hypothesis 2 was fully supported. The results are presented in table 5.

Table 5. Mediating Effect of Employees' Engagement in the Relationship between Polychronicity and Employees' Performance (In-role Behavior)

Effect	B	SE	Lower	Upper	p-value
Total Effect	.29	.04	.21	.37	.00
Direct Effect	.12	.04	.04	.20	.00
Indirect Effect	.17	.04	.09	.26	.00

Note: Biased Corrected 95% Confidence Intervals with 5000 bootstrap were used; N=187, S.E= Standard Error

Fig. 1 shows the results' summary as follows:

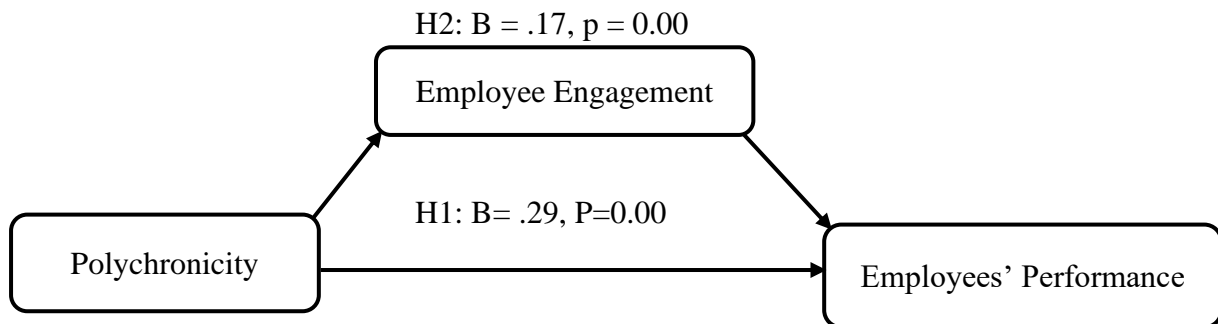


Fig. 1. Results Summary

5. DISCUSSION

This study demonstrated the significant effect of polychronicity on teachers' performance (in-role behaviour), as proposed. These results are consistent with the studies testing the aforesaid relationship (Arndt, et al., 2006; Asghar, et al., 2021; Grobelna, 2021; Kantrowitz, et al., 2012) and with the premises of person-job fit theory (Kristof, 1996). Moreover, this study established the significant indirect effect of polychronicity on in-role behaviour of employees through mediation of employees' engagement, as proposed. Although, the effect of polychronicity on job performance and process through some mediators i.e., personal accomplishments (Grobelna, 2021) has been investigated. Job engagement has also been tested as a mediator between polychronicity and work related outcomes i.e., creativity (Waheed, et al., 2021); turnover intentions (Asghar, et al., 2021) but through this study, we have unpacked the tacit mechanism of work engagement through which employees with polychronic values keep them engaged and in turn to demonstrate their work performance role effectively.

6. CONCLUSION

The contributions made by this study and implications are discussed;

6.1. THEORETICAL CONTRIBUTIONS

This study incorporated the role of person-job fit theory (Kristof, 1996) in the workplace. This theory focuses on characteristics of a person required to perform job. This study has focused on the role of polychronic characteristics of a person while performing his/ her job. We proposed and validated that the polychronic employees are multi-tasking in nature and they prefer to carry out multiple tasks simultaneously and such multitasking values can very handy to enhance their performance in the workplace.

6.2. MANAGERIAL IMPLICATIONS

This study highlighted the role of employees with polychronic value in the workplace. The results of this study suggested that the multi-tasking values can be very handy for the teachers to keep them engaged and in turn such engaged teachers can fulfill their job with dedication, vigor and absorption. Teachers agreed to perform two or more tasks simultaneously and they used to switch from one task to another task in routine work. Such polychronic traits were found to influence their engagement in the workplace and in turn

employees' engagement significantly improved their performance in the workplace. Therefore, it is purposed to encourage polychronic values in the workplace while hiring teachers. Specifically, in the context of current study, our proposed and validated model can be applied very effectively to several jobs with high work demands such as bankers, nurses, doctors and many more. Therefore, polychronicity can be considered as the precursor for employees' engagement and engaged employees are likely to fulfill their job requirements effectively.

6.3. LIMITATIONS AND FUTURE DIRECTIONS

The sample size which looked small. Therefore, sample size may be increased by testing the model in other areas. This study was performed mainly in the context of the education sector, government colleges of city area of Khairpur Mir's, Sindh, Pakistan. Therefore, data has been gathered only from teaching staff of government colleges. Consequently, the results are restricted towards government college teacher only. Therefore, future research should may include professional from various other public and private sector organisations. If employees are given task variety in the workplace then it can match well with their polychronic values and may multiply the yield. Therefore, task variety can be used as the moderator in the current study model to bring more additional insights.

