



sutrisno upgris <sutrisno@upgris.ac.id>

[IMEIJ] Editor Decision

1 pesan

ejournal@indo-intellectual.id <ejournal@indo-intellectual.id>

26 Agustus 2023 pukul 04.34

Balas Ke: Kapraja Sangadji <16sangadji@gmail.com>

Kepada: Sutrisno Sutrisno <sutrisno@upgris.ac.id>

Sutrisno Sutrisno:

We have reached a decision regarding your submission to Indo-MathEdu Intellectuals Journal, "Strategies for Utilising Educational Technology to Improve the Competitiveness of Student Small Businesses".

Our decision is: Revisions Required

[Indo-MathEdu Intellectuals Journal](#)



A-Vale Review-imeij-review-assignment-198-Article+Text-1142.docx

66K

STRATEGIES FOR UTILISING EDUCATIONAL TECHNOLOGY TO IMPROVE THE COMPETITIVENESS OF STUDENT SMALL BUSINESSES

xxx¹
¹xxx
Email: xxx

Article History

Received: xx-xx-xxx

Revision: xx-xx-xxx

Accepted: xx-xx-xxx

Published: xx-xx-xxx

Abstract. In the era of globalisation and advances in information technology, competition in various business sectors is increasingly fierce, including in the world of small businesses. On the other hand, higher education also faces the challenge of preparing students to become graduates who have high competitiveness in the ever-changing labour market. The purpose of this study is to explain the strategy of utilising educational technology to improve the competitiveness of students' small businesses. This research is a literature review that uses a qualitative method approach, which means it will analyse and interpret data by relying on information and text from various sources. The study results show that the integration of educational technology has a significant positive impact on the growth of small businesses as well as students' readiness to face competition in the global market. Through technology-based education, students are given the opportunity to deepen their knowledge of business aspects, develop relevant technological skills, and design smarter strategies. Technology adoption supports operational efficiency with automation of routine tasks, more accurate inventory management, and better financial management. The utilisation of technology also provides opportunities for innovation in products, services, and business processes, which in turn helps small businesses to compete better in the marketplace.

Keywords: Educational Technology, Competitiveness, Small Business, Students

Abstrak. Dalam era globalisasi dan kemajuan teknologi informasi, kompetisi di berbagai sektor bisnis semakin ketat, termasuk dalam dunia usaha kecil. Di sisi lain, pendidikan tinggi juga menghadapi tantangan untuk mempersiapkan mahasiswa menjadi lulusan yang memiliki daya saing tinggi di pasar kerja yang terus berubah. Tujuan penelitian ini untuk menjelaskan strategi pemanfaatan teknologi pendidikan untuk meningkatkan daya saing usaha kecil mahasiswa. Penelitian ini merupakan kajian literatur yang menggunakan pendekatan metode kualitatif, yang berarti akan menganalisis dan menginterpretasikan data dengan mengandalkan informasi dan teks dari berbagai sumber. Hasil studi menunjukkan bahwa integrasi teknologi pendidikan memiliki dampak positif yang signifikan terhadap pertumbuhan usaha kecil serta kesiapan mahasiswa dalam menghadapi persaingan di pasar global. Melalui pendidikan berbasis teknologi, mahasiswa diberikan kesempatan untuk memperdalam pengetahuan mereka tentang aspek-aspek bisnis, mengembangkan keterampilan teknologi yang relevan, dan merancang strategi yang lebih cerdas. Adopsi teknologi mendukung efisiensi operasional dengan otomatisasi tugas-tugas rutin, pengelolaan inventaris yang lebih akurat, dan pengelolaan keuangan yang lebih baik. Pemanfaatan teknologi juga memberi peluang bagi inovasi dalam produk, layanan, dan proses bisnis, yang pada gilirannya membantu usaha kecil untuk bersaing lebih baik di pasar.

Kata Kunci: Teknologi Pendidikan, Daya Saing, Usaha Kecil, Mahasiswa

How to Cite: xxx (2023). Strategies for Utilising Educational Technology to Improve the Competitiveness of Student Small Businesses. *Indo-MathEdu Intellectuals Journal*, x (x), xx-xx.

INTRODUCTION

In the contemporary era of globalisation and rapid advancements in information technology (Mahardhani, 2023), there has been a notable escalation in competitiveness across diverse economic sectors, encompassing the realm of tiny enterprises (Ausat et al., 2023). The advent of technology has facilitated worldwide market connectivity, enabling small enterprises to effectively compete on a broader scope (Sudirjo, 2023; Wahyoedi et al., 2023). The aforementioned factor stimulates enhancements in the quality of products, services, and innovation in order to sustain relevance in the face of fierce competition. In order to enhance operational efficiency, implement more impactful marketing strategies, and gain a comprehensive understanding of market trends and consumer preferences, it is imperative for small businesses to embrace technological solutions (Harahap, Suherlan, Rijal, et al., 2023; Rijal et al., 2023; Sudirjo, Ausat, et al., 2023). In the absence of adjusting to these developments, small enterprises may encounter difficulties in their survival and expansion within this changing commercial landscape.

Furthermore, the realm of higher education is confronted with the task of equipping students with the necessary skills and knowledge to emerge as exceptionally competitive individuals within an evolving job market. The dynamic nature of technology and evolving labour market requirements necessitate the incorporation of practical skills, problem-solving abilities, and adaptability into the academic curriculum of institutions (Fauzi et al., 2023). The objective is to guarantee that graduates with the necessary skills and knowledge to effectively navigate a wide range of job difficulties that are characterised by diversity and constant change upon completing their education (Harahap, Ausat, Sutrisno, et al., 2023; Harini et al., 2023; Prastyaningtyas, Sutrisno, et al., 2023). In light of the COVID-19 pandemic, the incorporation of technology in the realms of education and business has assumed heightened significance, serving as a crucial means to ensure the preservation of continuity and the ability to adapt.

Small enterprises frequently encounter constraints in relation to their resources, capital, and market penetration. The aforementioned constraints may encompass financial constraints (Hermansyah, 2023; Salamah, 2023; Sukenti, 2023), deficiencies in labour resources, and limitations in expanding market reach. Given the finite nature of resources, it is imperative for small enterprises to exercise prudence in the allocation of their existing resources to ensure optimal operational effectiveness and efficiency. Furthermore, it is imperative for individuals to devise innovative strategies to address these constraints, including using technological

advancements, engaging in collaborative efforts, and targeting niche market niches. Nevertheless, it is important to recognise that students possess a considerable capacity for creativity and an entrepreneurial mindset, which can be effectively utilised to stimulate the local economy and make valuable contributions to the overall economic advancement of the nation (Harahap, Sutrisno, Raharjo, et al., 2023). Hence, the implementation of efficient tactics aimed at enhancing the competitiveness of small firms operated by students can significantly contribute to the resolution of economic difficulties and the promotion of job opportunities.

