The Effect of Role Ambiguity and Organizational Justice on Cyberloafing with Job Stress as a Mediation Variable

Nindy Elsa Megaputri [1*], Lieli suharti[2] iD

[1,2] Universitas Kristen Satya Wacana, Salatiga, Indonesia

A R T I C L E   I N F O

A B S T R A K

Perkembangan teknologi khususnya internet sangat membantu dalam hal apapun termasuk dalam hal pekerjaan. Terlepas dari banyak manfaat internet, penggunaannya yang meluas di tempat kerja secara tidak sengaja telah membentuk pola baru perilaku menyimpang yang disebut perilaku cyberloafing. Tujuan dari penelitian ini adalah untuk menganalisis pengaruh ambiguitas peran dan keadilan organisasi terhadap stres kerja dan cyberloafing. Metode penelitian yang digunakan adalah kuantitatif dengan menggunakan kuesioner untuk pengumpulan data. Sampel sebanyak 104 responden yang diambil dengan teknik accidental sampling. Instrumen yang digunakan dalam penelitian ini adalah kuesioner berupa google form yang disebarkan melalui media sosial, email, dan lain-lain. Teknik analisis data penelitian ini menggunakan Partial Least Square (PLS) dengan software Smart-PLS sebagai alat analisis. Berdasarkan hasil penelitian dapat disimpulkan bahwa variabel ambiguitas kerja dan keadilan organisasi berpengaruh terhadap stres kerja. Ambiguitas peran dan keadilan organisasi juga ditemukan mempengaruhi perilaku cyberloafing. Namun, hipotesis penelitian tentang stres kerja memediasi pengaruh ambiguitas peran dan keadilan organisasi pada cyberloafing tidak didukung dalam penelitian ini.

A B S T R A C T

The development of technology, especially the internet, is beneficial in any case, including work. Despite the many benefits of the internet, its widespread use in the workplace has inadvertently formed a new pattern of deviant behavior called cyberloafing. This study aimed to analyze the effect of role ambiguity and organizational justice on job stress and cyberloafing. The research method used is quantitative by using a questionnaire for data collection. A sample of 104 respondents was taken by accidental sampling technique. The instrument used in this research is a questionnaire in the form of a google form distributed through social media, email, and others. The data analysis technique of this research uses Partial Least Square (PLS) with Smart-PLS software as an analytical tool. Based on the results of the study, it can be concluded that the variables of work ambiguity and organizational justice affect work stress. Role ambiguity and organizational justice were also found to influence cyberloafing behavior. However, this study did not support the research hypothesis about job stress mediating the effect of role ambiguity and organizational justice on cyberloafing.

1. INTRODUCTION

The development of sophisticated technology as we feel today, one of which is the internet. The development of technology, especially the internet, is very helpful in any case, including in terms of work (Amaoge & Ejike, 2016; Malik et al., 2022; Muehlethaler & Albert, 2021). Despite the many benefits of the internet, its widespread use in the workplace has inadvertently formed a new pattern of deviant behavior called cyberloafing behavior (Koay et al., 2017; H.-Y. Tsai, 2022). The use of the internet has both positive and negative impacts on workers. The positives can be sending files via email, doing work-related activities via the internet, etc. The negative is when workers do cyberloafing. Cyberloafing is the behavior of using the internet provided by a company that is used for personal purposes or outside of work interests during working hours (V. K. G. Lim & Chen, 2012).

The negative impact of cyberloafing is that employees can neglect and even ignore their duties and responsibilities so that their tasks are not completed or if they are completed most of the results are

*Corresponding author.
E-mail: Elsaputriwae@gmail.com (Nindy Elsa Megaputri)

not optimal (Lonteng et al., 2019; Restubog et al., 2011). Another negative impact for the organization is that if employees accidentally download some illegal software or unknown attachments from a malicious web that can cause security breaches, there is a risk of company information being stolen or hacked by other parties (V. K. G. Lim & Chen, 2012). Cyberloafing behavior in the workplace will have an impact on reduced productivity, making employees neglect their duties due to increasingly modern technology without the need to go in and out of the room, look active during office hours, and are in front of the computer (Blanchard & Henle, 2008). They are not working, but instead engage in cyberloafing (P. K. Lim et al., 2021).

