

**BRIDGING THEORY AND PRACTICE: APPLYING VRIO AND PEST TO FOSTER  
DIGITAL TRANSFORMATION IN KADIN BANDUNG CITY MSMEs**

Maisa Azizah Asmara<sup>1\*</sup>, Rivaldi Arissaputra<sup>2</sup>, Sherly Nur Sabila<sup>3</sup>, Aril Lyan  
Arrizki<sup>4</sup>

<sup>1-4</sup>Universitas 'Aisyiyah Bandung, Faculty of Economics, Business and Social  
Sciences

Email Correspondence: maisa.azizah@unisa-bandung.ac.id

Submitted: 07 September, 2024

Accepted: 16 October, 2024

Published: 01 November, 2024

Doi: <https://doi.org/10.33024/jkpm.v7i11.17480>

**ABSTRACT**

The data indicates that approximately 70% of MSMEs in Indonesia operate within the food and beverage sector, with 99.5% falling under the MSME classification. Despite being perceived as having numerous advantages, MSMEs face several limitations that hinder their ability to enhance competitiveness and growth. The PKM program is designed to equip participants with relevant knowledge and skills, aiming to improve product quality, expand market access, and implement effective digital strategies. The approach employed involved direct counseling and mentoring sessions for 20 women-led MSMEs supported by KADIN Bandung City. The most notable improvement was observed in participants' understanding of the benefits of digital transformation, along with a strong motivation to apply it within their business practices. Overall, the counseling and mentoring activities demonstrated their effectiveness in enhancing participants' comprehension and motivation to implement the three concepts presented in a practical business context.

**Keywords:** PEST Analysis, VRIO Analysis, Digital Transformation

**1. INTRODUCTION**

Micro, Small, and Medium Enterprises (MSMEs) are pivotal to the Indonesian economy, as they contribute 60.5% to the Gross Domestic Product (GDP) and employ 96.9% of the workforce nationwide (Pardede, 2023). Indonesia also leads ASEAN in the number of MSMEs, which reached 65.5 million in 2021 and is expected to continue growing (Pranasari & Nawawi, 2023). These enterprises span a broad range of sectors, including food, clothing, and crafts, with the culinary sector being particularly prominent due to its relatively low capital requirements. Data indicates that approximately 70% of Indonesian MSMEs are involved in the food and beverage sector, of which 99.5% fall within the MSME classification (Ahmad Kholik & Dewi Rahmi, 2023). The food and beverage industry is expanding rapidly, contributing 37.77% to the GDP of the non-oil and gas processing sector in the first quarter of 2022 (Ekon.go.id, 2022). Despite the perceived advantages of MSMEs, these enterprises encounter several limitations that hinder their efforts to enhance competitiveness and growth. Consequently, amid the Industrial Revolution 4.0, it is crucial for MSME owners and

managers in Indonesia to develop the ability to compete and adapt swiftly (Najib et al., 2022).

In an increasingly complex economic environment, KADIN (Kamar Dagang dan Industri) Kota Bandung recognizes the crucial role of supporting UMKM as a cornerstone of the local economy (Sadikin et al., 2023). To provide targeted assistance, KADIN Bandung City addresses 2 (two) primary obstacles: (1) a lack of knowledge in business strategy development, as evidenced by many MSMEs lacking detailed plans such as business objectives, targets, vision, and mission. Many MSMEs focus solely on selling goods without engaging in thorough planning, particularly regarding creative product modifications for both new and existing products. This lack of planning hampers their ability to adapt to market changes. Furthermore, most MSMEs tend to produce goods based on current popular trends, which impedes their capacity to effectively manage and grow their businesses. As a result, only a few MSMEs are able to sustain themselves in a highly competitive market (Isniar Budiarti, 2024).