Educational technology, commonly known as EduTech, has significantly and profoundly influenced the evolution of education systems across many levels, ranging from basic to higher education. The incorporation of technology in education has the potential to bring about substantial transformations in teaching and learning methodologies, leading to a more dynamic, adaptable, and efficient educational setting (Sarker et al., 2019). The utilisation of educational technology has facilitated enhanced accessibility to educational resources (Azlim et al., 2015). Online access to materials enables students to engage in learning at their convenience and in diverse locations, aligning with their individual preferences and timetables. This holds special significance within the realm of remote education and online-based learning. EduTech facilitates the integration of interactive components, such as movies, simulations, and animations, into the educational process. This instructional approach facilitates the comprehension of intricate concepts by presenting them in a visual format, hence enhancing students' understanding. The incorporation of technology within the realm of education possesses the capacity to enhance students' educational journey and provide them with pertinent proficiencies in the field of technology (Zhang, 2022).

Furthermore, within the contemporary corporate landscape, the advent of technology has precipitated a substantial metamorphosis in the realm of small business administration. By implementing appropriate technological tools and solutions, business proprietors can attain enhanced efficiency and triumph (Berawi, 2018). In the realm of business administration, technology offers management software that enables firm proprietors to enhance their efficacy in overseeing inventories, spending, and various financial facets. Management systems have the capability to offer immediate and up-to-date information regarding the financial well-being of an organisation, hence facilitating improved and expedited decision-making processes (Ohara, 2023; Rijal, 2023; Sari, 2023). Technology plays a significant role in the field of marketing, particularly through the use of digital platforms such as social media (Maitri et al., 2023; Tarigan et al., 2023), websites, and online advertising (Purnomo, 2023). Digital marketing initiatives provide small business owners the opportunity to reach a broader and

more targeted audience at a reduced expense (Harahap, Ausat, & Suherlan, 2023). Digital analytics also enable the tracking and analysis of campaign performance with more precision, facilitating the implementation of strategic adjustments for improved outcomes.

Further investigation is required to ascertain the optimal approaches for using educational technology in order to enhance the competitiveness of student-managed small companies. This research aims to address several inquiries that require resolution:

1. What types of educational technology are most relevant and useful in supporting students in developing and managing small businesses?
2. How can the implementation of educational technology help in improving the operational and marketing efficiency of students' small businesses?
3. What is the impact of educational technology utilisation strategies on small business growth and students' readiness to face competition in the market?

This research is expected to provide valuable insights for higher education institutions, student entrepreneurs, and the government in formulating policies that support the development of technology-based small businesses among students. In addition, this study can also contribute to the literature on educational technology, entrepreneurship, and small business management.

METHOD

This study constitutes a literature review that employs a qualitative methodology, hence entailing the analysis and interpretation of data through the utilisation of information and texts derived from diverse sources. The primary objective of a qualitative literature review is to compile, assess, and incorporate pre-existing knowledge pertaining to the subject of investigation, namely strategies for utilising educational technology to improve the competitiveness of small student businesses. This study will gather data from several sources that are pertinent to the subject matter, including scientific journals, books, research papers, and other scholarly materials. The temporal scope of the data encompasses the years 2014 to 2023, affording the researcher the opportunity to observe and analyse the various advancements, trends, and alterations that have transpired during this timeframe.

The utilisation of the qualitative technique in conducting a literature review enables researchers to provide a more comprehensive and detailed description and characterization of intricate and multifaceted matters (Elo et al., 2014). Furthermore, the utilisation of this approach facilitates the incorporation of numerous information sources and encompasses a diverse array of perspectives, hence enhancing the depth of research and bolstering the

Commented [A1]: It needs to be explained in this section, the position of research that has been done previously regarding the use of edutech to increase competitiveness

Commented [A2]: In the methods section, you explain too long about the qualitative approach used. It should be summarized, which relates to the substance of your research.

It should also be added about the source of the article you obtained.

What criteria do you use to determine whether the article is eligible or not for analysis?

What particular techniques do you use to analyze the data?

credibility of the results. The data gathering procedure will entail a rigorous examination of textual material, a thorough search for pertinent information, and the systematic categorization of important data pertaining to the research subject. Following this, the author intends to organise the gathered material in a systematic manner, conduct a comparative analysis of the findings from various sources, and discern recurring patterns, themes, and trends that arise from the amassed data.

One notable benefit of employing a qualitative literature evaluation lies in its inherent adaptability to comprehend and elucidate intricate phenomena, as it is not constrained by numerical or statistical limitations (Rahman, 2016). This approach additionally enables researchers to acquire profound insights on the temporal evolution of the subject matter being investigated, as well as the transformations and shifts in thoughts and understandings pertaining to the subject matter throughout different time periods. In the present study, it is imperative to thoroughly examine the dependability and veracity of the sources employed, while also engaging in a rigorous analysis of the gathered material. According to Bradshaw et al. (2017), while employing a qualitative technique, it is crucial for the researcher to communicate their findings in an impartial and reflective manner, offer clear and correct interpretations, and acknowledge the limits inherent in the methodology and data utilised. The anticipated outcome of this research endeavour is to offer a detailed analysis of the evolution of the subject matter within the specified timeframe of 2014 to 2023. Additionally, it is expected that this study may yield suggestions for future research endeavours that can enhance the comprehension of matters pertaining to the subject.

RESULTS

The integration of education and technology has developed a symbiotic relationship that is integral to the advancement of contemporary civilization. In the realm of small firms, where maintaining a strong competitive edge is crucial, the incorporation of educational technology can serve as a pivotal element in enhancing quality, productivity, and innovation. Aspiring entrepreneurs, who are students, play a crucial part in the execution of this strategic plan.

The integration of technology into the educational curriculum is a key component of the educational technology utilisation strategy (Ramaila & Molwele, 2022). The utilisation of online learning platforms enables students to conveniently access course materials, assignments, and supplementary learning resources with greater flexibility (Liu et al., 2020). The incorporation of multimedia information, such as interactive learning movies and business simulations, has the potential to enhance the educational experience of learners. With

convenient accessibility, students are able to acquire a comprehensive understanding of essential business and management principles.

