



# Disruption in The Industrialized Higher Education Has An Impact on The Quality of Higher Education and Also The Human Resources of Their Graduates

**Arfie Yasrie\***

Sekolah Tinggi Ilmu Manajemen Banjarmasin, Indonesia

Email : [arfie.stimibjm@gmail.com](mailto:arfie.stimibjm@gmail.com)

DOI: <https://doi.org/10.61987/jemr.v4i4.1108>

---



---

## ABSTRACT

### Keywords:

Disruption, Higher Education, HR Quality, Industrialization, World of Work

---

\*Corresponding Author

This study explores the profound impact of the disruption caused by the industrialization of higher education on the quality of educational institutions and the human resources (HR) of their graduates. Employing a descriptive exploratory approach, the research combines a comprehensive literature review with direct observations of the subjects involved. The descriptive method aims to illustrate the challenges and phenomena arising from the industrialization of higher education, while the exploratory approach delves into the conceptual underpinnings of this disruption. The literature review draws upon scientific journals, books, and online resources to gather relevant data, while participant observation provides firsthand insights from the researcher's experience as a lecturer. The findings reveal that the industrialization of higher education has significantly influenced both the quality of academic institutions and the capabilities of their graduates. The study concludes with recommendations for governments and educational bodies to enhance the quality of higher education and its graduates, ensuring they are better equipped to compete in the global workforce.

---

### Article History:

Received: May 2025; Revised: June 2025; Accepted: July 2025

### Please cite this article in APA style as:

Yasrie, A. (2025). Disruption In The Industrialized Higher Education Has An Impact On The Quality Of Higher Education And Also The Human Resources Of Their Graduates. *Journal of Educational Management Research*, 4(3), 1327-1338.

---



---

## INTRODUCTION

The rapid transformation of higher education in Indonesia, driven by the industrialization of campuses, has significant implications for the wider community. As universities shift toward self-financing models, the pressure to attract students has intensified, leading to an increasingly commercialized education. This shift is crucial not only for educational institutions but also for society as a whole, as the quality of graduates directly impacts the workforce. Evidence suggests that the number of university graduates in Indonesia is

increasing, but the unemployment rate remains high, indicating a mismatch between educational needs and industry requirements. This research is necessary because it aims to explore the disruption caused by the industrialization of higher education and its impact on both the quality of teaching and the employability of graduates. Understanding this issue can help policymakers, universities, and stakeholders improve the quality of education, making it more relevant to the demands of the labor market and contributing to national development.

The primary issue facing higher education in Indonesia today is the growing commercialization of education, which has led to a decline in quality. Since the New Order era, significant policy shifts have prompted universities to become self-sustaining, resulting in a heavy reliance on tuition fees as their primary revenue source. While this has allowed universities to maintain financial independence, it has also created an environment where financial considerations often overshadow academic quality. The need to attract more students has led to lower admission standards in many institutions, undermining the value of a degree. Additionally, the emphasis on profitability has contributed to a widening gap between the skills universities impart and the demands of the job market, resulting in high unemployment rates among graduates.

The phenomenon of declining educational quality is particularly evident in the growing gap between the number of graduates and available jobs. Universities across Indonesia, both state and private, are producing an ever-increasing number of graduates, but the job market cannot absorb them. According to the Ministry of Education, in 2022, higher education institutions in Indonesia produced approximately 1.5 million graduates, yet only about 300,000 job openings were available each year. This discrepancy has led to a surplus of unemployable graduates, despite their academic qualifications. Furthermore, many top universities have relaxed their admission standards, with financial capability becoming a more significant factor than academic potential. This shift has diluted the value of university degrees, leading to widespread concerns about the overall quality of education.

Previous research has highlighted the increasing commercialization of higher education and its negative impact on academic quality. Studies such as those by Zamroni (2008) and Unwanullah (2015) emphasize how the pursuit of profit has affected the way universities operate, often at the expense of educational standards. They argue that the transition to a market-driven system has led universities to view students as customers, resulting in a focus on financial gain rather than educational excellence. However, while these studies provide valuable insights, a lack of comprehensive research remains, directly linking the industrialization of higher education to the specific decline in human resource quality among graduates. This research gap is significant, as it overlooks

the deeper systemic issues within the higher education industry and their implications for the workforce.