**Table 1. Sales Decline**

Decline 75%			
Bussiness Scale	Micro(%)	Small(%)	Medium (%)
	49,01	43,03	45,83
Scale of business duration	0-5 years (%)	6-10 years (%)	>10 years (%)
	23,27	10,9	8,84
Sales Method	Offline (%)	Online (%)	Offline and Online (%)
	47,44	40,17	39,41

Data Sources: (Fadilah et al., 2022)

(2) The lack of comprehensive knowledge regarding the integration of technology into business operations results in many ineffective and inefficient practices that impede the growth of MSMEs (Harto et al., 2024). According to information released by Kominfo in 2020, internet usage increased by 30-40% following the pandemic, indicating that businesses should leverage internet services to remain competitive. However, data from BPS in 2020 revealed that only 14.6% of MSMEs in Bandung City utilized online systems. Although this figure has grown by 2.14% annually, the pace of growth remains relatively slow (Puspitaningsih et al., 2022).

Given these conditions, it is evident that MSMEs require comprehensive plans to revitalize and strengthen their operations. Thus, stakeholders must develop strategies that align with their specific business conditions and are based on a thorough understanding of their capabilities (Ridha et al., 2023). Consequently, MSMEs need to undergo digital transformation, which encompasses changes in processes, strategies, and organizational structures by harnessing technology and business models to adapt to advancements in information technology (Sahrul & Nuringsih, 2023).

The identification of surplus resources, referred to as the Resource-Based View (RBV), serves as a fundamental strategy. RBV is instrumental in guiding MSMEs toward the development of optimal strategies tailored to their specific business contexts (Aisyah et al., 2022). RBV is a framework in strategic management, consisting of two main components. First, strategies

aimed at enhancing productivity and operational efficiency. Second, an internal strategic formulation that is necessary to achieve optimal performance. These two strategies are designed to help organizations secure a competitive advantage in an ever-evolving business environment (González-Díaz et al., 2021). One of the tools that can be utilized within this framework is the VRIO (Valuable, Rare, Inimitable, Organized) Framework, which serves as a tool for conducting internal analysis of a company (Sonia, 2022). In addition to VRIO, the PEST (Political, Economic, Social, Technological) analysis is also essential for understanding external factors that influence the business. This analysis aids in identifying potential opportunities and risks by forecasting future trends, assessing regulatory implications, adapting to economic shifts, staying informed on social developments, and leveraging technological innovations (Lewoema et al., 2023).

The urgency of the PKM program relates to the phenomenon where around 70% of MSMEs decide to expand their business online to avoid bankruptcy. However, between 85% and 95% of these MSMEs fail to adopt digital business models, ultimately leading to bankruptcy (Farhani et al., 2021). Therefore, the aim of this PKM is to identify the internal resources and capabilities of MSMEs that can provide a competitive advantage. This also includes mapping external factors that influence MSME operations and determining how these factors can be leveraged or mitigated. The research further identifies the key barriers and opportunities MSMEs face in their digital transformation process by developing a digital transformation strategy focused on enhancing productivity, operational efficiency, and technological adaptation. In addition, the program offers practical recommendations for MSMEs to optimize their resources and capabilities, thereby improving competitiveness and business sustainability through digital transformation.

'Aisyiyah University Bandung acknowledges its moral, social, and religious responsibility to provide substantial support in addressing the challenges faced by MSMEs. To ensure the effectiveness of the training, the University established a collaboration with KADIN Bandung, an organization dedicated to supporting and fostering MSMEs in the city. The participants of the training were MSMEs operating in the food and beverage sector, allowing the training materials to be tailored to their specific needs. The selection of this sector was based on its dynamic and competitive nature within the MSME industry. The training aimed to equip participants with relevant knowledge and skills, enhance product quality, expand market reach, and implement effective digital strategies.