Moreover, the utilisation of technology can enhance student collaboration and foster active participation in commercial projects (Gopinathan et al., 2022). Collaborative platforms facilitate the engagement of students in virtual teams, enabling them to transcend geographical limitations and cultivate essential interpersonal and leadership proficiencies that are highly valued in the realm of business (Ismaya et al., 2023; Karneli, 2023). Participants get the opportunity to engage in discussions, exchange ideas, and effectively oversee simulated business initiatives that allow for the practical application of acquired principles in a realistic setting. Furthermore, technology has the capacity to broaden pupils' scope of knowledge by providing them with access to worldwide resources. Students have the opportunity to enrol in online courses offered by prestigious universities worldwide, benefiting from the expertise of professionals in their respective fields (Coman et al., 2020). Additionally, they can actively participate in webinars and virtual workshops. This will facilitate the enhancement of individuals' comprehension of global business trends, the most recent advancements in technology, and optimal methodologies within distinct industries (Sutrisno, Ausat, Permana, & Harahap, 2023; Sutrisno, Ausat, Permana, & Santosa, 2023).

The incorporation of technology in educational settings also facilitates the implementation of project-based learning approaches. Students have the opportunity to utilise their learned knowledge in various practical applications, such as the development of tangible business concepts, the execution of market research, the formulation of marketing strategies, and the creation of complete business plans. By receiving advice from academic instructors or experienced business mentors, individuals have the opportunity to refine their analytical, problem-solving, and decision-making abilities, which are crucial in the realm of business (Al Hilali et al., 2020). Furthermore, the integration of educational technology facilitates enhanced monitoring and evaluation of students' academic advancement. Lecturers or mentors have the capability to deliver comments through online platforms, oversee the advancement of pupils in their business projects, and offer recommendations for enhancing their work (Sudirjo, Diantoro, et al., 2023). This approach facilitates the provision of individualised and pertinent assistance to each student, taking into account their unique requirements and capabilities.

To successfully implement this method, it is imperative to establish sufficient technology infrastructure and provide comprehensive training for both educators and students. In order to facilitate effective online learning, it is imperative to have access to a reliable internet connection, sufficient hardware resources, and user-friendly learning systems. Furthermore, it

is imperative to provide consistent training to educators to maintain their proficiency in properly using technology into their instructional practises. Through the implementation of initiatives that use instructional technology, students with aspirations of becoming entrepreneurs can acquire a more comprehensive understanding of business concepts, improve their proficiency in relevant technological competencies, and broaden their professional connections (Sutrisno, Kuraesin, Siminto, Irawansyah, et al., 2023; Touriano et al., 2023). This will equip individuals to confront the obstacles presented by an ever-evolving and fiercely competitive corporate environment. By incorporating technology-enhanced education, student-operated small companies can enhance their readiness for change and emerge as competitive contenders in the global marketplace.

DISCUSSION

In the context of utilising educational technology to improve the competitiveness of student small businesses, it is important to consider several concrete steps:

1. **Continuous Learning:** Educational technology facilitates ongoing learning and skill development for students beyond their graduation (Stehle & Peters-Burton, 2019). Students have the opportunity to avail themselves of supplementary courses, certifications, and online training in order to augment their proficiency in a specific domain. By doing so, individuals can remain up-to-date with advancements in their respective industries and effectively implement the most recent knowledge inside their corporate operations.
2. **Use of Analytics for Decision Making:** Technology plays a pivotal role in facilitating data analysis, hence enhancing the quality of company decision-making processes (Harahap, Sutrisno, Fauzi, et al., 2023). Students get the opportunity to acquire knowledge and skills in the collection, analysis, and interpretation of business data through the utilisation of established analytics technologies. This will assist individuals in making more informed and empirically supported judgements.
3. **Development of Creativity and Innovation Skills:** The utilisation of educational technology has the potential to foster creativity and innovation through facilitating the investigation of novel concepts and ideas (Diawati, Gadzali, Mahardhani, et al., 2023). Students get the opportunity to acquire knowledge in the areas of design thinking, digital brainstorming, and technology-driven product creation. This will facilitate the cultivation of inventive resolutions to corporate obstacles.
4. **Developing Sustainable Business Practices:** Technology plays a significant function in facilitating the instruction of sustainable business practises (Prastyaningtyas, Ausat, et al.,

Commented [A3]: Sentences are made in the form of paragraphs with subheadings, do not use numbering

2023). Students get the opportunity to acquire knowledge and understanding in the areas of resource management, energy efficiency, waste reduction, and corporate social responsibility. This initiative aims to facilitate the establishment of small enterprises that not only generate economic profits but also contribute positively to the environment and society.

5. **Access to Capital and Global Markets:** The utilisation of technology enables students to avail themselves of alternative finance mechanisms, such as crowdfunding or online loans, in order to initiate or expand their small enterprises (Harahap, Ausat, Rachman, et al., 2023). Furthermore, the utilisation of technology enables individuals to engage in online commerce, facilitating the sale of their products or services (Almaududi Ausat et al., 2021). This avenue presents the advantage of accessing the worldwide market without the necessity of establishing a brick-and-mortar retail establishment.
6. **Mentorship and Networking:** The utilisation of technology enables individuals to establish contacts with business mentors and industry specialists via online platforms (Ausat, 2022). Students get the opportunity to establish connections with accomplished entrepreneurs, investors, and industry professionals, thereby gaining access to vital insights and guidance to foster the growth of their small enterprises.
7. **Digital Marketing and Branding:** Students get the opportunity to acquire knowledge on digital marketing tactics, online brand management, and search engine optimisation, thereby augmenting their business' online visibility (Gadzali, Gazalin, et al., 2023). This strategy will facilitate the establishment of a robust brand identity and enable the organisation to expand its reach to a broader demographic.
8. **Adaptation to New Technology:** Students can get instruction on the identification of emerging technology trends, such as artificial intelligence, blockchain, or the Internet of Things, and on the practical application of these trends in the context of business. The capacity to promptly adjust to emerging technology advancements will aid in maintaining the relevance of their firms (Diawati, Gadzali, Abd Aziz, et al., 2023).
9. **Complex Problem Resolution:** By utilising digital information and resources, students are able to acquire the necessary skills to effectively address intricate challenges within the realm of business (Vial, 2019). Users have the ability to obtain case studies, market assessments, and industry research, which may be utilised to inform and guide strategic decision-making processes.
10. **Soft Skills Development:** In addition to its contribution to technical proficiency, educational technology can also facilitate the cultivation of non-technical aptitudes,

including but not limited to proficient communication, effective leadership, adept negotiating, and collaborative teamwork (Basir et al., 2023; Zen et al., 2023). The aforementioned elements hold significant importance in the effective management of a small enterprise, as well as in the cultivation of favourable associations with clientele and business associates.