Cyberloafing behavior often arises due to work stress (Colacion-Quiros & Gemora, 2016; Derin & Gökçe, 2016). Stress is triggered by various reasons, one of them is role ambiguity. In the situation when a person does not understand what his authority, does not understand what is expected of him, role ambiguity arises and shows that ambiguity has a positive effect on cyberloafing (Askew et al., 2014; Nydia & Pareke, 2019). Ambiguity has a positive effect on cyberloafing because there is ambiguity for employees about what role to play concerning the duties and responsibilities related to their position (Lonteng et al., 2019). This role ambiguity arises because the information obtained is not fulfilled to complete the tasks and responsibilities given (Wiguna, 2014). Previous study examined the relationship between perceived organizational justice and cyberloafing and found that organizational justice had a negative effect on cyberloafing (Öğüt et al., 2013). Other study showed results that organizational justice has a negative effect on work stress (Halipah, 2015). Praditya and Putra (2016) found the effect of organizational justice on job satisfaction and organizational commitment. Likewise, another research also showed that organizational justice affects on cyberloafing (Rahaei & Salehzadeh, 2020). Other research stated that organizational justice has a negative effect on cyberloafing (Dede & Rinnanik, 2020). From the various studies above which gave contradictory results, this study will re-examine the influence between variables.

Organizational justice is a reflection of the role of justice on employee perceptions. Organizational justice is the degree to which an individual feels treated equally in the organization where he works (Farndale et al., 2022; Rahman & Karim, 2022). Organizational justice can be interpreted as a person's fair perception of the decisions taken by his superiors (Fein et al., 2021; Le & Pan, 2021). Organizational justice is a perception where employees feel they are treated fairly at work. Organizational justice relates to employees' perceptions of whether they have been treated fairly at work or otherwise (Oubrich et al., 2021; Unterhitzenberger & Moeller, 2021). Organizational justice can also be interpreted as a concept that arises by questioning justice in organizational life. It relates to working conditions and relationships that create confidence in workers that they are treated fairly. Organizational justice is formed from three perceptions of justice: procedural justice, distributive justice, and interactional justice (Matteson et al., 2021; Shimamura et al., 2021).

Job satisfaction is influenced by procedural justice because employee satisfaction can be created by taking and distributing a decision or company policy. Employees react to the results and the processes by which they get those results (Gluschkoff et al., 2021; Matteson et al., 2021). Distributive justice describes the consistent allocation of results. A person will get results and rewards from the contributions made. Distributive justice is related to the perception of justice that comes from the results received by a person (Hootegem, 2022; Leineweber et al., 2020). Interactional justice relates to the justice that a person feels when treated fairly by others, related to the individual's relationship with his superior (Dijke et al., 2019; Marcucci, 2021). This study aimed to examine the effect of role ambiguity and organizational justice on cyberloafing with job stress as a mediating variable. This study can add to the new literature on the effect of role ambiguity and organizational justice on cyberloafing with job stress as a mediating variable. In addition, it is expected to be a reference for the development of science. The benefits of this research can be used as consideration for companies in making decisions.

2. METHODS

The research method used was a type of quantitative approach. This research was conducted to determine the causal relationship between variables. The population in this study were Civil Servants who work in Salatiga. The sample was 104 respondents who were taken using the accidental sampling technique. Characteristics of respondents consisted of 51% of male respondents and 49% of female respondents. The majority of respondents were between 17-35 years old (92%). The instrument used in this research was a questionnaire in the form of a google form which is distributed through social media, email, and others. The questions in the questionnaire used a Likert scale measurement scale. Likert scale contained 5 (five) options: Strongly Disagree (STS) was given a score of 1, Disagree (TS) was given a score

of 2, Neutral (N) was given a score of 3, Agree (S) was given a score of 4, and Strongly Agree (SS)) was given a score of 5.