## 2. PROBLEM AND QUESTIONS FORMULATION

The implementation of the PKM program begins with a pre-test for participants, aimed at evaluating their initial conditions and assessing their knowledge and understanding prior to the program's execution. This pre-test not only serves to assess the participants' baseline but also facilitates the measurement of knowledge improvement after participating in the PKM program. The key findings are as follows:

- 1) 100% of participants had no prior knowledge of VRIO, PEST, or digital transformation, highlighting the need for the material to be delivered in a simplified and accessible manner.
- 2) 100% of participants had not applied VRIO or PEST analysis in their strategy formulation processes. This was primarily due to traditional corporate cultures and an inability to adapt to modern methods and strategies, which hampered efforts to achieve digital transformation.

Therefore, the objectives of this PKM program are:

- 1) To enhance participants' knowledge by providing a comprehensive understanding of VRIO analysis, PEST, and the concept of digital transformation through a straightforward and easily comprehensible delivery approach.
- 2) To promote the application of analytical tools in strategic planning: assisting participants in adopting VRIO and PEST analyses in the strategy formulation process, with a focus on introducing modern and relevant methods to facilitate digital transformation and addressing the challenges posed by traditional corporate cultures.

The problem formulation based on the above phenomenon is as follows:

- 1) Has participants' comprehension of the material presented shown any improvement?
- 2) To what extent has the participants' knowledge increased after participating in the PKM program?

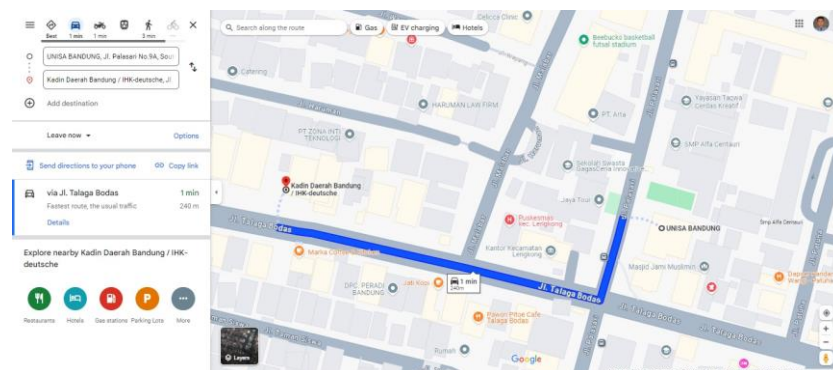


Figure 1. Location of Activity  
Sources: Google Maps

### 3. OVERVIEW

Digital transformation is a product of the disruption era, commonly referred to as Industry 4.0, which has led to shifts in business models and the restructuring of traditional business ecosystems into more innovative, complex, and dynamic ones (Winasis, 2020). This transformation offers substantial benefits to MSMEs, such as reducing operational costs, thereby enhancing financial efficiency. Moreover, digitalization provides more effective and efficient access to consumers, entrepreneurs, suppliers, and various other networks, facilitating faster communication, expanding market reach, and improving service quality and business interactions (Nengyanti et al., 2023). According to (Maryana, 2023), digital transformation is an evolutionary process that leverages digital capabilities and technologies to

innovate or revamp business processes, operations, and customer experiences, with the goal of generating new and innovative value.

For digital transformation to be implemented effectively, it is crucial to assess the company's resources and capabilities. This can be achieved by employing the VRIO framework, which allows businesses to analyze their internal factors (Wulandari & Agustini, 2024). VRIO, an acronym for four key questions, evaluates the value, rarity, imitability, and organization of resources or capabilities to determine their potential for competitive advantage (Barney & Hesterly, 2015):

- 1) Valuable Question: Do the resources enable the company to exploit opportunities or mitigate external threats effectively?
- 2) Rare Question: Is the resource possessed by only a few competing firms, thus providing a competitive edge?
- 3) Inimitable Question: Would it be costly or difficult for other companies to acquire or replicate the resource?
- 4) Organization Question: Are the company's organizational structures, policies, and processes aligned to optimize the utilization of this resource?

