

Improving Human Resource Performance Through Professional Competence Moderated by Digital Literacy

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Abstract. *This study aims to examine the influence of professional competence and digital literacy on human resource performance and to examine digital literacy as a moderating variable. The research model was tested on 174 public and private junior high school educators in Mijen District, Semarang City, under the jurisdiction of the Semarang City Education Office. The research instrument was a questionnaire measuring three main variables: professional competence, digital literacy, and human resource performance. The sampling method used purposive sampling, and the data were analyzed using Structural Equation Modeling based on Partial Least Squares (SEM-PLS). The analysis results indicate that: (1) professional competence has a positive and significant effect on human resource performance; and (2) digital literacy also has a positive and significant effect on human resource performance. Furthermore, digital literacy, as a moderating variable, significantly impacted the relationship between professional competence and human resource performance. The R-square value indicates that the combination of professional competence and digital literacy moderately explains variations in human resource performance. The implication of this study is the importance of improving the professional competence of educators, accompanied by the development of digital literacy. Mastery of information technology, digital literacy skills, and skills in creating and managing digital information are crucial for supporting the effective implementation of educators' duties. Practical recommendations include improving technology-based training programs and integrating digital approaches into human resource development systems. This research can contribute to the development of human resource management theory, particularly in educational organizations.*

Keywords: *Digital Literacy; Human Resource Performance; Professional Competence; PLS-SEM.*

1. Introduction

Education in Indonesia is a government responsibility regulated through various national policies and regulations, with the aim of ensuring equal access and improving the quality of education for all citizens (Anwar, 2022; Syaputra & Hasanah, 2021). Public schools are educational institutions fully funded by the government and are inclusive, accepting students from various socioeconomic strata (Saisarani & Sinarwati, 2021). Meanwhile, private schools are independently managed educational institutions and obtain funding from tuition fees and third-party donations (Imaduddin, 2021). The quality of education is the foundation for individual and societal development (Hidayat et al., 2021). The comparison between public and private schools has long been a debate that stimulates in-depth reflection on the methods and resources that play a role in shaping future generations.

Differences in educational context between public and private schools can have significant implications for the learning process, both in terms of pedagogical approaches, resource availability, and the school culture that develops in each institution (Sunarni & Karyono, 2023). From class size to teaching approaches, this comparison boils down to the fundamental question of how students can reach their full potential in an optimal learning environment. In public schools, large class sizes may reduce individual attention for students. Conversely, private schools with smaller classes tend to provide more individual attention to each student (Wirda et al., 2020). Teaching approaches also vary, with public schools following a more standardized curriculum, while private schools can be more flexible in their teaching methods (Aegustinawati & Sunarya, 2023). Both public and private schools can have qualified teachers. However, private schools often have a more stringent selection process for recruiting teachers and may offer better incentives to attract qualified teachers (Murtafiah, 2021). Teacher quality is also a determining factor in education (Susiani & Abadijah, 2021).

Recognizing the urgency of accurate and up-to-date data availability, the Education Report Card was developed, containing data that can be processed as part of the database planning process. The data in the Education Report Card is drawn from several reliable sources, one of which is the results of the National Assessment. The National Assessment is considered a source capable of describing the specific thematic issues of educational units in a particular region. The results of the National Assessment are then processed in the Education Report Card and used for the Data-Based Planning process to produce programs or activities that align with the learning challenges in each educational unit.

Based on the above description, the author is enthusiastic about conducting further research related to the Semarang City Education Report Card results, which show a decline in the quality of teaching staff or human resources. Therefore, the researcher is interested in examining the Education Report Card data for public and private junior high schools in Semarang City, particularly focusing on public and private junior high schools in Mijen District, Semarang City, in 2025 compared to 2024 in terms of human resources. From the Semarang State Junior High School Education Report in 2024, it was 66.81 and in 2025 it decreased by 0.27 to 66.54, then in Semarang Private Junior High Schools in 2024 it was 64.18 and in 2025 it decreased by 1.84 to 62.34 and in the Quality of Learning in Public Junior High Schools and Private Junior High Schools in Semarang City, the Achievement in 2024 was 64.82 and in 2025 it decreased by 1.47 to 63.35 with the category still good.