The measurement of the concept used the existing literature in previous research. The measurement of the concept of Cyberloafing used a scale developed by Henle and Blanchard (2008), which consisted of 5 indicators, they were: reading online news, shopping online, e-mail and social media activities, downloading music/movies, and interacting in chatrooms. The concept of role ambiguity was measured using a scale, which consisted of 4 dimensions, they were ambiguity of responsibility, conflicting personal beliefs in carrying out work duties, unclear demands of superiors, and unclear scope of work (Herdiati et al., 2015). The concept of organizational justice is measured using a scale which consisted of the dimensions of distributional justice, procedural justice, interpersonal justice, and informational justice (Gibson et al., 2011). The concept of stress adopted the scale used in Latif Salleh, Bakar, and Kok Keong (2008) research which consisted of dimensions of pressure at work, workload, relationships at work, career opportunities, and work climate. The data analysis technique of this research used Partial Least Square (PLS) with Smart-PLS software as an analytical tool. PLS was chosen because it was a powerful analytical technique. It did not contain many assumptions of a normal distribution, the sample did not have to be large. PLS was a non-parametric method that can be used to analyze the interest between variables in a complex manner with a theoretical basis.

3. RESULTS AND DISCUSSIONS

Results

The outer Analysis Model specifies the relationship between latent variables and their indicators or it can be said that the outer model defines how each indicator relates to its latent variables. Tests were performed on the outer model.This test is conducted to prove that the statements on each latent variable in this study can be understood by the respondents in the same way as intended by the researcher. Convergent validity can be accepted if the loading factor value is> 0.6. The results of convergent validity test are presented in Figure 1.
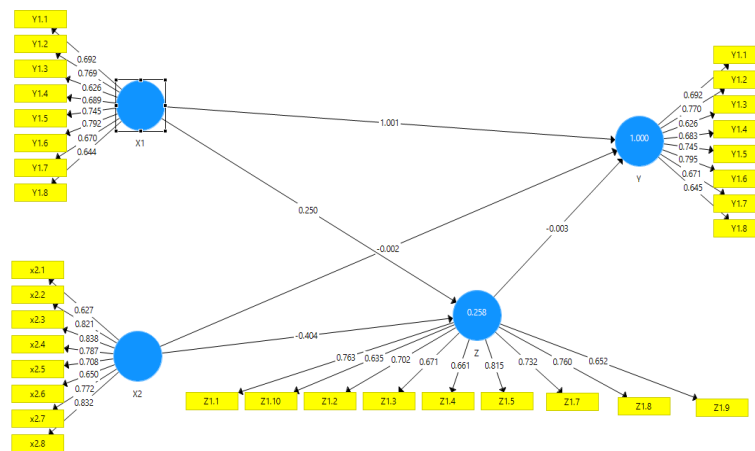

Figure 1. Convergent Validity Test

After re-testing, it can be seen that all the variable indicator factor loading values have a value > 0.6. Then the test can be continued on the Construct Reliability and Validity Test. A reliability test is done by looking at the value of Cronbach's alpha. This value can reflect the reliability value of all indicators in the research model. The minimum value is 0.7 while the ideal is 0.8 or 0.9. While the validity is seen from the Average Variance Extracted (AVE) value, at least the AVE value is 0.5.

Table 1. Reliability and Validity Test

Statistic	Cronbach's Alpha	Average Variance Extracted (AVE)
Role Ambiguity	0.869	0.656
Organizational Justice	0.896	0.705
Work Stress	0.819	0.578
Cyberloafing	0.839	0.608

Based on table 1. The test of variable reliability as measured by Cronbach's alpha shows that all values are above 0.7 and the validity test with AVE shows the results that all variables are above 0.5, which means that all variable indicators pass the validity and reliability test of the data. This R square test describes the magnitude of the influence of the independent variable on the dependent variable. The value of R square can also be used as a prediction to find out how good the research model is. The greater the value of R, the better the model is. In this study, the value of R square on the work stress variable was 0.132 or 13.2%. This explains that ambiguity and organizational justice variables affect work stress by 13.2%, and it is influenced by other factors outside the model. The value of R square on Cyberloafing is 0.397 or 39.7%, which means that the variables of role ambiguity, organizational justice, and work stress can affect Cyberloafing by 39.7%, while 60.3% is influenced by other factors outside the model. The goodness of fit test in this study is carried out by looking at the Standardized Root Mean Square Residual (SRMR) and Normal Fit Index (NFI) values. SRMR value < 0.01 then the model will be considered fit. NFI will produce a value between 0-1, the closer the NFI value is to 1, the better the research model built. Based on the GOF test, the SRMR value is less than 0.01 and the NFI value is 0.756, so it can be concluded that the research model built is fit or good. Then it will be continued with testing the inner model. To prove the truth of the hypothesis that is built, it is the direct influence between variables using PLS, the test results can be seen in table 2.