In addition to examining internal factors, companies must also understand the external elements that influence their operations, which can be achieved through a PEST analysis (Leyva Vázquez et al., 2018). The PEST framework identifies various external factors—political, economic, social, and technological—that significantly impact a business, most of which lie beyond the company's direct control. These factors can influence both strategy and performance. Given their external nature, companies can only adapt or respond to these factors, rather than exert control over them. Therefore, PEST analysis is crucial in preparing businesses for challenges that may emerge from dynamic and unpredictable changes in the external environment (Benzaghta et al., 2021).

Overall, the combined use of VRIO and PEST analyses offers complementary insights. While VRIO ensures the company leverages strong internal resources and capabilities, PEST equips the company to navigate external challenges effectively. This combination is essential in supporting a successful and sustainable digital transformation, allowing companies to stay competitive and relevant in an era of rapid disruption.

#### 4. METHOD

The method employed focuses on counseling activities that emphasize the importance of a thorough understanding of the VRIO concept, PEST analysis, and digital transformation. The objective of the counseling is to equip participants with comprehensive insights on how these three concepts can be effectively applied in the context of modern business. Furthermore, the program goes beyond theoretical education by providing intensive mentoring to assist participants in designing effective strategies to address business challenges in the digital era. The mentoring involves step-by-step guidance in applying VRIO and PEST analyses to evaluate an organization's competitive position, as well as imparting practical knowledge on leveraging digital technology to enhance efficiency and foster innovation in business operations. Through this counseling and mentoring, participants are expected to be better equipped in formulating adaptive and sustainable

strategies amidst the rapid changes in the business environment.

The PKM program was attended by 20 participants, all of whom are women owners of MSMEs under the guidance of KADIN Bandung City. These participants operate in the food and beverage sector. The PKM activities were held at the KADIN Bandung City office and were scheduled to run throughout the day, from 09:00 to 15:30. The stages of the PKM implementation were as follows:

- 1) Program Introduction and Opening Remarks: The program commenced with opening remarks from the organizers and representatives of KADIN Bandung City. During this session, participants were introduced to the objectives, benefits, and details of the activities they would undertake during the program.
- 2) Pre-test Distribution: A pre-test questionnaire was administered to the participants to assess their initial understanding of key concepts such as business strategy, digital transformation, VRIO, and PEST. This pre-test was essential for determining participants' baseline knowledge and for tailoring the content of the extension materials to their needs.
- 3) Theoretical Training Sessions: These sessions focused on key concepts such as VRIO, PEST analysis, and the importance of digital transformation for MSMEs. The sessions were led by experts in their respective fields, utilizing lectures, visual aids, and interactive discussions to facilitate learning.
- 4) Business Strategy Assistance: Participants received practical assistance in developing business strategies suited to their individual business conditions. This hands-on guidance included simulations on the application of VRIO and PEST analysis to the food and beverage sector. Participants were also trained on how to optimize digital technology for business management and growth.
- 5) Post-Test Distribution: A post-test questionnaire was administered to the participants to evaluate changes in their understanding. The results of the post-test were used to measure the impact of the counseling and mentoring on participants' knowledge and their preparedness to apply the concepts learned during the program.
- 6) Closing and Evaluation: The program concluded with an official closing session, during which the overall evaluation results of the program were presented. Participants were also given the opportunity to provide feedback on the program's implementation.

## 5. RESULT AND DISCUSSION

### a. Result

Table the table below presents the results obtained from the pre-test that was administered.

**Table 2. Pre-Test Result**

Description	Definition Comprehension	Understanding of Benefits	Ability to Apply	Perceived Necessity
PEST	9 Participants / 45%	0 Participants / 0%	0 Participants / 0%	2 Participants / 10%

VRIO	12 Participants / 60%	3 Participants / 15%	0 Participants / 0%	4 Participants / 20%
Digital Transformation	13 Participants / 65%	2 Participants / 10%	0 Participants / 0%	6 Participants / 30%

Sources: Data Processed

Based on Table 1, the data indicates that 45% of participants possessed a basic understanding of the concepts, reflecting an adequate level of initial knowledge. However, none of the participants demonstrated a thorough comprehension of the benefits associated with the three concepts, as evidenced by the lack of affirmative responses regarding their advantages. Furthermore, no participants were able to apply the concepts in their business practices, highlighting a deficiency in practical competence. Only 20% of participants recognized the relevance and necessity of these concepts in their business context, suggesting a limited perception of the urgency and significance of their implementation.