The application of educational technology has significant promise in empowering students and their small companies. Nevertheless, it is crucial to bear in mind that technology serves as a mere instrument, and the manner in which this instrument is employed is contingent upon the calibre of education and the entrepreneurial perspective of the learner. By adopting an appropriate strategy, educational technology has the potential to serve as a catalyst for the growth and achievement of small businesses among the ever-evolving economic obstacles.

In addition, to answer the next question in the introductory chapter, there are several types of educational technology that are highly relevant and useful in supporting students in developing and managing small businesses. Some of these include:

1. **Online Learning Platform:** Online learning platforms, often known as Learning Management Systems (LMS), facilitate students' access to course materials, assignments, and learning resources through online means. This affords individuals the opportunity to effectively manage their study schedules while maintaining communication with their educators and fellow students (Rotar, 2022). Within the realm of small enterprises, students possess the opportunity to engage in coursework pertaining to business, management, marketing, and other pertinent subjects that contribute to the advancement of their entrepreneurial endeavours.
2. **Multimedia Learning Resources:** The utilisation of multimedia materials, including instructional videos, audio broadcasts, and visual representations, can enhance the efficacy and engagement in conveying business concepts (Tien et al., 2018). This intervention enhances students' comprehension of the subject matter and promotes the development of autonomous learning skills.
3. **Business Simulation and Educational Games:** Business simulations and educational games provide students with the opportunity to engage in practical scenarios and make informed decisions pertaining to business difficulties inside a secure and regulated setting (Heyworth-Thomas, 2023). Individuals have the potential to enhance their analytical, problem-solving, and strategic abilities by engaging in simulations that replicate authentic business scenarios.

Commented [A4]: Sentences are made in the form of paragraphs with subheadings, do not use numbering

4. **Application and Technology Development:** Students get the opportunity to employ application and technology development platforms in order to create technological goods or services that are applicable to their small enterprises (Atrup et al., 2023; Satriadi et al., 2022). The potential applications of this software include a marketing application, an e-commerce platform, or a tailored analytics tool.
5. **Digital Marketing and Social Media:** The utilisation of various technologies within the realm of digital marketing, including but not limited to search engine optimisation (SEO) methods, online advertising, and social media management, plays a crucial role in the successful promotion of small businesses (Jung & Shegai, 2023). It is imperative for students to acquire the knowledge and skills necessary to effectively employ online platforms in order to effectively engage with their intended audience and establish a strong brand presence.
6. **Business Analytics:** It is imperative for students to acquire proficiency in utilising business analytics technologies for the purpose of gathering and evaluating data (Ajah & Nweke, 2019). This aids individuals in comprehending market trends, consumer behaviour, and their business performance, all of which hold significance in making well-informed decisions.
7. **E-commerce and Online Selling Platforms:** It is imperative for students to have a comprehensive understanding of the effective utilisation of e-commerce platforms in order to successfully market and sell their products or services via the internet (Ausat et al., 2022; Yusuf et al., 2022). It is imperative for individuals to possess the knowledge and skills necessary to establish an electronic commerce platform, effectively oversee stock management, streamline payment processes, and deliver a satisfactory purchasing encounter to clientele.
8. **Cyber Security and Privacy:** In the realm of online enterprises, the preservation of cyber security and privacy emerges as key elements (Tariq et al., 2023). It is imperative for students to possess a comprehensive understanding of the potential hazards associated with digital security, as well as the necessary measures to safeguard their customers' data and corporate operations against cyber attacks.
9. **Collaborative Working and Communication:** In order to effectively communicate with their team or business partners, it is imperative for students to acquire proficiency in utilising collaborative working tools, including video conferencing platforms, document sharing applications, and project management systems (Gadzali, Santosa, et al., 2023).

10. **Financial Technology (Fintech):** In the realm of business finance management, it is imperative for students to possess a comprehensive understanding of financial technology, encompassing digital payment systems, online lending platforms, and financial management tools (Baker et al., 2023). These technological advancements serve as instrumental aids in enhancing the efficiency of cash flow management and overall financial operations.

11. **Mentorship and Business Connections:** Online platforms that promote connections with mentors and industry professionals have proven to be crucial in assisting students in acquiring valuable guidance and establishing networks that are advantageous for their business development (Ahmed et al., 2021).

It is crucial to bear in mind that technology functions solely as a tool, necessitating students' comprehension of its integration with their commercial acumen and requirements. The effective management of a small business necessitates the use of critical skills, including but not limited to analytical aptitude, problem-solving capabilities, effective communication, and personal initiative. These talents play a pivotal role in ensuring the successful operation and growth of a small business enterprise.

Furthermore, the implementation of educational technology can have a significant impact in improving the operational and marketing efficiency of small businesses managed by students. Here are some ways in which educational technology can help:

1. Improving Operational Efficiency

- a) **Stock and Inventory Management:** The use of inventory management software can help students in tracking their inventory more accurately. This helps avoid shortages or excess inventory that can be detrimental to the business.
- b) **Financial Management:** Financial apps and software allow students to manage their income, expenses, and cash flow more effectively. This can help in short and long term financial planning.
- c) **Business Process Automation:** Technology can be used to automate routine business processes such as scheduling, payments, and other administrative tasks. This reduces manual labour and allows greater focus on the creative and strategic aspects of the business.
- d) **Project Management:** Project management tools allow students to better organise tasks, deadlines, and team responsibilities. This helps avoid chaos in the project and ensures the project runs smoothly.

Commented [A5]: Sentences are made in the form of paragraphs with subheadings, do not use numbering

- e) **Customer Service:** A chatbot or automated customer support system can help in providing quick responses to customers and answering common queries, thus saving time and resources.

2. Improving Marketing Strategy

- a) **Digital Marketing:** Students can utilise digital marketing platforms to introduce their products or services to a wider target market. The use of online advertising, social media, and analytics tools help optimise marketing campaigns.
- b) **Message Personalisation:** Technology makes it possible to create more personalised marketing messages by collecting and analysing customer data. This helps in delivering more relevant messages and increasing customer engagement.
- c) **Marketing Data Analytics:** Students can use analytics tools to monitor and analyse the performance of their marketing campaigns. This helps them understand what is effective and allows for strategy adjustments based on the data obtained.
- d) **Content Marketing:** Students can utilise blogs, videos, podcasts and other online content to educate customers and build authority in their industry. This helps in attracting customer interest and building strong relationships.
- e) **Automated E-mail Marketing:** An automated e-mail marketing platform allows college students to send scheduled marketing messages to their customers. This helps in maintaining consistent and effective communication.
- f) **Message and Response Analytics:** Students can use analytics to monitor how customers react to their marketing messages. This helps in measuring the effectiveness of the campaign and making improvements if needed.
- g) **Market Segmentation:** Using customer data, students can identify different market segments and customise their marketing messages for each segment. This allows them to create more relevant and effective messages.