Author Contributions:

Conceptualization, Pathan and Kumar; methodology, Kumar and Maharvi; software, Kumar and Pathan; validation, Kumar and Maharvi; formal analysis, Pathan and Kumar; investigation, Pathan and Maharvi; resources, Pathan and Kumar; data curation, Pathan and Kumar; writing—original draft preparation, Pathan, Kumar, Maharvi; writing—review and editing, Pathan, Kumar, Maharvi; visualization, Pathan, Kumar, Maharvi.; supervision, Kumar; project administration, Kumar; funding acquisition, Pathan, Kumar, and Maharvi. All authors have read and agreed to the published version of the manuscript.

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Conflicts of Interest:

There were no conflicts of interest in this research.

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- Aczel, A. D., & Sounderpandian, J. (1999). *Complete business statistics*: Irwin/McGraw Hill Boston, MA. <https://worldcat.org/title/1006029669>.
- Andriani, R., Disman, D., Ahman, E., & Santoso, B. (2021). Polychronicity: Model and analysis of conditional process toward employee turnover intentions. *Journal of Innovation in Business and Economics*, 5(01), 1-14. doi: <https://doi.org/10.22219/jibe.v5i01.15867>
- Arndt, A., Arnold, T. J., & Landry, T. D. (2006). The effects of polychronic-orientation upon retail employee satisfaction and turnover. *Journal of Retailing*, 82(4), 319-330. doi: <https://doi.org/10.1016/j.jretai.2006.08.005>
- Asghar, M., Tayyab, M., Gull, N., Zhijie, S., Shi, R., & Tao, X. (2021). Polychronicity, work engagement, and turnover intention: The moderating role of perceived organizational support in the hotel industry. *Journal of Hospitality and Tourism Management*, 49, 129-139. doi: <https://doi.org/10.1016/j.jhtm.2021.09.004>
- Bakker, A. B., & Bal, M. P. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology*, 83(1), 189-206. doi: <https://doi.org/10.1348/096317909X402596>
- Bakker, A. B., & Xanthopoulou, D. (2009). The crossover of daily work engagement: Test of an actor-partner interdependence model. *Journal of Applied Psychology*, 94(6), 1562. doi: <https://psycnet.apa.org/buy/2009-21033-015>
- Bluedorn, A. C. (1998). An interview with anthropologist Edward T. Hall. *Journal of Management Inquiry*, 7(2), 109-115. doi: <https://doi.org/10.1177/105649269872003>
- Bluedorn, A. C., Kalliath, T. J., Strube, M. J., & Martin, G. D. (1999). Polychronicity and the Inventory of Polychronic Values (IPV): The development of an instrument to measure a fundamental dimension of organizational culture. *Journal of Managerial Psychology*, 14(3/4), 205-231. doi: <https://doi.org/10.1108/02683949910263747>
- Chen, J. (2022). A juggling act: CEO polychronicity and firm innovation. *The Leadership Quarterly*, 33(3), 101380. doi: <https://doi.org/10.1016/j.leaqua.2019.101380>
- Conte, J. M., & Gintoft, J. N. (2005). Polychronicity, big five personality dimensions, and sales performance. *Human Performance*, 18(4), 427-444. doi: https://doi.org/10.1207/s15327043hup1804_8
- Cooper-Thomas, H. D., Paterson, N. L., Stadler, M. J., & Saks, A. M. (2014). The relative importance of proactive behaviors and outcomes for predicting newcomer learning, well-being, and work engagement. *Journal of Vocational Behavior*, 84(3), 318-331. doi: <https://doi.org/10.1016/j.jvb.2014.02.007>
- George, D., & Mallery, P. (2011). *SPSS for windows step by step: A simple study guide and reference, 17.0 update, 10/e*: Pearson Education India. <https://worldcat.org/title/818862603>.
- Gobelna, A. (2021). Hotel employees' individual characteristics and their service outcomes: the critical role of polychronicity. *European Research Studies Journal*, 24(2), 28-49. doi: <https://www.um.edu.mt/library/oar/handle/123456789/81432>
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from <http://www.afhayes.com/public/process2012.pdf>.