Figure 2. Pre-Test Questionnaire Distribution



Figure 3. Sharing Knowledge by Expert

The presentation of the material lasted for 3 hours, covering an in-depth exploration of the VRIO, PEST, and digital transformation concepts. The material was delivered by Maisa Azizah Asmara, SE, MM, a lecturer in entrepreneurship, and Fitri Novilia, S.Pd., M.Pd., an MSME practitioner with direct experience in the field. Following the presentation, the

session transitioned into a discussion and Q&A aimed at clarifying and reinforcing the participants' understanding of the concepts. This interactive segment provided participants the opportunity to raise questions and explore the practical application of the material in their respective business contexts.

The subsequent event was a hands-on mentoring session focused on developing strategies utilizing the three concepts. This session aimed to provide practical guidance to participants in applying the theories they had learned, as well as assisting in the creation of strategies that are both relevant and effective within their business contexts. The mentoring was designed to enhance participants' skills in practical application and to ensure they can effectively integrate the VRIO, PEST, and digital transformation concepts into their business strategies.



Figure 4. Discussion Session



Figure 5. Mentoring Session

Finally, participants were administered a post-test questionnaire to assess their understanding following the material presentation and mentoring sessions. This questionnaire was designed to evaluate the extent of improvement in participants' knowledge and skills, as well as to measure the effectiveness of the training and mentoring activities. The results of this post-test are anticipated to offer insights into participants' achievements in mastering the material and applying it in practical contexts.



Table 3. Post-Test Result

Description	Definition Comprehension	Understanding of Benefits	Ability to Apply	Perceived Necessity
PEST	16 Participants / 80%	16 Participants / 80%	12 Participants / 60%	16 Participants / 80%
VRIO	17 Participants / 85%	19 Participants / 95%	16 Participants / 80%	16 Participants / 80%
Digital Transformation	19 Participants / 95%	20 Peserta / 100%	18 Participants / 90%	18 Participants / 90%

Sources: Data

Based on the table, it can be concluded that 80% of the participants demonstrated a solid understanding of the basic definition of PEST analysis, reflecting an adequate level of knowledge regarding this concept. Additionally, 80% of the participants grasped the benefits of PEST analysis, indicating a strong comprehension of its usefulness and applicability within a business context. However, only 60% of participants expressed an intention to implement a PEST strategy, suggesting a notable willingness to adopt the concept, although it has not yet been fully realized in practice. Furthermore, 80% of participants acknowledged that PEST is a critical and relevant concept for their needs, signifying their recognition of its value and relevance in the operational and strategic aspects of business.



Figure 6. Post-Test Questionnaire Distribution

The results of the VRIO analysis indicate that 85% of the participants had a strong understanding of the basic definition of the concept, demonstrating a high level of knowledge. Moreover, 95% of the participants comprehended the benefits of VRIO analysis, reflecting a deep appreciation and understanding of its utility within a business context. Approximately 80% of participants expressed intentions to implement VRIO strategies, suggesting a readiness to integrate the concept into their business practices. Additionally, 80% of the participants

recognized VRIO as a relevant and important concept for business needs, highlighting a positive perception of its application in business strategy development.

The analysis of digital transformation revealed that 95% of participants demonstrated an excellent understanding of the basic definition of the concept, indicating a near-universal grasp of the topic. Furthermore, all participants (100%) comprehended the benefits of digital transformation, reflecting a profound understanding of its advantages and applicability within a business context. A significant majority (90%) expressed intentions to implement a digital transformation strategy, indicating a high level of readiness to incorporate this concept into their business practices. Additionally, 90% of participants acknowledged the relevance and necessity of digital transformation in their business context, underscoring a strong awareness of its urgency and critical role in ensuring business success and adaptability.