Table 2. Direct Effect Test

Variable		Original Sample	t-Statistic	P-Value	Information
Dependent	Independent				
Work Stress	Role Ambiguity	0.518	5.318	0.000	Accepted
	Organizational Justice	-0.174	1.678	0.047	Accepted
Cyberloafing	Role Ambiguity	0.269	2.092	0.018	Accepted
	Organizational Justice	-0.078	0.634	0.263	Rejected
	Work Stress	0.237	1.538	0.062	Rejected

The results of the first regression test between the independent variables on the mediating variable. The test results show that the role ambiguity variable has a positive coefficient on work stress. While the social justice variable has a negative directional coefficient on work stress. The p-values of role ambiguity and organizational justice are 0.000 and 0.047 where this value is smaller than alpha 0.05, so it can be concluded that the ambiguity variable has a positive effect on work stress and the organizational justice variable harms work stress. Then hypotheses 1 and 2 are accepted.

Based on the results of the second regression test with cyberloafing as the dependent variable using PLS, the results show that the organizational justice variable shows a negative direction, while role ambiguity and work stress show a positive direction. The p-value of role ambiguity is 0.018, which is smaller than the alpha of 0.05. It is concluded that the role ambiguity variable has a positive effect on cyberloafing. While the p-value of the organizational justice variable is 0.263 and the p-value of work stress is 0.062 where the value is greater than 0.05 alpha but smaller than the 0.10 alpha value. Thus this hypothesis is accepted with a confidence level of 90%. The work stress variable is not proven to affect cyberloafing, so the hypothesis is rejected. To see the indirect effect or the effect of the mediating variable work stress on the hypotheses built, the results of the indirect effect with PLS can be seen in the Table 3.

Table 3. Indirect Effect Test

	Original Sample	t-Statistic	P-Value
Ambiguity->Work Stress->Cyberloafing	0.123	1.375	0.085
Organizational Justice->Work Stress-> cyberloafing	0.041	1.069	0.143

Based on the results of the analysis in Table 3, it shows that there is no influence of role ambiguity and organizational justice on cyberloafing mediated by work stress. This can be seen by the p-value of each variable of 0.085 and 0.143, which is higher than alpha 0.05. Thus, hypotheses 4 and 5 are rejected in this study. In other words, job stress does not act as a mediating influence between role ambiguity and organizational justice in cyberloafing.

Discussion

In this study, role ambiguity is found to have a positive effect on job stress. This means that the higher the role ambiguity will increase the work stress of employees. Role ambiguity is the perception that

one lacks the information needed to perform a job or task, which leads to feelings of employees feeling powerless (Schwepker & Good, 2017; Zhang et al., 2022). Role ambiguity is related to the uncertainty of the tasks and responsibilities that must be done or carried out, how the competence of the tasks must be prioritized, and how the right way to carry out the tasks and responsibilities required (Prasetyo & Marsono, 2011; Zhang et al., 2022). The number of job assignments given in a short time or the work given that is too difficult and exceeds their capabilities, can result in employees become tired, decrease their physical and mental health which can cause stress and are prone to conflict. When employees faced a workload, they are likely to stress due to the various demands and pressures they faced and the company requires employees to work in all positions. This of course can lead to role ambiguity for employees (Lonteng et al., 2019; Orgambídez & Almeida, 2020).

Organizational justice in this study have a negative effect on job stress. This means that the fairer the organization in the perception of employees, the lower the level of stress faced by employees. Organizational justice is a condition of work that leads individuals to a belief that they are treated fairly or unfairly by the organization (Öğüt et al., 2013; Rahaei & Salehzadeh, 2020). Companies that prioritize organizational justice can make employees feel comfortable at work without any perceived conflict or psychological pressure. Indirectly this will reduce employee stress levels. The results of this study are in line with the research found that organizational justice had a negative effect on job stress. (Budiyanti et al., 2018; Öğüt et al., 2013).

