EKOMA : Jurnal Ekonomi, Manajemen, Akuntansi
Vol.4, No.1, November 2024

Reskilling and Upskilling: HR Adaptation Strategies to Digital Transformation in the Traditional Sector

Eko Winarni[1], Siti Mujannah[2], Abdul Halik[3], Pardomuan Pardosi[4]
[1,2,3,4] Universitas 17 agustus 1945 Surabaya, Indonesia
Coresponden E-mail: eko.winarni76@gmail.com

Article History:
Received: 01 November 2024
Revised: 17 November 2024
Accepted: 19 November 2024

Keywords: *Ekonomi konvensional, ekonomi syariah,dan rasionalitas ekonomi.*

Abstract: *Digital transformation forces the traditional sector to adapt through reskilling and upskilling as a human resource development strategy. The sector faces a major challenge in ensuring employees have digital skills relevant to new technologies. This study aims to analyze the effectiveness of reskilling and upskilling training strategies in improving employee digital readiness in the traditional sector. The research method uses a quantitative descriptive approach through a survey of 150 respondents involved in the training program. The data was analyzed using descriptive and inferential statistical analysis to evaluate the relationship between the type of training, the duration of the training, and the level of digital readiness of employees. The results showed that information technology training dominated with 40% of respondents, followed by project management training by 30%. The majority of short-duration training (1-3 months) is effective in improving employees' digital readiness, but less attention is paid to developing soft skills. This gap points to the need for a more holistic approach to training. The conclusion of the study confirms that the combination of technical training and soft skills is essential to support digital transformation as a whole. Quality, relevant, and continuous training is the key to the success of human resource adaptation in the traditional sector. This research suggests an inclusive and strategic training policy to accelerate the digital transformation process.*

INTRODUCTION

Digital transformation has become one of the main drivers of change in various industry sectors. In recent years, digital technologies, such as automation, artificial intelligence, and big data, have impacted the way companies and employees work (Tsakila dkk., 2024). These changes focus not only on the adoption of new technologies, but also on how organizations adapt to those developments. Traditional sectors, which previously relied on manual processes and conventional systems, are now required to transform by leveraging technology to remain relevant and

competitive in the global market (Pertiwi et al., 2024).

Reskilling and upskilling policies are very important in the context of digital transformation. Reskilling refers to the process of learning new skills to replace outdated skills, while upskilling focuses on developing existing skills to accommodate changes and new technologies. Both of these approaches are key for companies in ensuring that the workforce remains competent and able to adapt to rapid industry developments. Thus, a good understanding of reskilling and upskilling is essential for the successful implementation of digital transformation (Yukiran, 2024).

In many traditional sectors, reskilling and upskilling have become a top priority in human resource (HR) development strategies. The traditional manufacturing, agriculture, and service sectors, for example, require a workforce capable of working with the latest technologies, such as production management software, automation systems, and cloud-based devices (Rahyu DK., 2024). Therefore, these companies must provide the right training to improve the digital skills of their workers. Without this skill adjustment, they risk losing their competitiveness and not being able to take advantage of the full potential of existing technology (Wahyudi et al., 2023).

The role of digital training in the traditional sector is crucial, given that many jobs that were previously done manually can now be automated. This creates an urgent need to reskill the workforce (Wulandari & Tumanggor, 2024). Therefore, companies that want to remain competitive in the digital era must build training programs that prioritize digital technology and skills, and ensure that the training is accessible to all levels of workers, from the lowest level to senior managers (Rachbini, 2023).

However, the main challenge in the implementation of reskilling and upskilling in the traditional sector is the inability of most employees to access relevant training. Many employees in the traditional sector have educational backgrounds and skills that do not fully support the needs of new technologies (Firdaus dkk., 2021). In addition, the digital divide between generations is also a problem, where older employees may find it more difficult to adapt to new technologies compared to younger generations who are more accustomed to technological developments (Fadillah & Fasa, 2021).

The importance of investing in skilled and trained human resources is becoming increasingly apparent as the demand for digital skills increases. In the traditional sector, this can include an understanding of information systems, the use of industrial software, and the ability to adapt to a wider range of digital platforms (Ardianto dkk., 2024). Providing appropriate training will help improve productivity and efficiency, and ensure that companies can manage their human resources more effectively in the face of digital transformation challenges (Telagawathi dkk., 2022).