**Table 4. Participants improvement**

Increase	Definition Comprehension	Understanding of Benefits	Ability to Apply	Perceived Necessity
PEST	7 Participants / 35%	16 Participants / 80%	12 Participants / 60%	14 Participants / 70%
VRIO	5 Participants / 25%	16 Participants / 80%	16 Participants / 80%	12 Participants / 60%
Digital Transformation	6 Participants / 30%	18 Participants / 90%	18 Participants / 90%	12 Participants / 60%

Sources: Data

Overall, the data suggests that the training significantly enhanced participants' understanding and their intention to apply the three key concepts presented. The most notable improvement was observed in participants' comprehension of the benefits of digital transformation and their inclination to implement it in business practices. Although the degree of improvement in the perceived necessity of each concept varied, the training effectively reinforced participants' awareness of the importance of these concepts in a business context. The program not only facilitated theoretical understanding of PEST, VRIO, and digital transformation but also motivated participants to seriously consider applying these strategies in real-world scenarios. Consequently, the training positively impacted participants' preparedness to integrate these concepts, aiming to enhance business performance and competitiveness moving forward.

#### **b. Discussion**

The low results from the pre-test questionnaire can be attributed to several factors, including limited prior education or training that focused primarily on the definitions of concepts without adequately

exploring their benefits and practical applications. Furthermore, participants' lack of practical experience or exposure to situations that necessitate the use of strategies such as PEST, VRIO, and digital transformation may have impacted their competencies. Another contributing factor is the perceived lack of relevance of these strategies to their current business operations, combined with an organizational culture that may not foster innovation or strategic analysis within the business environment.

Following the implementation of the PKM program, participants' understanding of the concepts taught improved significantly. This enhanced comprehension enabled them to better grasp how these strategies could be employed to enhance business value and competitiveness. In addition to the increased theoretical knowledge, participants were given the opportunity to actively engage in the process of developing practical business strategies. This hands-on experience provided deeper insights into the real-world application of these concepts, better equipping participants to address future business challenges and enhance the sustainability of their enterprises.

In line with the findings of research by (Rintalla & Samsudin, 2024) dan (Damayanti & Adiwibowo, 2021) the implementation of VRIO analysis provides MSMEs with an opportunity to optimize their competitive advantage within the industry. This enables MSMEs to respond more effectively to market dynamics and changes, ensuring that they remain competitive and adaptive in addressing the challenges of an ever-evolving digital era. Consequently, MSMEs are not only able to sustain their market position but also have the potential to strengthen their competitiveness in a sustainable manner, fostering greater growth opportunities amid technological advancements and shifting consumer demands.

Similarly, research by (Mukti et al., 2023) dan (Putri et al., 2024) emphasizes that by conducting PEST analysis, companies can identify opportunities and threats within the market and align their business strategies with external environmental conditions. This adaptability allows businesses to respond to changes and make well-informed decisions, thereby sustaining competitiveness and fostering long-term growth.

Digital transformation requires organizations to adapt to the rapid development of technology to maintain competitiveness in the market. This process forces companies to keep up with the latest technological innovations and trends to remain relevant and competitive. The implementation of digital transformation not only improves operational efficiency and company performance, but can also drive revenue growth through business process optimization. In addition, this transformation can bring positive changes to organizational culture, creating a more adaptive, collaborative, and innovation-oriented work environment. Thus, organizations that successfully implement digital transformation will be better prepared to face challenges in the digital era and have a greater chance of long-term success (Oktaviani et al., 2023)(Hawa et al., 2023).