It is imperative to acknowledge that the effective integration of educational technology within small enterprises necessitates a comprehensive comprehension of the firm, the market, and optimal utilisation strategies for the technology. The integration of business acumen and technological proficiency will enable students to enhance the efficiency and effectiveness of their small business operations and marketing endeavours.

The strategy of utilising educational technology has a significant impact on the growth of small businesses managed by students and their readiness to face competition in the market. Here are some of the key impacts:

1. Improved Quality of Products and Services

Technology-based education provides students with enhanced opportunities to acquire profound knowledge regarding the industry, market trends, and client demands. This facilitates the development of products or services that align more closely with market expectations and demands. Consequently, small enterprises possess a heightened probability of delivering superior items or services that effectively meet the demands of their customers.

2. Innovation and Differentiation

An educational framework centred around technology additionally fosters the development of creative and innovative thinking among pupils. Individuals are motivated to recognise novel prospects, generate distinctive resolutions, and cultivate concepts that set their enterprises apart from rivals. Through the use of technology, students are equipped with the essential resources to create pertinent and competitive inventions.

3. Effective Use of Resources

The utilisation of technology can effectively enhance the allocation of scarce resources, such as time and human capital. By using appropriate technological solutions, students have the potential to enhance the efficiency of corporate processes, minimise resource wastage, and augment productivity levels. This enables the expansion of their small enterprises without experiencing excessive burdens.

4. Market Expansion

The utilisation of technology enables small firms to effectively engage with clients across diverse geographic regions. Students have the ability to employ e-commerce and digital marketing platforms in order to expand their reach to a broader market. Therefore, tiny enterprises possess the potential to experience accelerated expansion and attract clientele beyond their immediate vicinity.

5. Improved Operational Efficiency

Technology plays a crucial role in the automation of diverse operational activities, including but not limited to inventory management, stock control, and administrative tasks. This technology aids students in mitigating human errors, enhancing accuracy, and optimising time efficiency. These efficiencies contribute to cost avoidance and the enhancement of firm profitability.

6. Access to Information and Market Research

The utilisation of technology enables students to readily access up-to-date information pertaining to market trends, consumer behaviour, and company competition. Armed with this

knowledge, individuals are empowered to make well-informed judgements based on facts when formulating marketing and product development plans.

7. Skill Development

The incorporation of technology into educational settings facilitates the acquisition of crucial technological competencies among students, including proficiency in business software, data analysis, digital marketing, and online platform management. This enhances their preparedness to confront the technological obstacles prevalent in the corporate realm.

8. Flexibility and Mobility

The utilisation of technology enables students to effectively oversee their business operations from various geographical areas. Individuals have the ability to engage in distant work, cooperate with virtual teams, and effectively oversee business processes through the use of internet resources. Flexibility is a crucial factor in effectively navigating the complexities of contemporary business dynamics.

The implementation of educational technology utilisation techniques by students has been found to confer a significant competitive advantage in the market. Individuals possess a greater depth of knowledge, a more pertinent skill set, and a heightened capacity to adapt to evolving technological advancements and business realities. This provides them with an enhanced opportunity to expand, flourish, and contend in a more competitive industry.

CONCLUSION

In the contemporary business landscape, characterised by heightened complexity and intense competition, the incorporation of instructional technology has become an indispensable approach for students aspiring to effectively cultivate and oversee small enterprises. Based on the aforementioned analysis, it can be inferred that the incorporation of educational technology yields a notable beneficial effect on the expansion of small businesses, as well as enhancing students' preparedness to confront competitiveness in the international marketplace. Technology-based education provides students with the opportunity to enhance their understanding of business concepts, cultivate essential technological proficiencies, and formulate more sophisticated strategies. The incorporation of technology facilitates the enhancement of operational efficiency through the automation of repetitive processes, improved accuracy in inventory management, and enhanced financial management capabilities. The incorporation of technology also presents prospects for innovation in products, services, and business operations, hence enhancing the competitive advantage of small firms in the market.

RECOMMENDATIONS

Several suggestions can be inferred from the aforementioned information: 1) **The Incorporation of Technology in Education:** It is imperative for students to actively engage with technology as a means of enhancing their learning experience. Individuals may consider enrolling in online courses, participating in webinars, and effectively utilising pertinent internet resources in order to enhance their understanding of business concepts and acquire proficiency in technology-related competencies. 2) **Incorporation of Digital Business Practises:** Students are expected to conceive and execute digital marketing strategies, use e-commerce platforms, and leverage analytics tools to enhance their comprehension of markets and customers. 3) **The utilisation of technology to engage in collaborative efforts with peers, business mentors, and industry experts is of paramount importance.** These networks have the potential to offer significant insights and present novel opportunities. 4) **Emphasise Innovation and Distinctiveness:** It is imperative for students to foster a mindset that promotes originality and ingenuity in their pursuits. It is imperative for individuals to exhibit the courage to explore unconventional approaches and seek innovative solutions to meet the demands of the market. 5) **The imperative of ongoing learning and adaptability is paramount in the dynamic landscape of the business realm, particularly with respect to technological advancements.** It is imperative for students to possess a receptive mindset towards perpetual learning and remain prepared to modify their approaches in response to the ever-evolving landscape of technology and the market. 6) **Comprehend the Benefits and Constraints of Technology:** It is imperative for students to possess a pragmatic comprehension of the capabilities and limitations of technology. Organisations ought to possess the capability to judiciously incorporate technology in alignment with their strategic business objectives. 7) **Placing Emphasis on Customer Experience:** Within the context of small firms, the prioritisation of customer experience becomes paramount importance. The utilisation of technology can contribute to enhancing customer experiences by offering greater personalization, hence fostering customer loyalty. Overall, the incorporation of educational technology is a worthwhile investment for students aspiring to effectively run prosperous and competitive small enterprises. Given their extensive understanding of business, proficiency in essential technologies, and a notable inclination towards innovation, individuals possess the capacity to establish small enterprises that are both robust and sustainable in the face of the constantly changing dynamics of the business landscape.

ACKNOWLEDGMENTS

The author would like to thank readers for taking the time to read and consider the information presented in this material. Hopefully this information will provide valuable benefits and insights for the development of small businesses and technology-based education in the future.