2. Research Methods

This research uses quantitative methods to validate or strengthen a hypothesis through hypothesis testing, which aims to strengthen the theory and provide a foundation. Therefore, the type of research used in this study is explanatory research. Kuncoro (2007) explains that explanatory research is research that explains the relationship between one variable and another, such as variables X and Y.

According to Sugiyono (2015), explanatory research is a research method that aims to explain the position of the variables being studied and the influence between one variable and another. Meanwhile, Singarimbun and Effendi (1995) explain that explanatory research is research that explains the relationship between research variables and tests previously formulated hypotheses.

The rationale for using explanatory research is to test the proposed hypothesis. This study is expected to explain the relationship and influence between the independent and dependent variables contained in the hypothesis. In this case, it examines the influence of intrinsic and extrinsic motivation on HR performance, with religiosity as an intervening variable.

3. Results and Discussion

3.1. The Influence of Professional Competence on HR Performance

The results of the Partial Least Square (PLS) analysis show that Professional Competence has an effect on HR Performance, this is proven by the original sample value of 0.696 and the P-value of 0.000. Because the P-value of $0.000 < 0.05$ and the T-statistic of $8.900 > T\text{-table } 1.96$, it is concluded that Professional Competence has a positive and significant effect on HR Performance.

This means that the better the professional competence of educators, the higher the performance of the human resources they master. With good professional competence, mastery of material, pedagogical skills, social skills, personality skills, and the ability to manage processes, and create new innovations that support their duties and also provide the best and work according to standards, are able to analyze complex problems and develop effective solutions, can work well to achieve organizational goals and are able to adapt to technological changes.

This finding aligns with research conducted by Suci Afriani Sulhabar (2019), which showed that professional competence has a positive and significant impact on the performance of human resources (HR) teachers at elementary schools in North Galesong District, Takalar Regency. This means that teachers with good professional competence, including mastery of material, pedagogical skills, and the ability to manage the learning process, tend to demonstrate higher performance.

3.2. The Influence of Digital Literacy as a Moderator on HR Performance

Digital Literacy has also been shown to have a positive and significant impact on HR performance. The analysis results show an original sample value of 0.091 and a P-value of 0.016. Since the P-value is <0.05 and the T-statistic is $2.402 >$ the T-table of 1.96, it can be concluded that Digital Literacy has a positive and significant impact on HR performance.

This means that the higher the digital literacy skills possessed by educators, such as the ability to utilize information technology, manage digital learning resources, and integrate digital media in the learning process, the better their performance in carrying out professional tasks, being proficient in using various applications and software, searching for information from digital sources quickly and accurately, collaborating with colleagues in using digital platforms effectively, being able to use digital editing, content or documents to support their work.

These results are in line with Dharma's research (2022), whose research results show that digital literacy has a positive and significant influence on the performance of teaching staff at State Vocational High Schools (SMK) in Gowa Regency.

4. Conclusion

The formulation of this research is how to improve human resource performance through professional competence with digital literacy as a moderating variable in public and private junior high schools in Mijen District, Semarang City under the Semarang City Education Office. While the purpose of this study is to describe and analyze the improvement of human resource performance through professional competence with digital literacy as a moderating variable. To analyze the relationship between these variables, this study uses SmartPLS (Partial Least Square). Professional competence has a positive effect on human resource

performance in public and private junior high school educators in Mijen District, Semarang City under the Semarang City Education Office, meaning that if professional competence increases, it will affect the improvement in human resource performance. Digital literacy has a moderating effect on the influence of professional competence on human resource performance in public and private junior high school educators in Mijen District, Semarang City under the Semarang City Education Office.

