The Effect of Technology Transformation Implementation on Teacher Workload at the MI Adabiyah 2 Palembang Educational Foundation

Indriani[1,] Aidina Syafaroh Ramadini[2], Vera Finidia Indah[3], Rosnanik Assik[4], Nadillah[5]

[1,2,3,4,5]Sekolah Tinggi Ilmu Ekonomi APRIN, Palembang, Indonesia

Corresponding email: indrianisajad25@gmail.com

Abstract. This study investigates the implementation of technology transformation on teacher workload at the MI Adabiyah 2 Palembang Educational Foundation in enhancing teacher performance during teaching. The development of both information and communication technology significantly influences and plays a crucial role in the field of education. This study aims to determine the effect of technology transformation implementation on teacher workload at the MI Adabiyah 2 Palembang Educational Foundation.

The methodology employed is a quantitative research model using simple linear regression. The type and sources of data include descriptive research utilizing primary and secondary data. The results indicate that the regression coefficient obtained a value of 0.318, demonstrating a positive and significant relationship between the implementation of technology transformation and teacher workload at the MI Adabiyah 2 Palembang Educational Foundation. Based on the findings, it is evident that the implementation of technology transformation in the educational environment can impose an additional workload on educators (teachers). This underscores the importance for every educational institution to consider the readiness and technological proficiency of teachers to prevent it from becoming an undue burden, which could ultimately affect the quality of their work.

Keywords: Technology Transformation; Teacher Workload

INTRODUCTION

Along with the progression of time, many changes have occurred, particularly in the field of technological advancements, which are crucial and have a significant impact on various aspects of human life. The development of both information and communication technologies has influenced and played a major role in the field of education. Manongga (2021) explains that technology is essential for teachers today, especially in administrative tasks, and for facilitating interactions between teachers and students. Technology in education provides various systematic methods for the delivery of learning, from planning, implementation, and evaluation in the educational process.

The current phenomenon in the world suggests that teachers should continuously improve their skills and competencies, especially in the field of technological advancement that aligns with modern times. The issue faced by this educational foundation is the lack of human resources who are proficient in technology, as teachers are encouraged to stay updated and follow technological progress, particularly in the use of computers to make their tasks easier. However, this also becomes a burden for teachers, especially those who are older and may struggle to understand the technological advances occurring in the present era. The slow pace at which teachers complete their tasks can lead to a backlog of responsibilities. If left unaddressed, this can result in an increased workload for the teachers themselves. Another issue in this educational foundation is that some teachers are eager to learn about computers, while others refuse to use them at all.

METHOD

This study uses a quantitative research model with simple linear regression analysis. The type and source of data are descriptive research using both primary and secondary data. The population and sample for this study consist of teachers from the MI Adabiyah 2 Palembang Educational Foundation, with a total of 55 teachers.

RESULTS AND DISCUSSION

The results of the study indicate that the implementation of technology transformation in the educational environment can impose an additional workload on educators (teachers). This highlights the importance for every educational institution to consider the readiness and technological proficiency of teachers, so that it does not become a burden that could affect their work performance.

Based on the results of the simple linear regression test conducted to examine the relationship between the independent variable, the implementation of technology transformation (X), and the dependent variable, teacher workload (Y), the following simple linear regression equation was obtained:

Tabel 4.1.
Simple Regression Test Results

Coefficients[a]					
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	12,405	2,000		6,203	,000
Penerapan Transformasi Teknologi	,318	,082	,470	3,875	,000
a. Dependent Variable: Beban Kerja					

Source: Processed data SPSS 23, 2024

Based on the SPSS results above, the regression equation from the statistical calculation is obtained as follows:

$Y = a + bX$

$Y = 12.405 + 0.318X$

The meaning of the regression equation is as follows:
a) The constant value (a) of 12.405 indicates that if there is no implementation of technology transformation (X), the consistent value of teacher workload (Y) would be 12.405.
b) The regression coefficient value (b) of 0.318 means that for every 1% increase in the level of technology transformation implementation (X), the teacher workload (Y) will increase by 0.318.
c) Since the regression coefficient is positive (+), it can be concluded that the implementation of technology transformation (X) has a positive and significant effect on teacher workload (Y).

Hypothesis testing using the t-test was used to determine the effect of the independent variable on the dependent variable by measuring the degree of relationship between the independent and dependent variables.