Browsing activity has a positive impact on the influence and work of employees (V. K. G. Lim & Chen, 2012). Role ambiguity has a positive effect on cyberloafing, it means that the higher the role ambiguity, the higher the cyberloafing. Lack of an employee's understanding of their specific rights and obligations at work can make them confused in doing work where the escape from this is cyberloafing, such using the company's internet facilities for personal purposes that have nothing to do with work (Koay et al., 2017; V. K. G. Lim & Chen, 2012; Lonteng et al., 2019). The existence of role conflict and role ambiguity which is a trigger for job stress can cause cyberloafing by the employees. Employees who face role ambiguity will try to find activities or activities outside of their work roles and responsibilities using office facilities (P. K. Lim et al., 2021; Y. Tsai et al., 2018). This finding is in line with the research stated that role ambiguity has a positive effect on cyberloafing (Lonteng et al., 2019).

Based on the analysis that has been done, shows that organizational justice affects on cyberloafing. This means that the behavior of employees who use office internet facilities for personal interests can be caused by feeling disappointed because they do not get fair treatment from the organization. The results of this study are in line with the findings of the research found empirical evidence that organizational justice affects on cyberloafing (Öğüt et al., 2013; Rahaei & Salehzadeh, 2020). Related the role of job stress as a mediator of the influence between role ambiguity and organizational justice on cyberloafing is not supported in this study. This study also has limitations, one of them is a research questionnaire. The research questionnaire which is the instrument in this study can only be entrusted to one of the division heads to be distributed to the civil servant so that researchers also cannot communicate directly with respondents. In addition, this research was conducted on the civil servant, so the results of the study cannot be generalized to employees in other sectors. Future research is suggested to develop this research on employees of other sectors with wider sample coverage. Research models can also be developed by adding other factors that can influence cyberloafing behavior, such as work behavior, internet addiction, and many more.

4. CONCLUSION

Role ambiguity and organizational justice have a significant effect on job stress. Furthermore, the variables of role ambiguity and organizational justice have also been shown to have a direct effect on cyberloafing behavior. However, the hypothesis regarding the role of work stress as a mediator of the effect of role ambiguity and organizational justice on cyberloafing behavior IS not proven in this study.

5. REFERENCES

Amaoge, D. A., & Ejike, U. (2016). Assessment of Internet Awareness and Use by the Undergraduate Students of College of Agricultural and Science Education in Michael Okpara University of Agriculture Umudike. *American Journal of Educational Research*, *4*(2). https://doi.org/10.12691/education-4-2-8.

Askew, K., Buckner, J. E., Taing, M. U., Ilie, A., Bauer, J. A., & Coovert, M. D. (2014). Explaining cyberloafing: The role of the theory of planned behavior. *Computers in Human Behavior*, *36*. https://doi.org/10.1016/j.chb.2014.04.006.

Blanchard, A. L., & Henle, C. A. (2008). Correlates of different forms of cyberloafing: The role of norms and external locus of control. *Computers in human behavior*, *24*(3), 1067–1084. https://doi.org/10.1016/j.chb.2007.03.008.

Budiyanti, H., Patiro, S. P., & Nurman, N. (2018). Organizational justice perception of Indonesia civil servants, does it matter? *Jurnal Ekonomi Dan Bisnis*, *21*(2). https://doi.org/10.24914/jeb.v21i2.2017.

Colacion-Quiros, H., & Gemora, R. B. (2016). Causes and effects of stress among faculty members in a state university. *Asia Pacific Journal of Multidisciplinary Research*, *4*(1), 18–27.

Dede, D., & Rinnanik, R. (2020). Pengaruh Moderasi Spiritualitas Islam Di Tempat Kerja Terhadap Keadilan Organisasi Dan Cyberloafing: Studi Pada Bank Berbasis Islam Di Lampung Timur. *Jurnal Manajemen*, *15*(2). https://doi.org/10.24127/jm.v15i2.634.

Derin, N., & Gökçe, S. G. (2016). Are Cyberloafers Also Innovators?: A Study on the Relationship between Cyberloafing and Innovative Work Behavior. *Procedia - Social and Behavioral Sciences*, *235*. https://doi.org/10.1016/j.sbspro.2016.11.070.

Dijke, M. van, Leunissen, J. M., & Wildschut, T. (2019). Nostalgia promotes intrinsic motivation and effort in the presence of low interactional justice. *Organizational Behavior and Human Decision Processes*, *150*. https://doi.org/10.1016/j.obhdp.2018.12.003.

Farndale, E., Agarwal, P., & Budhwar, P. (2022). Outcomes of talent identification in economically liberalized India: Does organizational justice matter? *Journal of Business Research*, *144*. https://doi.org/10.1016/j.jbusres.2022.02.043.