Further studies, including those by Ekasari et al. (2021), acknowledge the role of disruption in education, but focus more on the technological aspects, such as online learning, rather than the broader socio-economic factors influencing the industrialization of higher education. These studies suggest that the move towards digital learning platforms has improved access to education but has also led to challenges, particularly in ensuring the quality of learning. While technological innovations have their benefits, they cannot fully address the root causes of educational decline, such as the emphasis on profitability and the reduction in academic rigor. Our research aims to fill this gap by examining the multifaceted effects of industrialization on both education quality and graduate employability, proposing solutions that could help bridge the divide between academia and industry.

The novelty of this research lies in its focus on the disruptive effects of industrializing higher education. This topic has not been thoroughly explored in the context of Indonesia's current educational landscape. By examining both the technological and socio-economic factors at play, this research aims to provide a more comprehensive understanding of how industrialization affects the quality of education and the employability of graduates. It is crucial to address these issues as they not only affect individual career prospects but also hinder the nation's ability to compete on the global stage. The findings from this study can inform policy reforms that prioritize quality over profit, ensuring that higher education institutions produce graduates who are not only employable but also capable of contributing to sustainable national development.

The research problem is rooted in understanding the effects of higher education industrialization on both educational quality and human resource development. Specifically, it aims to investigate how the commercialization of education has compromised academic standards and contributed to an increase in unemployable graduates. Our preliminary argument is that while universities are increasingly focused on financial sustainability, they have neglected the long-term impact of this shift on educational outcomes and graduate employability. This research will provide evidence that the industrialization of higher education, if left unchecked, will continue to undermine the quality of education and the workforce, exacerbating unemployment and reducing the value of higher education in the eyes of employers.

The contribution of this research is twofold. First, it will offer a comprehensive analysis of the industrialization of higher education and its impact on educational quality and graduate employability, providing valuable insights into how universities can better align their goals with the needs of the

labor market. Second, this study will propose recommendations for policymakers, universities, and educational stakeholders to create a more balanced approach to education—one that prioritizes both financial sustainability and the development of high-quality graduates. By addressing this issue, the research will help improve the quality of higher education, ensuring that graduates are equipped with the skills and knowledge necessary to thrive in a competitive global workforce.

## RESEARCH METHOD

This research uses a qualitative approach, as explained by (Sugiyono, 2016) that qualitative research is conducted in natural settings, directly to data sources, and is predominantly word-based, not numerical, with the researcher as the key instrument. This research is descriptive and exploratory in nature. The descriptive approach is used to explain problems or phenomena related to the disruption of higher education industrialization, while the exploratory approach is used to conceptually describe how the disruption of higher education industrialization occurs (Khaeriyah, et al., 2025). The nature of this research is descriptive and exploratory, namely research that attempts to describe a phenomenon, event, or occurrence that is occurring currently. In other words, descriptive research addresses or focuses on actual problems as they exist at the time the research is conducted (Sudjana, 2004).

The literature study method is carried out by searching for research data or information by reading scientific journals, reference books and published materials available in libraries and the internet. Researchers use the library research method, namely by collecting information or scientific writings directed at the research object, or collecting theoretical references of a bibliographic nature, or research conducted to determine a fundamental problem solving, and then conducting a critical and in-depth analysis of relevant library materials, including libraries and theoretical conceptual ideas (Sugiyono, 2019). According to (Syafri, 2019), the library research method is research by collecting materials and theories contained in the literature and other sources related to the problem discussed. This study also uses the Participant Observation technique, this observation was carried out by researchers while digging for information by becoming active lecturers at various other universities (Mohdari et al., 2024).

## RESULT AND DISCUSSION

### Result

Quoting Jack Ma's statement at the 2018 World Economic Forum annual meeting, education is a major challenge of this century. If we don't change the way we teach and learn in the next 30 years, we will face significant challenges.

Advances in science and technology, coupled with the increasingly rapid flow of disruption First, easier access to educational information has become a hallmark of this disruption. With the rise of online platforms, educational resources are now more readily available, allowing students from various backgrounds to access knowledge without the traditional barriers of location and financial constraints. Furthermore, disruption in education encourages the creation of professionals who meet international standards in their respective fields. The ability to study and collaborate on a global scale ensures that education systems can mold individuals who are competitive on the world stage.

Moreover, this disruption allows Indonesian education to step up its game, enhancing its competitiveness with developed countries. With access to global learning tools and resources, Indonesian institutions are beginning to align more closely with global educational standards, thus creating a workforce that is not only highly skilled but also equipped to face global challenges. This can foster the emergence of a qualified workforce capable of competing globally, thereby contributing to Indonesia's socio-economic growth.