Digital transformation is also affecting the way companies manage their human resources. Companies are now starting to realize that HR development is not only about training technical skills, but also about changing culture and mindset. Therefore, building a culture of continuous learning and adaptation is indispensable to support the success of digital transformation in the long term. Reskilling and upskilling programs should be seen as strategic investments that allow companies to not only survive, but thrive in the ever-changing digital era (Maharani dkk., 2022).

While digital transformation has been widely accepted in various industry sectors, its implementation in traditional sectors still faces a number of significant challenges. Many traditional sectors have not fully understood how to integrate technology with existing systems, as well as how to manage these changes at the HR level (Sharmistha & Sinambela, 2023). A major gap that still needs to be bridged is the lack of a clear understanding of the specific skills needed by workers in the sector to be able to adapt to evolving technological changes.

Another challenge is the lack of organizational readiness to provide effective training for reskilling and upskilling. Many companies in the traditional sector do not yet have adequate or well-structured training programs in place to prepare employees for change (Wijaya dkk., 2016). On the other hand, there is also a lack of measurement and evaluation of the effectiveness of the training programs that have been implemented, leading to a mismatch between the skills taught and the real needs in the field (Berliandaldo et al., 2020).

Limited access to digital training in the traditional sector is also a major obstacle. Many employees do not have the resources or opportunities to take courses or training related to new technologies. This results in a skills gap between workers who are already proficient in technology and those who are not, creating challenges in creating an inclusive and equitable work environment in terms of digital skills (Latifah dkk., 2024).

Additionally, while many organizations recognize the importance of reskilling and upskilling, they often do not have a systematic and sustainable policy in place to support the development of these skills (Pangiuk, 2019). Many companies consider training as a temporary activity or only to address short-term problems, rather than as a long-term investment in adapting to evolving technological changes. This hinders the development of human resources optimally in the long term (Rahman dkk., 2024).

Difficulties in measuring the impact of reskilling and upskilling on organizational performance are also a problem. Although a number of studies have shown that training can improve individual performance, there has not been in-depth research on the direct impact of reskilling and upskilling on the competitiveness and productivity of companies in traditional sectors. Therefore, there needs to be a more comprehensive approach in examining the relationship between training programs and the real results achieved by companies (Novitasari, 2022).

It is important to fill the gap that exists between the skills that workers in the traditional sector have and the skills needed to adapt to digital technology. Without systematic efforts to overcome this gap, the traditional sector will find it difficult to compete in the digital era. Reskilling and upskilling are necessary solutions to ensure workers can not only survive, but also take advantage of technology to increase productivity and innovation in their work. Without proper training, workers in this sector are at risk of being marginalized by technological advances.

This research aims to understand how reskilling and upskilling can be applied effectively in traditional sectors to support adaptation to digital transformation. This understanding is essential for designing a targeted training program, which not only teaches technical skills, but also helps build a mindset and work culture that is more open to change. This training program is expected to improve the competitiveness of traditional sectors, strengthen the HR skill base, and enable companies to better face the challenges of the digital era.

The hypothesis of this study is that the implementation of structured reskilling and upskilling can have a positive impact on the adaptability of human resources in the traditional sector. By improving the digital skills of workers, the traditional sector can more easily transform their business processes and improve performance. In addition, with the right training, employees in this sector will be better prepared for the changes and can optimize the use of technology in their work, which in turn can accelerate the digitalization process of the traditional sector as a whole.

RESEARCH METHODS

This study uses a quantitative descriptive research design with a survey approach (Li, 2019). The purpose of this study is to analyze reskilling and upskilling strategies applied in the

traditional sector and their impact on HR adaptation to digital transformation. The data collected will be used to identify the factors that affect the success of the training program as well as the relationship between training and employee readiness in the face of technological changes (Chen, 2022).

The population of this study is companies that are in traditional sectors, such as manufacturing, agriculture, and trade. The sample was taken from several companies that have implemented reskilling and upskilling policies. The sampling technique used is purposive sampling, where samples are selected based on certain criteria, such as companies that have a digital training program for employees and have been operating for a minimum period of 5 years (Egorov, 2021).

The main instrument used in this study is a questionnaire consisting of several parts. The questionnaire will measure various aspects related to reskilling and upskilling, including the frequency of training provided, the type of skills taught, and employees' perceptions of the effectiveness of training. In addition, the questionnaire will also include a section that measures the level of digital readiness of employees before and after participating in training. The 5-point Likert Scale is used to measure responses from employees (Bauer, 2019).