REFERENCES

- Ahmed, T., Johnson, J., Latif, Z., Kennedy, N., Javier, D., Stinson, K., & Vishwanatha, J. K. (2021). MyNRMN: A national mentoring and networking platform to enhance connectivity and diversity in the biomedical sciences. *FASEB BioAdvances*, 3(7), 497–509. <https://doi.org/10.1096/fba.2020-00102>
- Ajah, I. A., & Nweke, H. F. (2019). Big Data and Business Analytics: Trends, Platforms, Success Factors and Applications. *Big Data and Cognitive Computing*, 3(2), 32. <https://doi.org/10.3390/bdcc3020032>
- Al Hilali, K. S., Al Mughairi, B. M., Kian, M. W., & Karim, A. M. (2020). Coaching and Mentoring. Concepts and Practices in Development of Competencies: A Theoretical Perspective. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 10(1), 41–54. <https://doi.org/10.6007/IJARAFMS/v10-i1/6991>
- Almaududi Ausat, A. M., Suherlan, S., & Peirisal, T. (2021). Analisis Faktor Yang Mempengaruhi Adopsi Mobile Commerce. *CogITo Smart Journal*, 7(2), 265–277. <https://doi.org/10.31154/cogito.v7i2.321.265-277>
- Atrup, A., Diawati, P., Syamsuri, S., Pramono, S. A., & Ausat, A. M. A. (2023). The Effect of Entrepreneurship Education and Creativity on Students' Entrepreneurial Intention : The Perspective of Effectuation and Cognitive Flexibility Theory. *Jurnal Kependidikan*, 9(2). <https://doi.org/https://doi.org/10.33394/jk.v9i2.7822>
- Ausat, A. M. A. (2022). Positive Impact of The Covid-19 Pandemic on The World of Education. *Jurnal Pendidikan*, 23(2), 107–117. <https://doi.org/10.33830/JP.V23I2.3048.2022>
- Ausat, A. M. A., Siti Astuti, E., & Wilopo. (2022). Analisis Faktor Yang Berpengaruh Pada Adopsi E-commerce Dan Dampaknya Bagi Kinerja UKM Di Kabupaten Subang. *Jurnal Teknologi Informasi Dan Ilmu Komputer (JTIK)*, 9(2), 333–346. <https://doi.org/10.25126/jtiik.202295422>
- Ausat, A. M. A., Velmurugan, R., Mazil, M. M., Mazher, M. A., & Okombo, M. O. (2023). Utilisation of Natural Resources as a Source of Inspiration and Innovation in SME

- Development. *Apollo: Journal of Tourism and Business*, 1(3), 122–132. <https://doi.org/10.58905/apollo.v1i3.103>
- Azlim, M., Amran, M., & Rusli, M. R. (2015). Utilization of Educational Technology to Enhance Teaching Practices: Case Study of Community College in Malaysia. *Procedia - Social and Behavioral Sciences*, 195, 1793–1797. <https://doi.org/10.1016/j.sbspro.2015.06.385>
- Baker, H., Kaddumi, T. A., Nassar, M. D., & Muqattash, R. S. (2023). Impact of Financial Technology on Improvement of Banks' Financial Performance. *Journal of Risk and Financial Management*, 16(4), 230. <https://doi.org/10.3390/jrfm16040230>
- Basir, A., Puspitasari, E. D., Aristarini, C. C., Sulastri, P. D., & Ausat, A. M. A. (2023). Ethical Use of ChatGPT in the Context of Leadership and Strategic Decisions. *Jurnal Minfo Polgan*, 12(1), 1239–1246. <https://doi.org/https://doi.org/10.33395/jmp.v12i1.12693>
- Berawi, M. A. (2018). Improving Business Process through Advance Technology Development. *International Journal of Technology*, 9(4), 641. <https://doi.org/10.14716/ijtech.v9i4.2221>
- Bradshaw, C., Atkinson, S., & Doody, O. (2017). Employing a Qualitative Description Approach in Health Care Research. *Global Qualitative Nursing Research*, 4, 1–8. <https://doi.org/10.1177/2333393617742282>
- Coman, C., Țiru, L. G., Meseșan-Schmitz, L., Stanciu, C., & Bularca, M. C. (2020). Online Teaching and Learning in Higher Education during the Coronavirus Pandemic: Students' Perspective. *Sustainability*, 12(24), 10367. <https://doi.org/10.3390/su122410367>
- Diawati, P., Gadzali, S. S., Abd Aziz, M. K. N., Ausat, A. M. A., & Suherlan, S. (2023). The Role of Information Technology in Improving the Efficiency and Productivity of Human Resources in the Workplace. *Jurnal Teknologi Dan Sistem Informasi Bisnis*, 5(3), 296–302. <https://doi.org/https://doi.org/10.47233/jteksis.v5i3.872>
- Diawati, P., Gadzali, S. S., Mahardhani, A. J., Irawan, B., & Ausat, A. M. A. (2023). Analysing the Dynamics of Human Innovation in Administration. *Jurnal Ekonomi*, 12(02), 537–540. <https://ejournal.seaninstitute.or.id/index.php/Ekonomi/article/view/1652>
- Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative Content Analysis. *SAGE Open*, 4(1), 1–10. <https://doi.org/10.1177/2158244014522633>
- Fauzi, F., Tuhuteru, L., Sampe, F., Ausat, A. M. A., & Hatta, H. R. (2023). Analysing the Role of ChatGPT in Improving Student Productivity in Higher Education. *Journal on Education*, 5(4), 14886–14891. <https://doi.org/10.31004/joe.v5i4.2563>