## 6. CONCLUSION

To address the research questions:

- a. Based on questions number 1, it can be concluded that there was a substantial improvement in participants' understanding of the material delivered during the training. Each concept discussed—PEST, VRIO, and Digital Transformation—demonstrated a significant increase in participants' comprehension, particularly in the areas of definitions and benefits. This suggests that the training effectively deepened participants' knowledge, especially in terms of the application and relevance of these concepts within their business context.
- b. Based on questions number 2, the increase in participants' knowledge following the PKM program was highly significant. This is evident from the results, which show a marked improvement in understanding for each concept. These enhancements indicate that participants not only acquired theoretical knowledge but were also motivated to implement these strategies in their business practices.

## 7. REFERENCES

- Ahmad Kholik, & Dewi Rahmi. (2023). Strategi Pengembangan UMKM Makanan dan Minuman di Kelurahan Tamansari Kota Bandung. *Jurnal Riset Ilmu Ekonomi Dan Bisnis*, 133-142. <https://doi.org/10.29313/jrieb.v3i2.2796>
- Aisyah, H., Puspita, S., & Elizamiharti, E. (2022). Resource-Based View: Strategi Umkm Di Sumatera Barat Untuk Mencapai Keunggulan Kompetitif. *JMD : Jurnal Riset Manajemen & Bisnis Dewantara*, 5(2), 109-120. <https://doi.org/10.26533/jmd.v5i2.1029>
- Barney, J. B., & Hesterly, W. S. (2015). *Strategic Management and Competitive Advantage*.
- Benzaghta, M. A., Elwalda, A., Mousa, M., Erkan, I., & Rahman, M. (2021). SWOT analysis applications: An integrative literature review. *Journal of Global Business Insights*, 6(1), 55-73. <https://doi.org/10.5038/2640-6489.6.1.1148>
- Damayanti, F., & Adiwibowo, L. (2021). *Analisis VRIO Model Perusahaan Fintech dalam Menciptakan Keunggulan Kompetitif Berkelanjutan*. V(2), 124-133.
- Ekon.go.id. (2022). *Perkembangan UMKM sebagai Critical Engine Perekonomian Nasional Terus Mendapatkan Dukungan Pemerintah*. <https://www.ekon.go.id/publikasi/detail/4593/perkembangan-umkm-sebagai-critical-engine-perekonomian-nasional-terus-mendapatkan-dukungan-pemerintah>
- Fadilah, I., Rahman, S., & Anwar, M. (2022). Analisis pengaruh Literasi Keuangan, Inklusi Keuangan, dan Financial Technology terhadap kinerja Usaha Mikro Kecil Menengah (UMKM) di Kota Bandung. *Fair Value: Jurnal Ilmiah Akuntansi Dan Keuangan*, 5(3), 1347-1354. <https://doi.org/10.32670/fairvalue.v5i3.2419>
- Farhani, I., Chaniago, H., & Kunci, K. (2021). *Faktor Penentu Transformasi Digital UMKM : Bukti dari Indonesia*. 4-5.
- González-Díaz, R. R., Acevedo-Duque, Á. E., Guanilo-Gómez, S. L., & Cachicatari-Vargas, E. (2021). Business counterintelligence as a protection strategy for SMEs. *Entrepreneurship and Sustainability*