The hypothesis proposed in this study is as follows:
H1: It is suspected that there is an effect of technology transformation implementation on teacher workload.

Tabel 4.2.
Results of the t-Test Calculation

Coefficientsᵃ					
Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	12,405	2,000		6,203	,000
Penerapan Transformasi Teknologi	,318	,082	,470	3,875	,000
a. Dependent Variable: Beban Kerja					

Source: Processed data SPSS 23, 2024

Based on the results of the hypothesis test analysis, the calculated t-value was found to be 3.875 with a significance level (p) of 0.05. The table t-value is 1.673, as obtained from the predetermined t-table values. According to the hypothesis testing rule, since the calculated t-value (3.875) is greater than the table t-value (1.673), the alternative hypothesis (H1) is accepted.

The discussion of the results aims to provide a clear understanding and explanation of the findings obtained from the research. Based on the research results and the data calculations, it was found that there is an 87% impact of the implementation of technology transformation on the teacher workload at the MI Adabiyah 2 Palembang Educational Foundation.

To determine the direction of the relationship between the Technology Transformation Implementation (X) variable and the Workload (Y) variable—whether positive or negative—a simple linear regression test was conducted. From the results, the regression coefficient was found to be 0.318, which indicates a positive relationship. Therefore, it can be concluded that the direction of the influence between the Technology Transformation Implementation (X) variable and the Workload (Y) variable is positive, and the regression equation is Y = 12.405 + 0.318X.

Furthermore, the statistical test (t-test) results showed a t-calculated value of 3.875 and a t-table value of 1.673 with a significance of 0.000. According to the testing criteria, since the t-calculated value is greater than the t-table value, and the significance is less than α (0.05), the null hypothesis (Ho) is rejected. This indicates a significant effect of the implementation of technology transformation on the teacher workload at the MI Adabiyah 2 Palembang Educational Foundation.

Conclusion

Based on the data description and discussion of the research results as previously explained, it can be concluded that there is a significant influence between the variable of technology transformation implementation and teacher workload. The results indicate that the greater the implementation of technology transformation, the higher the teacher's workload. These findings support the hypothesis proposed in this study, and thus, the results contribute significantly to the understanding of the impact of technology transformation implementation on teacher workload.

REFERENCES

Abdullah, K., Jannah, M., Aiman, U., Hasda, S., Fadilla, Z., Taqwin, ..., & Sari, M. E. (2021). *Metodelogi Penelitian Kuantitatif*. Aceh: Yayasan Penerbit Muhammad Zaini. https://ar-raniry.ac.id

Abubakar, R. (2021). *Pengantar Metodologi Penelitian*. Yogyakarta: Penerbit SUKA-Press. https://digilib.uin-suka.ac.id

Arikunto, S. (2020). Pengertian hipotesis. Dalam Hardani, H., Andriani, J., Ustiawaty, E. F., Utami, R. R., Istiqomah, R. A., ..., & Auliya, N. H., *Metode Penelitian Kualitatif & Kuantitatif* (hal. 329). Yogyakarta: Penerbit Pustaka Ilmu. https://www.researchgate.net

Asriningtyas, D., & Kusumayadi, F. (2022). Pengaruh disiplin kerja dan lingkungan kerja terhadap produktivitas kerja pegawai pada Dinas Pekerjaan Umum (PU) Kabupaten Bima. *Jurnal Manajemen Sumber Daya Manusia*, 37–49. https://ejurnal.unisiri.ac.id

Danuari, M. (2019). Perkembangan dan transformasi teknologi digital. *Infokam*, 116–123. https://amikjtc.com

Darmasari, E. (2022). Pengaruh beban kerja dan stres kerja terhadap produktivitas kerja karyawan CV. Sinar Utama Yamaha Kota Samarinda. *Jurnal Administrasi Bisnis FISIPOL UNMUL*, 296–302.