- Gadzali, S. S., Gazalin, J., Sutrisno, S., Prasetya, Y. B., & Ausat, A. M. A. (2023). Human Resource Management Strategy in Organisational Digital Transformation. *Jurnal Minfo Polgan*, *12*(2), 760–770. <https://doi.org/https://doi.org/10.33395/jmp.v12i2.12508>
- Gadzali, S. S., Santosa, S., Choerudin, A., Ayesha, I., & Ausat, A. M. A. (2023). Resource Essence Analysis In Management. *Jurnal Ekonomi*, *12*(02), 532–536. <https://ejournal.seaninstitute.or.id/index.php/Ekonomi/article/view/1651>
- Gopinathan, S., Kaur, A. H., Veeraya, S., & Raman, M. (2022). The Role of Digital Collaboration in Student Engagement towards Enhancing Student Participation during COVID-19. *Sustainability*, *14*(11), 6844. <https://doi.org/10.3390/su14116844>
- Harahap, M. A. K., Ausat, A. M. A., Rachman, A., Riady, Y., & Azzaakiyyah, H. K. (2023). Overview of ChatGPT Technology and its Potential in Improving Tourism Information Services. *Jurnal Mininfo Polgan*, *12*(2), 424–431. <https://doi.org/10.33395/jmp.v12i2.12416>
- Harahap, M. A. K., Ausat, A. M. A., & Suherlan, S. (2023). Analysing the Role of Religious Education in Improving the Work Ethic of MSME Owners. *Journal on Education*, *5*(4), 15050–15057. <https://doi.org/10.31004/joe.v5i4.2591>
- Harahap, M. A. K., Ausat, A. M. A., Sutrisno, S., Suherlan, S., & Azzaakiyyah, H. K. (2023). Analyse the Role of Family in Entrepreneurship Education: Effective Support and Assistance. *Journal on Education*, *5*(4), 14563–14570. <https://doi.org/10.31004/joe.v5i4.2510>
- Harahap, M. A. K., Suherlan, S., Rijal, S., & Ausat, A. M. A. (2023). Defining the Business Philosophy Foundation for Sustainable Business Education. *Journal on Education*, *5*(4), 15776–15783. <https://doi.org/10.31004/joe.v5i4.2690>
- Harahap, M. A. K., Sutrisno, S., Fauzi, F., Jusman, I. A., & Ausat, A. M. A. (2023). The Impact of Digital Technology on Employee Job Stress: A Business Psychology Review. *Jurnal Pendidikan Tambusai*, *7*(1), 3635–3638. <https://jptam.org/index.php/jptam/article/view/5775>
- Harahap, M. A. K., Sutrisno, S., Raharjo, I. B., Novianti, R., & Ausat, A. M. A. (2023). The Role of MSMEs in Improving the Economy in Ramadan. *Community Development Journal: Jurnal Pengabdian Masyarakat*, *4*(2), 1907–1911. <https://doi.org/10.31004/cdj.v4i2.13794>
- Harini, H., Wahyuningtyas, D. P., Sutrisno, S., Wanof, M. I., & Ausat, A. M. A. (2023). Marketing Strategy for Early Childhood Education (ECE) Schools in the Digital Age.

Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini, 7(3), 2742–2758.
<https://doi.org/10.31004/obsesi.v7i3.4454>

Hermansyah, A. M. S. (2023). The Effect of Dividend Policy on Corporate Financial Performance. *Journal of Contemporary Administration and Management (ADMAN)*, 1(1), 5–8. <https://doi.org/10.61100/adman.v1i1.2>

Heyworth-Thomas, E. M. (2023). Creating experiential learning opportunities in enterprise education: an example of a facilitator-led business simulation game in a taught setting. *Journal of Work-Applied Management*, 7, 1. <https://doi.org/10.1108/JWAM-02-2023-0018>

Ismaya, B., Sutrisno, S., Darmawan, D., Jahroni, J., & Kholis, N. (2023). Strategy for Leadership: How Principals of Successful Schools Improve Education Quality. *AL-TANZIM*, 7(1), 247–259.

Jung, S.-U., & Shegai, V. (2023). The Impact of Digital Marketing Innovation on Firm Performance: Mediation by Marketing Capability and Moderation by Firm Size. *Sustainability*, 15(7), 5711. <https://doi.org/10.3390/su15075711>

Karneli, O. (2023). The Role of Adhocratic Leadership in Facing the Changing Business Environment. *Journal of Contemporary Administration and Management (ADMAN)*, 1(2), 77–83. <https://doi.org/10.61100/adman.v1i2.26>

Liu, Z.-Y., Lomovtseva, N., & Korobeynikova, E. (2020). Online Learning Platforms: Reconstructing Modern Higher Education. *International Journal of Emerging Technologies in Learning (IJET)*, 15(13), 4. <https://doi.org/10.3991/ijet.v15i13.14645>

Mahardhani, A. J. (2023). The Role of Public Policy in Fostering Technological Innovation and Sustainability. *Journal of Contemporary Administration and Management (ADMAN)*, 1(2), 47–53. <https://doi.org/10.61100/adman.v1i2.22>

Maitri, W. S., Suherlan, S., Prakosos, R. D. Y., Subagja, A. D., & Ausat, A. M. A. (2023). Recent Trends in Social Media Marketing Strategy. *Jurnal Minfo Polgan*, 12(2), 842–850. <https://doi.org/https://doi.org/10.33395/jmp.v12i2.12517>

Ohara, M. R. (2023). The Role of Social Media in Educational Communication Management. *Journal of Contemporary Administration and Management (ADMAN)*, 1(2), 70–76. <https://doi.org/10.61100/adman.v1i2.25>

Prastyaningtyas, E. W., Ausat, A. M. A., Muhamad, L. F., Wanof, M. I., & Suherlan, S. (2023). The Role of Information Technology in Improving Human Resources Career Development. *Jurnal Teknologi Dan Sistem Informasi Bisnis*, 5(3), 266–275. <https://doi.org/https://doi.org/10.47233/jteksis.v5i3.870>

- Prastyaningtyas, E. W., Sutrisno, S., Soeprajitno, E. D., Ausat, A. M. A., & Suherlan, S. (2023). Analysing the Role of Mentors in Entrepreneurship Education: Effective Support and Assistance. *Journal on Education*, 5(4), 14571–14577. <https://doi.org/10.31004/joe.v5i4.2511>
- Purnomo, Y. J. (2023). Digital Marketing Strategy to Increase Sales Conversion on E-commerce Platforms. *Journal of Contemporary Administration and Management (ADMAN)*, 1(2), 54–62. <https://doi.org/10.61100/adman.v1i2.23>
- Rahman, M. S. (2016). The Advantages and Disadvantages of Using Qualitative and Quantitative Approaches and Methods in Language “Testing and Assessment” Research: A Literature Review. *Journal of Education and Learning*, 6(1), 102–112. <https://doi.org/10.5539/jel.v6n1p102>
- Ramaila, S., & Molwele, A. J. (2022). The Role of Technology Integration in the Development of 21st Century Skills and Competencies in Life Sciences Teaching and Learning. *International Journal of Higher Education*, 11(5), 9. <https://doi.org/10.5430/ijhe.v11n5p9>
- Rijal, S. (2023). The Importance of Community Involvement in Public Management Planning and Decision-Making Processes. *Journal of Contemporary Administration and Management (ADMAN)*, 1(2), 84–92. <https://doi.org/10.61100/adman.v1i2.27>
- Rijal, S., Ausat, A. M. A., Kurniawati, R., & Suherlan, S. (2023). Opportunities and Challenges for MSMEs in Indonesia in the Face of Ramadan. *Community Development Journal: Jurnal Pengabdian Masyarakat*, 4(2), 2035–2039. <https://doi.org/10.31004/cdj.v4i2.13936>
- Rotar, O. (2022). Online student support: a framework for embedding support interventions into the online learning cycle. *Research and Practice in Technology Enhanced Learning*, 17(1), 1–23. <https://doi.org/10.1186/s41039-021-00178-4>
- Salamah, S. N. (2023). Financial Management Strategies to Improve Business Performance. *Journal of Contemporary Administration and Management (ADMAN)*, 1(1), 9–12. <https://doi.org/10.61100/adman.v1i1.3>
- Sari, A. R. (2023). The Impact of Good Governance on the Quality of Public Management Decision Making. *Journal of Contemporary Administration and Management (ADMAN)*, 1(2), 39–46. <https://doi.org/10.61100/adman.v1i2.21>
- Sarker, M. N. I., Wu, M., Cao, Q., Alam, G. M., & Li, D. (2019). Leveraging Digital Technology for Better Learning and Education: A Systematic Literature Review. *International Journal of Information and Education Technology*, 9(7), 453–461. <https://doi.org/10.18178/ijiet.2019.9.7.1246>