- Howard, M. C., & Cogswell, J. E. (2022). A meta-analysis of polychronicity: Applying modern perspectives of multitasking and person-environment fit. *Organizational Psychology Review*, 0(0), 1-33. doi: <https://doi.org/10.1177/20413866221143370>
- Kantrowitz, T. M., Grelle, D. M., Beaty, J. C., & Wolf, M. B. (2012). Time is money: Polychronicity as a predictor of performance across job levels. *Human Performance*, 25(2), 114-137. doi: <https://doi.org/10.1080/08959285.2012.658926>
- Karatepe, O. M., Karadas, G., Azar, A. K., & Naderiadib, N. (2013). Does work engagement mediate the effect of polychronicity on performance outcomes? A study in the hospitality industry in Northern Cyprus. *Journal of Human Resources in Hospitality & Tourism*, 12(1), 52-70. doi: <https://doi.org/10.1080/15332845.2013.723266>
- Kettapan, K., Suphattanakul, O., Sui, J. M., & Hussain, S. (2022). Structure Equation Model of Causal Factors Affecting Employees' Performance in Modern Trade Organization. *Planning*, 17(4), 1141-1146. doi: <https://doi.org/10.18280/ijstdp.170411>
- Khan, H., Abbas, J., Kumari, K., & Najam, H. (2022). Corporate level politics from managers and employees perspective and its impact on employees' job stress and job performance. *Journal of Economic and Administrative Sciences*(ahead-of-print). doi: <https://doi.org/10.1108/JEAS-12-2021-0246>
- Kim, W., Kolb, J. A., & Kim, T. (2013). The relationship between work engagement and performance: A review of empirical literature and a proposed research agenda. *Human Resource Development Review*, 12(3), 248-276. doi: <https://doi.org/10.1177/1534484312461635>
- Kristof, A. L. (1996). Person organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel psychology*, 49(1), 1-49. doi: <https://doi.org/10.1111/j.1744-6570.1996.tb01790.x>
- Kristof Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta analysis OF person–job, person–organization, person–group, and person–supervisor fit. *Personnel psychology*, 58(2), 281-342. doi: <https://doi.org/10.1111/j.1744-6570.2005.00672.x>
- Kumar, A., Gul Pathan, T., & Rani Shaikh, H. (2022). Servant Leadership as Impetus for Teachers' Organisational Citizenship and In-role Behaviours: The Mediation of Felt Obligation. *International Journal of Organizational Leadership*, 11(1), 44-54. doi: <http://dx.doi.org/10.33844/ijol.2022.60618>
- Neuber, L., Englitz, C., Schulte, N., Forthmann, B., & Holling, H. (2022). How work engagement relates to performance and absenteeism: a meta-analysis. *European Journal of Work and Organizational Psychology*, 31(2), 292-315. doi: <https://doi.org/10.1080/1359432X.2021.1953989>
- Okikiola, L. (2022). Effect of Stress on Employees' Performance in Guaranty Trust Bank: a Qualitative Study. *International Journal of Development and Public Policy*, 1(8), 63-81. doi: <https://journalzone.org/index.php/bjgesd/article/view/8>
- Organ, D. W. (2018). Organizational citizenship behavior: recent trends and developments. *Annual Review of Organizational Psychology and Organizational Behavior*, 80, 295-306. doi: <https://doi.org/10.1146/annurev-orgpsych-032117-104536>
- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (7 ed.): Routledge. <https://doi.org/10.4324/9781003117452>.
- Paramita, N. K. S., & Suwandana, I. G. M. (2022). Effect of Job Stress, Work Conflict, and Workload on Employees' Performance. *European Journal of Business and Management Research*, 7(4), 125-128. doi: <https://www.ejbmr.org/index.php/ejbmr/article/view/1508>
- Poposki, E. M., & Oswald, F. L. (2010). The multitasking preference inventory: Toward an improved measure of individual differences in polychronicity. *Human Performance*, 23(3), 247-264. doi: <https://doi.org/10.1080/08959285.2010.487843>

- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior research methods, instruments, & computers*, 36(4), 717-731. doi: <https://doi.org/10.3758/BF03206553>
- Rich, B. L., Lepine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of management journal*, 53(3), 617-635. doi: <https://doi.org/10.5465/amj.2010.51468988>
- Rucker, D. D., Preacher, K. J., Tormala, Z. L., & Petty, R. E. (2011). Mediation analysis in social psychology: Current practices and new recommendations. *Social and Personality Psychology Compass*, 5(6), 359-371. doi: <https://doi.org/10.1111/j.1751-9004.2011.00355.x>
- Saunders, M., Lewis, P., & Thornhill, A. (2015). *Research Methods for Business Students* (7 ed.): Pearson Education. <https://worldcat.org/title/1001708543>.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, 66(4), 701-716. doi: <https://doi.org/10.1177/0013164405282471>
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3, 71-92. doi: <https://doi.org/10.1023/A:1015630930326>
- Shao, J., Cherian, J., Xu, L., Zaheer, M., Samad, S., Comite, U., . . . Badulescu, D. (2022). A CSR Perspective to Drive Employee Creativity in the Hospitality Sector: A Moderated Mediation Mechanism of Inclusive Leadership and Polychronicity. *Sustainability*, 14(10), 6273. doi: <https://doi.org/10.3390/su14106273>
- Waheed, J., Jun, W., Yousaf, Z., & Hussain, H. (2021). Towards Employees Creativity in the Healthcare Sector: Investigating the Role of Polychronicity, Job Engagement, and Functional Flexibility. *Healthcare*, 9(837). doi: <https://doi.org/10.3390/healthcare9070837>
- 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. doi: <https://doi.org/10.1177/014920639101700305>
- Xiaolong, T., Gull, N., Asghar, M., & Jianmin, Z. (2021). The relationship between polychronicity and job-affective well-being: The moderator role of workplace incivility in healthcare staff. *Work*(Preprint), 1-11. doi: 10.3233/WOR-205286
- Zhijie, S., Gull, N., Asghar, M., Sarfraz, M., Shi, R., & Rafique, M. A. (2022). Polychronicity, Time Perspective, and Procrastination Behavior at the Workplace: An Empirical Study. *Anales de psicología*, 38(2), 355-364. doi: <https://doi.org/10.6018/analesps.427401>