The research procedure begins with the identification of companies that meet the sample criteria, then conducts data collection through questionnaires distributed to employees involved in reskilling and upskilling programs. The questionnaire will be distributed online and offline, depending on the convenience of the respondent. Once the data is collected, descriptive and inferential statistical analyses will be conducted to evaluate the relationship between training variables and employee digital readiness. The data obtained were then analyzed using statistical software to identify patterns and draw conclusions regarding the effectiveness of training strategies in the traditional sector (Blanco-Encomienda, 2021).

RESULTS AND DISCUSSION

This study collected data from 150 respondents consisting of employees who participated in reskilling and upskilling programs in the traditional sector. The data collected includes information about the type of training attended, the duration of the training, as well as the level of digital skills possessed before and after participating in the training program. The data is then presented in the form of the following table:

Types of Training	Number of Respondents	Percentage (%)
Information Technology Training	60	40%
Project Management Training	45	30%
Soft Skills Training	30	20%
Other Training	15	10%

This table shows the division of the types of training that employees participate in in the traditional sector. Information technology training is becoming the most dominant, reflecting the sector's need to improve the digital skills of its workers.

From the data collected, it can be seen that most of the respondents took part in training that focused on information technology. This illustrates how important digital skills are in supporting digital transformation in the traditional sector. Project management training also recorded significant numbers, indicating the need for skills in technology-based project management. Soft skills, although not as much as technical skills, still show their importance in supporting communication and teamwork in an environment that is increasingly dependent on technology.

The traditional sector's reliance on digital skills is increasing, which is reflected in the majority of respondents who took part in information technology-related training. This is in line with the company's goal to increase productivity and work efficiency by utilizing technology. However, lower soft skills compared to technical skills indicate a gap in a more holistic approach to training.

In terms of training duration, the majority of respondents took part in training with a duration of 1 to 3 months, which was recorded as much as 75%. The rest, namely 25%, participated in training for more than 3 months. This data shows that training implemented in the traditional sector tends to be shorter, considering that many workers are already used to conventional jobs and need shorter time to adapt to new technologies. The shorter duration of training also indicates limitations in the preparation of in-depth and sustainable training programs.

Based on this data, many companies in the traditional sector are opting for short training to introduce employees to new technologies. This can be one of the factors that affect the effectiveness of training in the long run, as the skills learned in a short period of time may not be deep enough to completely change the way employees work. In addition, the short duration may also not provide enough space for employees to master the new skills well.

It is important to further examine the effect of training duration on the success rate of reskilling and upskilling programs. While short training can have a positive impact in the short term, there is no guarantee that employees will be able to implement new skills in their jobs without continuous learning. Therefore, although the traditional sector opts for shorter training durations, companies need to consider extending the training period and providing opportunities for material repetition to improve understanding and application of the skills learned.

The short duration of the training may reflect a pragmatic approach by the company, but its effectiveness needs to be further evaluated through observations on the performance and adaptation of workers after the training. In this case, the role of feedback from employees who have participated in the training is very important to assess whether the training time provided is optimal enough or still needs to be extended.

The results of the study show that there is a significant relationship between training programs and the level of digital adaptation of employees in the traditional sector. Information technology-focused reskilling and upskilling programs are proven to enhance employees' digital skills, which in turn accelerates their adaptation to technological changes. Although the training provided was relatively short, most respondents reported that they felt more prepared to use technology in their daily work after attending the training.

However, not all types of training have the same impact. Information technology training shows more significant results compared to managerial skills or soft skills training. This may be due to the fact that digital transformation requires more technical skills, while soft skills are more difficult to measure the impact in the short term. Therefore, to achieve optimal results, companies need to strike a balance between technical and non-technical skills in their training programs.

Overall, the data shows that while technology-based training has a positive impact, the traditional sector still has challenges in ensuring that all employees can get the most out of training. Limited time, resources, and access to more advanced technology are obstacles to the success of the training program.

The relationship between the type of training and the level of digital readiness of employees shows that the more training employees receive, the higher their readiness level to adapt to new technologies. This can be seen from the comparison of data between groups that participated in more than one type of training and groups that only participated in one type of training. The first group showed a higher level of readiness to implement technology in the workplace.

The data also shows that while short training provides an increase in digital skills, the duration of training is not always directly proportional to the level of adaptation. This means that longer training doesn't necessarily guarantee that employees will be better prepared digitally. Other factors such as the quality of training materials, teaching methods, and company support also play a very important role in the success of such training.