5. References

Journals:

- Albashori, Muhammad Fatkhurohman, and Subandi Subandi. 2022. "Pengaruh Etos Kerja Dan Religiusitas Terhadap Kinerja Karyawan BMT Al Barokah Ngluwar Salam Magelang." *Jurnal Riset Akuntansi Dan Bisnis Indonesia* 2.1: 1–18.
- Anwar, M. S. (2022). Ketimpangan aksesibilitas pendidikan dalam perspektif pendidikan multikultural. *Foundasia*, 13(1), 1–15. <https://doi.org/10.21831/foundasia.v13i1.47444>
- Buchari Alma, Guru Profesional, (Bandung: Alfabeta.2006)., hal.142 7 Erviana Linda, Dkk, Upaya Peningkatan Profesionalisme Guru Program Keahlian Akuntansi Dalam Proses Pembelajaran SMK Kabupaten Karanganyar. *JUPE UNS*, Vol 1 No 3. Hal 1-11, (Surakarta: Universitas Sebelas Maret. 2013)., hal.4
- Boechler, P., Dragon, K., & Wasniewski, E. (2014). Digital Literacy Concepts and Definitions. *International Journal of Digital Literacy and Digital Competence*, 5(4)
- Elvira Azis, Arif Partono Prasetyo, and Kristian Heri Utomo. 2019. "Overcoming Turnover Intention Problems: Direct– Indirect Model To Identify the Effect of Perceived Organizational Support and Job Satisfaction in Service-Based Organizations." *Jurnal Aplikasi Manajemen* 17 (3): 555–66. <https://doi.org/10.21776/ub.jam.2019.017.03.20>.
- Hakim, Hakim, and Meinunik Alfiyah. 2021. "Pengaruh Motivasi Dan Lingkungan Kerja Terhadap Kinerja Karyawan Di Dinas Kependudukan Dan Pencatatan Sipil Kabupaten Cilacap." *Jurnal Ecoment Global* 6 (1): 55–64. <https://doi.org/10.35908/jeg.v6i1.1319>.
- Hidayat, C., Arifin, Z., & Rukajat, A. (2021). Urgensi Pendidikan Keluarga Dan Sekolah Untuk Meningkatkan Kualitas Pendidikan Anak Dalam Perspektif Hadist. *Jurnal Pendidikan Dan Pengajaran Guru Sekolah Dasar (JPPGuseda)*, 4(2), 159–165. <https://doi.org/10.55215/jppguseda.v4i2.3619>
- Sunarni, & Karyono, H. (2023). Persepsi Guru terhadap Implementasi Kurikulum Merdeka Belajar di Sekolah Dasar. *Journal on Education*, 5(2), 1613–1620.
- Yudiatmaja, Wayu Eko, Edison Edison, Rahayu Sulistiowati, Tri Samnuzulsari, and Jalaluddin Abdul Malek. 2021. "Linking Religiosity and Employee Performance in the Public Sector: Does Public Service Motivation Matter?" *Otoritas : Jurnal Ilmu Pemerintahan* 11 (2): 125–40. <https://doi.org/10.26618/ojip.v11i2.5353>.

Books:

- AA. Anwar Prabu Mangkunegara, 2000. *Manajemen Sumber Daya Manusia Perusahaan*. Bandung : PT Remaja Rosdakarya.

- Akmal Hawi, *Kompetensi Guru PAI*, (Palembang: Rafah Press, 2004)., hal.1
- Amaly, N., & Armiah, A. (2021). *Peran Kompetensi Literasi Digital Terhadap Konten Hoaks dalam Media Sosial*.
- Firmansyah, dicky romadhona. *Peningkatan kinerja personil berbasis kompetensi profesional yang dimoderasi kemampuan digital*. Diss. Universitas Islam Sultan Agung Semarang, 2025.
- Hadiono, Kristophorus, and Rina Candra Noor Santi. "Menyongsong transformasi digital." (2020).
- Handoko. (2016). *Manajemen Personalia dan Sumberdaya Manusia*. Yogyakarta: BPFE.
- Mangkunegara, A. P. (2001). *Manajemen Sumber Daya Manusia Perusahaan*. Penerbit PT Remaja Rosdakarya. Bandung
- Robbins, S. P. (2006). *Perilaku Organisasi*. Jakarta : PT. Indeks, Kelompok Gramedia
- Sugiyono. (2017). *Metode Penelitian Kuantitatif Kualitatif dan R&D*", Cetakan 9. Bandung: CV Alfabeta.
- Sutrisno, E. (2016). *Manajemen Sumber Daya Manusia*. Cetakan ke-8. Jakarta : Prenada Media Group.