#### Negative Impacts of Disruption in Education

However, the disruption also carries negative consequences that cannot be ignored. One of the primary concerns is the potential for local and foreign capitalists to exert significant control over Indonesian education. With the commercialization of learning, there's a risk that education will become a commodity, with access determined by financial means rather than merit or need. This would lead to unequal access and growing educational inequality.

Additionally, the increasing dependence on technology in education gives rise to what can be termed as a "tradition of instant gratification." As students turn to quick answers and immediate results through digital tools, they may lose the ability to engage in deep, reflective learning processes. This shift toward convenience could undermine the development of critical thinking and problem-solving skills, which are crucial for personal and professional growth.

Disruption could also exacerbate existing stratifications within education. Those who can afford the best technological tools and private learning resources will continue to benefit, while others, particularly from lower-income backgrounds, may be left behind, deepening the educational divide. Furthermore, as foreign cultures and technologies flood the education system, there is a risk that local culture will be increasingly eroded. Traditional values and local knowledge may be overshadowed by Western ideals, which could diminish the cultural diversity that has historically shaped Indonesia's educational landscape.

Lastly, with the rise of privatization and external investments, the state's control over education is likely to weaken. As educational institutions become

more profit-driven, the government's role in regulating and ensuring the accessibility and quality of education could diminish, leading to a less equitable and more fragmented system. This shift could ultimately undermine the original purpose of education as a public good, available to all regardless of their socio-economic background. The disruption of the industrialization of higher education has caused many campuses to only pursue student numbers to obtain large UKT without strict screening during new student admissions. Competition between universities to attract as many students as possible has resulted in a decline in the quality of these universities, such as fraud during new student admissions, giving high grades so that students are categorized as smart because they have a high Cumulative Achievement Index (GPA) and even the ease of obtaining a diploma as long as they are willing to pay a certain amount.

It is undeniable that the Indonesian education sector is not in good shape, with the high number of educated unemployed students from diploma, undergraduate, and even postgraduate levels being a serious concern for the nation today. This is certainly inseparable from changes in the employee recruitment system, both private and public, which prioritizes specialized skills, communication skills, and integrity, which receive less attention from higher education institutions and educational curricula. Students today only pursue diplomas and grades, which are considered essential for getting a job. Furthermore, in terms of communication, many students do not hone their skills during college by being active in internal and external campus organizations. In fact, students tend to just come, sit, be quiet, and graduate (4D) during lectures. In terms of integrity, students today are very poor because they always look at their phones during exams and copy and paste assignments. This has given rise to a generation that is lazy to think and wants to graduate quickly, but many only get a diploma when they graduate.

## Discussion

The effectiveness of higher education in Indonesia has been a subject of growing concern, particularly regarding its alignment with the labor market's demands. According to Djamaris (2018), the success of higher education institutions should not only be measured by the graduates' academic achievements or their ability to master knowledge, skills, and attitudes, which are reflected in the Achievement Index. It is equally important to examine the outcomes—specifically, how well these graduates are integrated into the workforce. Graduate absorption in the labor market, along with entrepreneurship, serves as a critical indicator of the success of higher education in preparing students for professional life. Djamaris emphasizes that the actual value of education lies in its ability to produce employable graduates, not just in terms of their academic credentials, but also their ability to contribute meaningfully to the workforce.

Furthermore, the success of an academic program is not solely determined by the content it delivers but also by how well it prepares students to meet the demands of the labor market. According to Maghamil (2025), the work ability of graduates, which determines the effectiveness of higher education programs, plays a vital role in ensuring that the degrees awarded hold value in the job market. This raises the need for educational institutions to continuously evaluate and adapt their curricula to better align with industry requirements. It also highlights the importance of developing essential skills for career success, including problem-solving, critical thinking, and technical competencies.

Research by Camuyong et al. (2023) underlines that higher education equips students with the knowledge and skills needed to excel in their professional fields. By providing quality teaching, conducting relevant research, and engaging in significant community extension activities, academic institutions shape students into competent professionals who are ready to meet the demands of both the local and global job markets. However, as Nurhazanah and Pujiati (2024) pointed out, many graduates struggle to enter the workforce due to a lack of experience. Companies often prefer hiring candidates who already have hands-on experience, which poses a significant obstacle for fresh graduates. This mismatch between education and employment expectations highlights a critical gap that universities must address to improve graduate employability.