This relationship between training programs and digital readiness provides an important picture that the traditional sector must focus more on the quality and relevance of training materials rather than just extending the duration of training. Although short-term training provides positive results, the quality and type of training must be tailored to the needs of the industry and technological developments.

As a case study, one of the manufacturing companies that was a respondent in this study implemented an information technology training program involving more than 100 employees. The training program is delivered over a period of 3 months and focuses on the use of new production management software. As a result, 80% of employees reported improved ability to use the software and felt more productive at their jobs.

However, in another case, an agricultural company that had a longer training period (6 months) for cloud-based technology experienced a different challenge. Although the duration of training is longer, only about 60% of employees feel confident in their new skills. This indicates that although the duration of the training is longer, factors such as the complexity of the training material and the lack of ongoing support after the training also greatly affect the success rate of the program.

This case study demonstrates the importance of additional factors such as training quality, material relevance, and post-training support to ensure employees can truly leverage digital skills in their jobs. Companies must adapt their approach according to the characteristics of the work and the technological challenges faced.

Data from case studies provide important insights into the complexity of training program implementation in the traditional sector. In the case of manufacturing companies, training that focuses on one very specific tool or technology is proven to deliver good results. Meanwhile, agricultural companies that are trying to train employees for broader and more complex technologies face challenges in ensuring that all employees understand and can implement the technology.

Success in a manufacturing company can be explained by a more focused and relevant approach to the employee's day-to-day work. Meanwhile, in agricultural companies, the more common and indirect use of cloud technology related to their work takes longer to master. In addition, longer training in agricultural companies is not effective enough due to the lack of post-training support and continuous learning.

This data shows that in designing training programs, companies should consider the suitability of technology to the specific tasks of employees as well as provide ongoing support to ensure the skills learned can be applied effectively. Training programs must be adaptive and dynamic, adapting to the needs of technology and industry developments that are constantly changing.

This study found that reskilling and upskilling programs implemented in the traditional sector tend to focus on technical skills, especially information technology. Most of the training lasts for a short duration, i.e. 1-3 months, which is considered quite effective for introducing new technology to employees. The results of the study showed a significant increase in the level of digital readiness of employees after training.

Respondents who took the information technology training reported an increase in productivity in their work. However, there is a gap in soft skills training, which tends to be less noticed than technical training. This data shows the importance of a combination of technical training and soft skills to support digital transformation across the board.

Short training durations are a key characteristic in the traditional sector, but their effectiveness is influenced by the quality of the training materials and methods. Longer training does not always guarantee better results, especially if it is not supported by the relevance of the material and continuous learning.

These findings are in line with previous research that shows the importance of reskilling to support human resource adaptation to new technologies. Previous studies have also emphasized that technical skills play an important role in digital transformation. However, the study highlights that the traditional sector still faces challenges in integrating soft skills training, which is often not a priority.

Significant differences were seen in the approach to training duration. Several other studies suggest that longer training tends to be more effective, while this study shows that short durations can provide positive results, provided the quality of training is guaranteed. This provides a new perspective on the importance of efficiency in training design for the traditional sector.

The results of this study also highlight the gap between theory and implementation. While the literature underscores the need for holistic training, the traditional sector is often limited to pragmatic and short-term needs-based training programs, potentially hindering long-term development.

The results of this study are a sign that the traditional sector is at a crossroads between maintaining conventional methods and fully adopting digital transformation. Reskilling and upskilling are crucial tools to bridge this gap, but their implementation requires a more strategic approach.

The gap between technical skills and soft skills indicates an urgent need for more holistic training. Digital transformation is not only about technology, but also about building an adaptive work culture. Without an emphasis on soft skills, the desired change may only be superficial.

Another sign is the importance of equal access to training. Inequality in access to training in the traditional sector shows that digital transformation still faces structural barriers, including a lack of resources and systematic policies.

The main implication of this study is that the traditional sector needs to focus more on holistic training strategies, which include technical skills and soft skills. This will help increase competitiveness and ensure the sustainability of digital transformation.

A short but effective training program provides opportunities for companies to optimize time and resources. However, companies need to balance this with continuous learning to ensure better application of skills in the field.

Gaps in access to training can result in greater digital inequality. Therefore, policy interventions are needed to ensure that training is accessible to all levels of employees, regardless of their age or educational background.