- Satriadi, S., Almaududi Ausat, A. M., Heryadi, D. Y., Widjaja, W., & Sari, A. R. (2022). Determinants of Entrepreneurial Intention: A Study on Indonesian Students. *BISNIS & BIROKRASI: Jurnal Ilmu Administrasi Dan Organisasi*, 29(3), 151–165. <https://doi.org/10.20476/jbb.v29i3.1323>
- Stehle, S. M., & Peters-Burton, E. E. (2019). Developing student 21st Century skills in selected exemplary inclusive STEM high schools. *International Journal of STEM Education*, 6(1), 39. <https://doi.org/10.1186/s40594-019-0192-1>
- Sudirjo, F. (2023). Marketing Strategy in Improving Product Competitiveness in the Global Market. *Journal of Contemporary Administration and Management (ADMAN)*, 1(2), 63–69. <https://doi.org/10.61100/adman.v1i2.24>
- Sudirjo, F., Ausat, A. M. A., Rijal, S., Riady, Y., & Suherlan, S. (2023). ChatGPT: Improving Communication Efficiency and Business Management of MSMEs in the Digital Age. *Innovative: Journal Of Social Science Research*, 3(2), 643–652. <https://doi.org/https://doi.org/10.31004/innovative.v3i2.347>
- Sudirjo, F., Diantoro, K., Al-Gasawneh, J. A., Azzaakiyyah, H. K., & Ausat, A. M. A. (2023). Application of ChatGPT in Improving Customer Sentiment Analysis for Businesses. *Jurnal Teknologi Dan Sistem Informasi Bisnis*, 5(3), 283–288. <https://doi.org/https://doi.org/10.47233/jteksis.v5i3.871>
- Sukenti, S. (2023). Financial Management Concepts: A Review. *Journal of Contemporary Administration and Management (ADMAN)*, 1(1), 13–16. <https://doi.org/10.61100/adman.v1i1.4>
- Sutrisno, Ausat, A. M. A., Permana, B., & Harahap, M. A. K. (2023). Do Information Technology and Human Resources Create Business Performance: A Review. *International Journal of Professional Business Review*, 8(8), e02206. <https://doi.org/10.26668/businessreview/2023.v8i8.2206>
- Sutrisno, S., Ausat, A. M. A., Permana, R. M., & Santosa, S. (2023). Effective Marketing Strategies for MSMEs during Ramadan in Indonesia. *Community Development Journal: Jurnal Pengabdian Masyarakat*, 4(2), 1901–1906. <https://doi.org/10.31004/cdj.v4i2.13792>
- Sutrisno, S., Kuraesin, A. D., Siminto, S., Irawansyah, I., & Ausat, A. M. A. (2023). The Role of Information Technology in Driving Innovation and Entrepreneurial Business Growth. *Jurnal Minfo Polgan*, 12(2), 586–597. <https://doi.org/https://doi.org/10.33395/jmp.v12i2.12463>

- Tarigan, I. M., Harahap, M. A. K., Sari, D. M., Sakinah, R. D., & Ausat, A. M. A. (2023). Understanding Social Media: Benefits of Social Media for Individuals. *Jurnal Pendidikan Tambusai*, 7(1), 2317–2322. <https://jptam.org/index.php/jptam/article/view/5559>
- Tariq, U., Ahmed, I., Bashir, A. K., & Shaukat, K. (2023). A Critical Cybersecurity Analysis and Future Research Directions for the Internet of Things: A Comprehensive Review. *Sensors*, 23(8), 4117. <https://doi.org/10.3390/s23084117>
- Tien, L.-C., Chiou, C.-C., & Lee, Y.-S. (2018). Emotional Design in Multimedia Learning: Effects of Multidimensional Concept Maps and Animation on Affect and Learning. *EURASIA Journal of Mathematics, Science and Technology Education*, 14(12), 1–17. <https://doi.org/10.29333/ejmste/94229>
- Touriano, D., Sutrisno, S., Kuraesin, A. D., Santosa, S., & Ausat, A. M. A. (2023). The Role of Information Technology in Improving the Efficiency and Effectiveness of Talent Management Processes. *Jurnal Minfo Polgan*, 12(2), 539–548. <https://doi.org/https://doi.org/10.33395/jmp.v12i2.12454>
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 28(2), 118–144. <https://doi.org/10.1016/j.jsis.2019.01.003>
- Wahyoedi, S., Suherlan, S., Rijal, S., Azzaakiyyah, H. K., & Ausat, A. M. A. (2023). Implementation of Information Technology in Human Resource Management. *Al-Buhuts*, 19(1), 300–318. <https://doi.org/https://doi.org/10.30603/ab.v19i1.3407>
- Yusuf, M., Sutrisno, Putri, P. A. N., Asir, M., & Cakranegara, P. A. (2022). Prospek Penggunaan E-Commerce Terhadap Profitabilitas Dan Kemudahan Pelayanan Konsumen: Literature Review. *Jurnal Darma Agung*, 30(1), 786–801.
- Zen, A., Siminto, S., Harahap, M. A. K., Prasetya, Y. B., & Ausat, A. M. A. (2023). Effective Leadership: A Literature Review of Concepts, Characteristics, and Best Practices. *Innovative: Journal Of Social Science Research*, 3(2), 2209–2219. <https://doi.org/https://doi.org/10.31004/innovative.v3i2.430>
- Zhang, W. (2022). The Role of Technology-Based Education and Teacher Professional Development in English as a Foreign Language Classes. *Frontiers in Psychology*, 13, 1–7. <https://doi.org/10.3389/fpsyg.2022.910315>