As direct participant observations from Yanti et al. (2024) reveal, education forms the cornerstone of human resource development. The rapid pace of technological advancements demands that higher education institutions equip students not only with knowledge but also with the creativity, innovation, and efficiency needed to thrive in a competitive job market. Higher education

institutions must play a pivotal role in producing graduates who are capable of adapting to the evolving demands of the workforce and contributing to the broader socio-economic development of the country.

However, the challenge of connecting education to employability remains a core issue for academic institutions worldwide. Alvarez & Cammayo (2023) argue that higher education must address this challenge by bridging the gap between academic learning and the real-world skills required by employers. Universities must provide students with more than just theoretical knowledge; they must prepare them for the transition from students to workers by equipping them with practical skills and attributes such as teamwork, communication, and time management. The ability to work collaboratively, organize tasks, and adapt to new environments are essential attributes that are often not adequately covered in traditional university curricula but are increasingly valued by employers.

Additionally, universities should foster an environment that encourages the development of well-rounded individuals. As Liriwati et al. (2019) suggest, higher education should focus not only on intellectual growth but also on forming attitudes that promote effective social integration. Students must engage in extracurricular activities, hone their leadership skills, and participate in organizational experiences that prepare them for their professional roles. The emphasis should be on cultivating data literacy, technology literacy, and human literacy—skills that are increasingly critical in today's digital and interconnected world.

Research by Muhson et al. (2012) underscores the growing need for education systems to align with the competencies required by the workforce. The increasing rate of unemployment among educated individuals underscores the need to adapt educational programs to meet labor market demands. The unemployment rate among educated people in Indonesia, which increased from 5.7% in 2004 to 12% in 2009, reveals a disturbing trend. This upward trajectory suggests that, despite the increasing number of graduates, many are still unable to secure meaningful employment. Addressing this issue requires universities to reassess their approach to education, ensuring that graduates possess the skills, experience, and adaptability necessary to succeed in an ever-evolving job market.

In conclusion, while higher education institutions have made strides in providing knowledge and skills, the widening gap between academic preparation and industry expectations highlights the need for systemic reforms. Universities must work collaboratively with industries to ensure their graduates are not only knowledgeable but also equipped with practical skills that make them highly employable. By addressing these challenges, higher education can better serve its purpose of producing competent, adaptable professionals who

can thrive in the workforce and contribute to the country's development.

## CONCLUSION

From this research, it can be concluded that the disruption of the industrialization of higher education has impacted the quality of higher education institutions and the human resources of their graduates. This is because higher education institutions compete to attract as many students as possible to obtain a large Single Tuition Fee (UKT) per student population. Competition in student admissions between universities results in relaxed admission requirements and the offering of sweet promises to new students. This has a significant impact on students, as they feel they are being fought over for university space, leading them to work less hard to attend their chosen university. Furthermore, students feel important because they pay a substantial amount of money to secure a place at university, and ultimately believe that everything, including graduation, can be controlled with money.

The current higher education system, which readily accepts students and places high marks on study result cards (KHS) to pursue accreditation and financial gain, has led to students under-investing in their academic pursuits. The current phenomenon is that many students become unemployed upon graduation due to a lack of mastery of knowledge, a lack of integrity, and a lack of competitiveness in finding employment. The increasing intellectual unemployment and lack of job opportunities further darken the current outlook for higher education. This phenomenon is evident in the large number of online motorcycle taxi (Ojol) drivers with bachelor's and even postgraduate degrees. Another phenomenon that requires us to evaluate the current education system is the mental weakness of many Generation Z members under pressure to complete their work. The government and higher education institutions must work together to address this issue.