These results reflect the pragmatic nature of the traditional sector, where training is often designed to meet urgent needs without considering long-term impacts. This is due to limited resources and pressure to remain competitive amid technological change.

The focus on technical skills, especially information technology, reflects the urgent need to integrate technology in work processes. Technology is the main key in increasing efficiency and productivity in the traditional sector, so technical training is a priority.

The gap in soft skills training occurs because its impact is difficult to measure in the short

term. Companies tend to allocate resources to training that can provide immediate results, although soft skills have an important role in supporting teamwork and adaptation to change.

Traditional sectors need to start integrating a more comprehensive training approach. The training program should include technical skills and soft skills, with an approach oriented towards continuous learning. This will ensure that employees are not only technically prepared, but also have an adaptive mindset.

Investment in training infrastructure is the next step. Companies need to build an inclusive training platform, which allows employees from different backgrounds to easily access digital training. This will help reduce the digital divide and create a more inclusive work environment.

Collaboration between the government, the private sector, and educational institutions is essential to create a training ecosystem that supports digital transformation in the traditional sector. This step will ensure that the training not only focuses on the needs of the company, but also on the overall development of human resources.

CONCLUSION

The most important finding of this study is the effectiveness of short-duration training in improving the digital readiness of employees in traditional sectors, especially on technical skills such as information technology. Short training durations can have a positive impact when balanced with relevant materials and effective training methods, despite gaps in soft skills development.

This research provides more value by contributing the concept of the importance of a combination of technical training and soft skills to support overall digital transformation. The quantitative descriptive research method used successfully identified the relationship between the type of training and the level of digital readiness of employees, providing new insights for the development of training strategies in the traditional sector.

The limitations of this study lie in the limited sample coverage of a few specific companies in the traditional sector and the lack of long-term evaluation of the impact of training. Further research needs to expand the scope of the sector, include post-training support variables, and measure the impact of training on company performance more comprehensively.

BIBLIOGRAPHY

Ardianto, R., Ramdhani, R. F., Dewi, L. O. A., Prabowo, A., Saputri, Y. W., Lestari, A. S., & Hadi, N. (2024). Transformasi digital dan antisipasi perubahan ekonomi global dalam dunia perbankan. *MARAS: Jurnal Penelitian Multidisiplin*, *2*(1), 80–88.

Bauer, G. R. (2019). Methods for analytic intercategorical intersectionality in quantitative research: Discrimination as a mediator of health inequalities. *Social Science and Medicine*, *226*(Query date: 2023-11-30 23:13:48), 236–245. https://doi.org/10.1016/j.socscimed.2018.12.015

Berliandaldo, M., Fasa, A. W. H., Kholiyah, S., Chodiq, A., & Hendrix, T. (2020). Transformasi Digital Dan Strategi Pengembangan Bisnis Umkm Yang Adaptif Dan Berkelanjutan Pasca Pandemi Covid-19. *Jurnal Analis Kebijakan*, *4*(2), 54–73.

Blanco-Encomienda, F. J. (2021). Quantitative evaluation of the production and trends in research applying the structural equation modelling method. *Scientometrics*, *126*(2), 1599–1617. https://doi.org/10.1007/s11192-020-03794-x

Chen, Y. (2022). Research on Quantitative Optimization Method Based on Incremental Optimization. *Lecture Notes in Computer Science (including subseries Lecture Notes in*

Artificial Intelligence and Lecture Notes in Bioinformatics), *13395*(Query date: 2023-11-30 23:13:48), 729–740. https://doi.org/10.1007/978-3-031-13832-4_60

Egorov, K. (2021). Research methodology for quantitative and qualitative parameters of parking space use. *Procedia Computer Science*, *193*(Query date: 2023-11-21 20:22:48), 62–71. https://doi.org/10.1016/j.procs.2021.10.007

Fadillah, R., & Fasa, M. I. (2021). Digital Economic Transformation: Optimalisasi Ekonomi Digital Pasca Pandemi Covid-19 Pada Pelaku Umkm. *MANOR: JURNAL MANAJEMEN DAN ORGANISASI REVIEW*, *3*(2), 123–135.

Firdaus, I. T., Tursina, M. D., & Roziqin, A. (2021). Transformasi Birokrasi Digital Di Masa Pandemi Covid-19 Untuk Mewujudkan Digitalisasi Pemeritahan Indonesia. *Kybernan: Jurnal Studi Kepemerintahan*, *4*(2), 226–239.