Fauzi, A., & Nugroho, R. H. (2020). *Manajemen Kinerja*. Surabaya: Airlangga University Press. https://books.google.com

Harahap, T. K., dkk. (2021). *Manajemen Sumber Daya Manusia*. Klaten: Tahta Media Group. https://tahtamedia.co.id

Haraventa, T., & Suri, F. (2022). Hubungan beban kerja dengan stres kerja pada karyawan SPPBE PT. Mitha Sarana Wijaya. *Jurnal Ilmiah Magister Psikologi*, 135–140. https://jurnalmahasiswa.uma.ac.id

Hardani, H., Andriani, J., Ustiawaty, E. F., Utami, R. R., Istiqomah, R. A., Fardani, R. A., ..., & Auliya, N. H. (2020). *Metode Penelitian Kualitatif & Kuantitatif*. Yogyakarta: Penerbit Pustaka Ilmu. https://www.researchgate.net

Hasibuan. (2022). Fungsi manajemen SDM. Dalam M. Zahari, W. Sujatmiko, E. Kembauw, M. A. Tabun, N. Ihwanudin, V. Noekent, ..., & Nuryati, *Manajemen SDM (Strategi Organisasi Bisnis Modern)* (hal. 9–12). Nusa Tenggara Barat: Seval Literindo Kreasi.

Hermawan, E. (2022). Analisis pengaruh beban kerja, konflik pekerjaan keluarga, dan stres kerja terhadap kinerja PT. Sakti Mobile Jakarta. *JIMT (Jurnal Ilmu Manajemen Terapan)*, 379–387. https://dinastirev.org

Kasiram. (2022). Penelitian kuantitatif. Dalam K. Abdullah, M. Jannah, U. Aiman, S. Hasda, Z. Fadilla, Taqwin, ..., & M. E. Sari, *Metodologi Penelitian Kuantitatif* (hal. 3). Aceh: Yayasan Penerbit Muhammad Zaini. https://ar-raniry.ac.id

Kidder. (2021). Variabel. Dalam R. Abubakar, *Pengantar Metodologi Penelitian* (hal. 52). Yogyakarta: Penerbit SUKA-Press. https://digilib.uin-suka.ac.id

Maharani, R., & Budianto, A. (2019). Pengaruh beban kerja terhadap stres kerja dan kinerja perawat rawat inap. *Journal of Management Review*, 327–332. https://jurnal.unigal.ac.id

Manongga, A. (2021). Pentingnya teknologi informasi dalam mendukung proses belajar mengajar di sekolah dasar. *Prosiding Seminar Nasional Pendidikan Dasar*, 1–7. https://ejurnal.pps.ung.ac.id

Maulidah, K., Ali, S., & Pangestuti, D. C. (2022). Pengaruh beban kerja dan kepuasan kerja terhadap turnover intention karyawan RSU "ABC" Jakarta Selatan. *Jurnal Akuntansi, Keuangan, dan Manajemen (Jakman)*, 159–176. https://penerbitgoodwood.com

Notoatmojo. (2021). Sample. Dalam K. Abdullah, M. Jannah, U. Aiman, S. Hasda, Z. Fadilla, Taqwin, ..., & M. E. Sari, *Metodologi Penelitian Kuantitatif* (hal. 80). Aceh: Yayasan Penerbit Muhammad Zaini. https://ar-raniry.ac.id

Nurhanifah, H., & Susanty, A. I. (2021). Pengaruh beban kerja terhadap stres kerja karyawan di PT XYZ Kabupaten Bandung. *Jurnal Manajemen Sumber Daya Manusia*, 41–47.

Permadi, A. S., Purtina, A., & Jailani, M. (2020). Pengaruh pemanfaatan teknologi informasi dan komunikasi terhadap motivasi belajar. *Jurnal Pendidikan Guru Pendidikan Dasar*, 16–21.

Priatna, D., Syabani, A., Permana, D. R., Solihin, M. N., Wangsih, N., & Novianti, R. (2022). Pengaruh efektivitas platform digital terhadap kinerja pegawai Dinas Arsip dan Perpustakaan Kabupaten Sumedang. *Journal of Regional Public Administration (JRPA)*, 95–103. https://ejournal.unsap.ac.id

Pustikayasa, I., Permana, I., Kadir, F., Zebua, R. S., Karuru, P., Husnita, L., ..., & Suryani, I. (2023). *Transformasi Pendidikan: Panduan Praktis Teknologi di Ruang Belajar*. Jambi: PT. Sonpedia Publishing Indonesia. https://books.google.com

Ritonga, A. E., Sinaga, K., & Saragi, S. (2023). Pengaruh transformasi digital terhadap pengembangan sumber daya manusia (SDM) di Dinas Kependudukan dan Pencatatan Sipil (Disdukcapil) Kota Pematangsiantar. *Jurnal Publik Reform, 10*, 35–49.