## REFERENCES

- Aditya, M. R., Karyawati, L., & Karnia, N. (2023). Perubahan Sosial Akibat Industrialisasi Dilihat dari Aspek Pendidikan. *Jurnal Pendidikan Tambusai*, 7, 13105–13113. <https://mail.jptam.org/index.php/jptam/article/view/8472>
- Alvarez, M. T. S., & Cammayo, E. U. (2023). A graduate's employability study of bachelor of science in entrepreneurship of Isabela State University, Philippines. *International Journal of Evaluation and Research in Education*, 12(1), 164–173. <https://doi.org/10.11591/ijere.v12i1.22841>
- Biro Perekonomian Sekretariat Daerah Pemerintah Provinsi Jawa Timur. (n.d.). *Jumlah mahasiswa lulusan perguruan tinggi di Indonesia terus bertambah, namun lapangan kerja yang tersedia tidak berbanding lurus*. RoEkonomi. Retrieved July 19, 2025, from <https://ro-ekonomi.jatimprov.go.id/berita/1686840825-jumlah-mahasiswa-lulusan-perguruan-tinggi-di-indonesia-terus-bertambah-namun-lapangan-kerja-yang-tersedia-tidak-berbanding-lurus>
- Camuyong, C. S. F., Decena, C. F., Reyes, K. C., Malong, M. R., Gregorio, M. C. L., Magtalas, S. A., & Adlawan, J. E. (2023). College of Arts and Sciences Graduates' Performance: A Tracer Study. *International Journal of Multidisciplinary: Applied Business and Education Research*, 4(5), 1618–1631. <https://doi.org/10.11594/ijmaber.04.05.23>
- candara.us. (2024). *Jumlah Lulusan Sarjana di Indonesia*. Candra,Us. <https://www.candra.us/2024/12/17/jumlah-lulusan-sarjana-di-indonesia/>
- Djamaris, A. R. . (2018). Korelasi Antara Kompetensi Dan Kontribusi Universitas Terhadap Keterampilan Dan Kompetensi Alumni. *Journal of Entrepreneurship, Management and Industry (JEMI)*, 1(01), 1–8. <http://bit.ly/TracerStudyUnivBakrie%0Ahttp://jurnal.bakrie.ac.id/index.php/JEMI/article/view/1786>
- Eka Fitrianti, Saipul Annur, A. (2024). Revolusi Industri 4.0: Inovasi dan Tantangan dalam Pendidikan di Indonesia. *Journal of Education and Culture*, 4(1), 28–35.
- Ekasari, R., Denitri, F. D., Rodli, A. F., & Pramudipta, A. R. (2021). Analisis Dampak Disrupsi Pendidikan Era Revolusi Indsutri 4.0. *Ecopreneur*.12, 4(1), 110. <https://doi.org/10.51804/econ12.v4i1.924>
- Gines, A. (2014). Tracer study of PNU graduates. *American International Journal of Contemporary Research*, 4(3), 81–98.
- Ilma Siti Salamah, Rifqi Taufiqul Hakim, & Lahera, T. (2023). Pengaruh Penerapan Kebijakan Merdeka Belajar Di Perguruan Tinggi. *Dirasah : Jurnal Studi Ilmu Dan Manajemen Pendidikan Islam*, 6(1), 11–19. <https://doi.org/10.58401/dirasah.v6i1.608>
- Khaeriyah, Fie, Effiyaldi, S., & Safitri, N. A. (2025). Literature Study and Direct

- Participant Observation of The Impact of Online Loans on Society. *Optimal: Jurnal Ekonomi Dan Manajemen*, 5(1), 82–98. [https://doi.org/Abstractonline loans work](https://doi.org/Abstractonline%20loans%20work).
- Kohlberg, L. . (2005). *Tahap-tahap Perkembangan Moral* (Penerbit Kanisius (ed.); Pertama). Penerbit Kanisius.
- Lin, C. H., Chen, J. H., Lin, E. S., & Lo, C. O. (2022). The Effects of College Student Experience on Degree Aspirations for Graduate Education. *SAGE Open*, 12(3). <https://doi.org/10.1177/21582440221117798>
- Liriwati, F. Y., Rulitawati, & Zulhimma. (2019). Revolusi perguruan tinggi di era revolusi industri 4.0. *Prosiding Seminar Nasional Pendidikan Program Pascasarjana Universitas PGRI Palembang*, 280–288.
- Maghamil, C. W. (2025). Graduate Education and Its Influence on Employability and Career Progression: A Tracer Study of La Salle University Graduates. *Asian Journal of Education and Social Studies*, 51(1), 70–78. <https://doi.org/10.9734/ajess/2025/v51i11727>
- Meke, K. D. P., Astro, R. B., & Daud, M. H. (2021). Dampak Kebijakan Merdeka Belajar Kampus Merdeka (MBKM) pada Perguruan Tinggi Swasta di Indonesia. *Edukatif: Jurnal Ilmu Pendidikan*, 4(1), 675–685. <https://doi.org/10.31004/edukatif.v4i1.1940>
- Mohdari, Fahmi, M., Safitri, N. A., & Syafril. (2024). Market Analysis and Consumer Behavior of Indomaret Minimarkets in Banjarmasin City. *International Journal of Business and Applied Economics*, 3(2), 299–310. <https://doi.org/10.55927/ijbae.v3i2.8077>
- Muhammad Yasin, yordan Rendis Suherman, T. A. N. (2023). *Analisis Perkembangan Industrialisasi Era*. 1(3), 169–182.
- Muhson, A., Wahyuni, D., Supriyanto, & Mulyani, E. (2012). ANALISIS RELEVANSI LULUSAN PERGURUAN TINGGI DENGAN DUNIA KERJA Analisis Relevansi Lulusan Perguruan Tinggi dengan Dunia Kerja. *Jurnal Economia*, 8(1), 42–52.
- Nugroho, N. E., Irianto, J., & Suryanto, S. (2024). a Systematic Review of Indonesian Higher Education Students' and Graduates' Work Readiness. *Jurnal Ilmiah Ilmu Terapan Universitas Jambi*, 8(1), 350–363. <https://doi.org/10.22437/jiituj.v8i1.33073>
- Nurhazanah, S. N., & Pujiati, H. (2024). Strategi freshgraduate dalam menghadapi dunia kerja literature review. *HUMANIS: Humanities, Management and Science Proceedings*, 4(2), 1246–1257. <http://www.opel>
- Omah Rohmah, . dkk. (2020). Dampak Industrialisasi Terhadap Pendidikan, Ekonomi, dan Keagamaan Di Desa Banjaran Sumber Jaya Majalengka. *Etos: Jurnal Pengabdian Masyarakat*, 2(1), 50–56.
- Purba, C. B. (n.d.). *Industri Pendidikan Tinggi Di Indonesia*. E-