Latifah, N. L. D., Adzam, M., & Vidiastuti, D. P. (2024). Strategi Transformasi Digital: Inovasi Program Tuka Tuku Purbalingga. *Matra Pembaruan: Jurnal Inovasi Kebijakan*, *8*(1), 17–30.

Li, H. H. (2019). Lexicon development and quantitative descriptive analysis of Hunan fuzhuan brick tea infusion. *Food Research International*, *120*(Query date: 2023-11-30 17:17:26), 275–284. https://doi.org/10.1016/j.foodres.2019.02.047

Maharani, I. M., Muhaimin, A. W., & Pratiwi, D. E. (2022). Strategi Sistem Pemasaran Dalam Menghadapi Society 5.0 (Studi Kasus: BUMDes Sumber SEjahtera, Desa Pujon Kidul, Kabupaten Malang). *Jurnal Ekonomi Pertanian dan Agribisnis*, *6*(4), 1655–1670.

Novitasari, A. T. (2022). *Strategi UMKM Bertahan di Masa Pandemi*. Deepublish.

Pangiuk, A. (2019). Strategi Adaptasi Pasar Tradisional Dalam Menghadapi Ancaman Ekonomi Masyarakat Ekonomi Asean di Indonesia. *Kontekstualita*, *33*(01), 90–125.

Pertiwi, D. I., Nurbaiti, N., & Dharma, B. (2024). Strategi Pedagang Tradisional Pakaian Fashion Muslim dalam Menghadapi Transformasi Digital Bisnis. *Ganaya: Jurnal Ilmu Sosial dan Humaniora*, *7*(3), 282–293.

Rachbini, W. (2023). *Transformasi Marketing-Tradisional Ke Digital*. CV. AA. Rizky.

Rahayu, R., Aulia, R., Atriani, E., Nurhayati, N., Arni, A., & Arsal, M. (2024). Transformasi Digital Terhadap Peran Akuntan Sebagai Konsultan Digital: Dampak Sosial Dan Ekonomi Terhadap Pengembangan Industri Dan Ekonomi Digital. *IJMA (Indonesian Journal of Management and Accounting)*, *5*(2), 285–293.

Rahman, F. A., Jaelani, J., & Suharyat, Y. (2024). Strategi Pengembangan Sumber Daya Manusia dalam Disrupsi Teknologi Informasi. *NUSRA: Jurnal Penelitian dan Ilmu Pendidikan*, *5*(1), 61–70.

Sharmistha, N. N. P., & Sinambela, F. C. (2023). *Inovasi Batik Berbasis Teknologi dan Kinerja Adaptif: Membangun Keberlanjutan Industri Batik*. *5*(1), C–03.

Telagawathi, N. L. W. S., Suci, N. M., & Heryanda, K. K. (2022). Strategi Transformasi Digital Umkm Kerajinan Tangan Pada Masa Pandemi Covid-19 Di Kabupaten Gianyar, Bali. *Jurnal Ilmu Sosial dan Humaniora*, *11*(2), 204–212.

Tsakila, N. F., Wirahadi, M. A., Fadilah, A. A., Simanjuntak, H., & Siswajanty, F. (2024). Analisis Dampak Fintech terhadap Kinerja dan Inovasi Perbankan di Era Ekonomi Digital. *Indonesian Journal of Law and Justice*, *1*(4), 11–11.

Tukiran, M. (2024). Strategi Adaptasi Organisasi dalam Menghadapi Tantangan Pandemi Covid-19 terhadap Praktik Sumber Daya Manusia: Analisis dari Konteks Global. *International Journal of Social and Management Studies*, *5*(3), 1–8.

Wahyudi, A., Assyamiri, M. B. T., Al Aluf, W., Fadhillah, M. R., Yolanda, S., & Anshori, M. I. (2023). Dampak transformasi era digital terhadap manajemen sumber daya manusia.

Jurnal Bintang Manajemen, *1*(4), 99–111.

Wijaya, E. Y., Sudjimat, D. A., & Nyoto, A. (2016). *Transformasi pendidikan abad 21 sebagai tuntutan pengembangan sumber daya manusia di era global*. *1*(26), 263–278.

Wulandari, D. S., & Tumanggor, A. H. U. (2024). *Transformasi Digital pada Pasar Tradisional*. Penerbit NEM.