Fein, E. C., Tziner, A., & Vasiliu, C. (2021). Perceptions of ethical climate and organizational justice as antecedents to employee performance: The mediating role of employees' attributions of leader effectiveness. *European Management Journal*. https://doi.org/10.1016/j.emj.2021.11.003.

Gibson, J., Ivancevich, J., & Konopaske, R. (2011). *Organizations: Behavior, structure, processes*. McGraw-Hill Higher Education.

Gluschkoff, K., Kaihlanen, A., Palojoki, S., & Laukka, E. (2021). Reporting of health information technology system-related patient safety incidents: The effects of organizational justice. *Safety Science*, *144*. https://doi.org/10.1016/j.ssci.2021.105450.

Halipah, H. (2015). Pengaruh Keadilan Organisasi Dan Stres Terhadap Organizational Citizenship Behavior (Ocb) Guru Sekolah Dasar Negeri Di Kecamatan Dukuhwaru Tegal, Jawa Tengah. *Jurnal Manajemen Pendidikan*, *6*(1), 1067–1076. https://doi.org/10.21009/jmp.06108.

Herdiati, M. F., Sujoso, A. D. P., & Hartanti, R. I. (2015). Pengaruh stresor kerja dan persepsi sanksi organisasi terhadap perilaku cyberloafing di universitas jember (The Impact of Work Stressors and Organizational Sanctions Perception on Cyberloafing Behavior in Jember University). *Pustaka Kesehatan*, *3*(1), 179–185.

Hootegem, A. Van. (2022). Worlds of distributive justice preferences: Individual- and country-level profiles of support for equality, equity and need. *Social Science Research*, *106*. https://doi.org/10.1016/j.ssresearch.2022.102721.

Koay, K. Y., Soh, P. C. H., & Chew, K. W. (2017). Do employees' private demands lead to cyberloafing? The mediating role of job stress. *Management Research Review*, *40*(9), 1025–1038. https://doi.org/10.1108/MRR-11-2016-0252.

Le, H., & Pan, L. (2021). Examining the empirical redundancy of organizational justice constructs. *Organizational Behavior and Human Decision Processes*, *165*. https://doi.org/10.1016/j.obhdp.2021.03.004.

Leineweber, C., Peristera, P., Bernhard-Oettel, C., & Eib, C. (2020). Is interpersonal justice related to group and organizational turnover? Results from a Swedish panel study. *Social Science & Medicine*, *256*. https://doi.org/10.1016/j.socscimed.2020.113526.

Lim, P. K., Koay, K. Y., & Chong, W. Y. (2021). The effects of abusive supervision, emotional exhaustion and organizational commitment on cyberloafing: a moderated-mediation examination. *Internet Research*, *31*(2), 497–518. https://doi.org/10.1108/INTR-03-2020-0165.

Lim, V. K. G., & Chen, D. J. Q. (2012). Cyberloafing at the workplace : Gain or drain on work ? *Behaviour & Information Technology*, 1–11. https://doi.org/10.1080/01449290903353054.

Lonteng, E., Kindangen, P., & Tumewu, F. J. (2019). Analysis Of Role Conflict and Role Ambiguity towards Cyberloafing at PT. Bank Sulutgo Manado. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, *7*(4). https://doi.org/10.35794/emba.v7i4.26579.

Malik, P. K., Singh, R., Gehlot, A., Akram, S. V., & Das, P. K. (2022). Village 4.0: Digitalization of village with smart internet of things technologies. *Computers & Industrial Engineering*, *165*. https://doi.org/10.1016/j.cie.2022.107938.

Marcucci, O. (2021). Why restorative justice works in schools: An investigation into the interactional dynamics of restorative circles. *Learning, Culture and Social Interaction*, *31*. https://doi.org/10.1016/j.lcsi.2021.100561.

Matteson, M. L., Ming, Y., & Silva, D. E. (2021). The relationship between work conditions and perceptions of organizational justice among library employees. *Library & Information Science Research*, *43*(2). https://doi.org/10.1016/j.lisr.2021.101093.

Muehlethaler, C., & Albert, R. (2021). Collecting data on textiles from the internet using web crawling and web scraping tools. *Forensic Science International*, *322*. https://doi.org/10.1016/j.forsciint.2021.110753.