- Learning.Stmi.Ac.Id*, 20, 1–21. [http://e-learning.stmi.ac.id/assets/uploads/blog\\_dosen/bb082-Jurnal-Industri-Pendidikan.docx](http://e-learning.stmi.ac.id/assets/uploads/blog_dosen/bb082-Jurnal-Industri-Pendidikan.docx)
- Rosmiati, R., Putra, I. & Ahmad Nasori, A. (2021). Pengukuran Mutu Pembelajaran Di FKIP UNJA Dalam Upaya Membangun Generasi Economic Citizen Yang Mengelaborasi Program MBKBM Kemendikbud. *Edukatif: Jurnal Ilmu Pendidikan*, 3(6), 5256–52264. <https://doi.org/10.31004/Edukatif.V3i6.1356>
- Shelly Andari, Aditya Chandra Setiawan, Windasari, & Ainur Rifqi. (2021). Educational Management Graduates: A Tracer Study from Universitas Negeri Surabaya, Indonesia. *IJORER: International Journal of Recent Educational Research*, 2(6), 671–681. <https://doi.org/10.46245/ijorer.v2i6.169>
- Siregar, N., Sahirah, R., & Harahap, A. A. (2020). Konsep Kampus Merdeka Belajar di Era Revolusi Industri 4.0. *Fitrah: Journal of Islamic Education*, 1(1), 141–157. <https://doi.org/10.53802/fitrah.v1i1.13>
- Sugiyono. (2016). *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, Dan R&D*. Alfabeta.
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (Alfabeta (ed.); 27th ed.). Alfabeta.
- Syafril. (2019). Informasi Contribution Margin Sebagai Alat Perencanaan Laba Bagi Manajemen. *Jurnal Riset Akuntansi*, 3 (1)(Akuntansi Manajemen).
- Titi Andriyani, Yusnizal Firdaus, U. (2021). DAMPAK REVOLUSI INDUSTRI 4.0 PADA DUNIA PENDIDIKAN DI POLITEKNIK NEGERI SRIWIJAYA. (*Jurnal Aplikasi Manajemen & Bisnis*), 1(2), 78–86.
- Unwanullah, A. (2015). Industrialisasi Dan Tantangannya Pada Sektor Pendidikan. *Jurnal Economia*, 11(2), 107. <https://doi.org/10.21831/economia.v11i2.8237>
- Yanti, D., Prastawa, S., Utomo, W. F., Wiliyanti, V., & Utomo, B. (2024). Pendidikan di Revolusi Industri 4.0: Studi Kasus Evaluasi Kurikulum Merdeka di Indonesia. *Edu Cendikia: Jurnal Ilmiah Kependidikan*, 4(02), 380–390. <https://doi.org/10.47709/educendikia.v4i02.4471>
- Zamroni, M. I. (2008). Industrialisasi Pendidikan Tinggi. *Unisia*, 31(67), 77–87. <https://doi.org/10.20885/unisia.vol31.iss67.art8>