Nydia, N., & Pareke, F. J. (2019). Dinamika Peran Dan Cyberloafing. *Managament Insight: Jurnal Ilmiah Manajemen*, *14*(2), 138–146.

Öğüt, E., Şahin, M., & Demirsel, M. T. (2013). The relationship between perceived organizational justice and cyberloafing: Evidence from a public hospital in Turkey. *Mediterranean Journal of Social Sciences*, *4*(10), 226. https://doi.org/10.5901/mjss.2013.v4n10p226.

Orgambídez, A., & Almeida, H. (2020). Exploring the link between structural empowerment and job satisfaction through the mediating effect of role stress: A cross-sectional questionnaire study. *International Journal of Nursing Studies*, *109*. https://doi.org/10.1016/j.ijnurstu.2020.103672.

Oubrich, M., Hakmaoui, A., Benhayoun, L., Söilen, K. S., & Abdulkader, B. (2021). mpacts of leadership style, organizational design and HRM practices on knowledge hiding: The indirect roles of organizational justice and competitive work environment. *Journal of Business Research*, *137*. https://doi.org/10.1016/j.jbusres.2021.08.045.

Prasetyo, A., & Marsono. (2011). Pengaruh role ambiguity dan role conflict terhadap komitmen independensi auditor internal. *Jurnal Akutansi & Auditing*, *7*(2), 147–163. https://doi.org/10.1007/springerreference_7164.

Rahaei, A., & Salehzadeh, R. (2020). Evaluating the impact of psychological entitlement on cyberloafing: the mediating role of perceived organizational justice. *Vilakshan - XIMB Journal of Management*, *17*(1//2), 137–152. https://doi.org/10.1108/XJM-06-2020-0003.

Rahman, M. H. A., & Karim, D. N. (2022). Organizational justice and organizational citizenship behavior: the mediating role of work engagement. *Heliyon*, *8*(5). https://doi.org/10.1016/j.heliyon.2022.e09450.

Restubog, S. L. D., Garcia, P. R. J. M., Toledano, L. S., Amarnani, R. K., & Tolentino, L. R. (2011). Yielding to (cyber)-temptation: Exploring the buffering role of self-control in the relationship between organizational justice and cyberloafing behavior in the workplace. *Journal of Research in Personality*, *45*(2). https://doi.org/10.1016/j.jrp.2011.01.006.

Schwepker, C. H., & Good, M. C. (2017). Reducing salesperson job stress and unethical intent: The influence of leader-member exchange relationship, socialization and ethical ambiguity. *Industrial Marketing Management*, *66*. https://doi.org/10.1016/j.indmarman.2017.08.008.

Shimamura, M., Fukutake, M., Namba, M., & Ogino, T. (2021). The relationship among factors of organizational justice, organizational citizenship behavior, job satisfaction, and ease of work among Japanese nurses. *Applied Nursing Research*, *61*. https://doi.org/10.1016/j.apnr.2021.151479.

Tsai, H.-Y. (2022). Do you feel like being proactive day? How Daily Cyberloafing Influences Creativity and Proactive Behavior: The Moderating Roles of Work Environment. *Computers in Human Behavior*. https://doi.org/10.1016/j.chb.2022.107470.

Tsai, Y., Lin, C., Hong, J., & Tai, K. (2018). The effects of metacognition on online learning interest and continuance to learn with MOOCs. *Computers & Education*, *121*. https://doi.org/10.1016/j.compedu.2018.02.011.

Unterhitzenberger, C., & Moeller, D. (2021). Fair project governance: An organisational justice approach to project governance. *International Journal of Project Management*, *39*(6). https://doi.org/10.1016/j.ijproman.2021.06.003.

Wiguna, M. (2014). Pengaruh Role Conflict, Role Ambiguity, Self-Efficacy, Sensitifitas Etika Profesi, Gaya Kepemimpinan Terhadap Kinerja Auditor dengan Emotional Quotient Sebagai Variabel Moderating. *Jurnal Ilmiah Ekonomi dan Bisnis*, *11*(2), 503–19.

Zhang, L., Lin, M., Ling, Q., & Cui, X. (2022). The effects of manager role stress on job thriving of both employees and managers through empowering leadership. *Tourism Management*, *92*. https://doi.org/10.1016/j.tourman.2022.104545.