- Issues, 8(3), 340-352. [https://doi.org/10.9770/jesi.2021.8.3\(21\)](https://doi.org/10.9770/jesi.2021.8.3(21))
- Harto, B., Marlina, M., Pramuditha, P., & Sumarni, T. (2024). Pemanfaatan Teknologi Informasi Digital , Digital Marketing , dalam Mendorong Sustainability Competitive Bisnis UMKM Kue SuguWangi di Desa Melatiwangi Kecamatan Cilengkrang Kabupaten Bandung. *Ithabdimas*, 8(1), 221-229.
- Hawa, S. D., Raharja, M. C., & Rianto, S. (2023). Pengaruh Transformasi Digital Terhadap Keberlanjutan Bisnis UMKM Batik Banyumas Melalui Kinerja Pemasaran Sebagai Variabel Mediasi. 4(1).
- Isniar Budiarti. (2024). Pelatihan Leadership “Creative & Innovative Thinking For Leader & Employee” Pada UMKM Binaan KADIN Kota Bandung. 3(8), 1655-1664.
- Lewoema, S., Prayuda, A., & Riski, M. A. (2023). Perancangan Website E-Business dengan Metode Analisis SWOT dan PEST di Kedai S’Ajian Ndeso. *Journal of Computer Science and Technology (JCS-TECH)*, 3(1), 17-24. <https://doi.org/10.54840/jcstech.v3i1.95>
- Leyva Vázquez, M., Hechavarría Hernández, J., Batista Hernández, N., Alarcón Salvatierra, J. A., & Gómez Baryolo, O. (2018). A framework for PEST analysis based on fuzzy decision maps. *Espacios*, 39(16).
- Maryana, S. (2023). Kompetensi Soft Skill Aparatur Sipil Negara Dalam Era Transformasi Digital: Sebuah Studi Pustaka. *Civil Service Journal*, 16(1), 117-129. <https://doi.org/10.61133/pns.v16i1.384>
- Mukti, A., Yuliyanto, P., & Taqwa Prasetyaningrum, P. (2023). Perancangan E-Business pada UMKM DJADIBATIK. *Journal of Computer Science and Technology (JCS-TECH)*, 3(1), 9-16. <https://doi.org/10.54840/jcstech.v3i1.94>
- Najib, M. F., Agustunus Februadi, Tjetjep Djarnika, Wahyu Rafdinal, Carolina Magdalena Lasambouw, & Neneng Nuryati. (2022). Inovasi Desain Kemasan (Packaging) sebagai Faktor Peningkatan Daya Saing Produk UMKM di Desa Ciwarua, Kabupaten Bandung Barat. *Dinamisia : Jurnal Pengabdian Kepada Masyarakat*, 6(1), 56-64. <https://doi.org/10.31849/dinamisia.v6i1.8397>
- Nengyanti, N., Putri, A. U., Nasyaya, A., & ... (2023). Kreativitas, Inovasi dan Transformasi Digital: Pengabdian Masyarakat kepada Pelaku UMKM. *CARADDE: Jurnal ...*, 6, 129-137. <https://journal.ilinstitute.com/index.php/caradde/article/view/2012%0Ahttps://journal.ilinstitute.com/index.php/caradde/article/download/2012/716>
- Oktaviani, E., Wasono, A., Prakoso, I., Manajemen, M. M., Jakarta, U. P., Manajemen, D. M., & Jakarta, U. P. (2023). *TRANSFORMASI DIGITAL DAN STRATEGI*. 16, 16-26.
- Pardede, R. K. B. (2023). *Pertumbuhan UMKM Untuk Menjaga Momentum Pemulihan Ekonomi*. <https://www.kompas.id/baca/ekonomi/2023/03/15/pertumbuhan-umkm-diperlukan-untuk-jaga-momentum-pemulihan-ekonomi>
- Pranasari, S., & Nawawi, Z. M. (2023). Analisis Perkembangan UMKM Di Kecamatan Kota Kisaran Barat Pada Masa Pandemi Covid-19 2020-2021. *El-Mujtama: Jurnal Pengabdian Masyarakat*, 3(1), 148-153.
- Puspitaningsih, R., Liana, K., & Irianti, L. (2022). Faktor yang Mempengaruhi UMKM Dalam Mengadopsi Komputasi Awan Di Kota Bandung. *Jurnal Teknik Industri: Jurnal Hasil Penelitian Dan Karya Ilmiah Dalam Bidang*

- Teknik Industri*, 8(2), 202. <https://doi.org/10.24014/jti.v8i2.20037>
- Putri, R. A., Yanto, C. H., Amalia, I., Sinarudia, L. E., & Ricoida, D. I. (2024). *Perencanaan Strategis Sistem Informasi Untuk Meningkatkan Efisiensi Dan Efektivitas Proses Bisnis*. 5(1), 214-226.
- Ridha, M. R., Permana, A., & Malinda, M. (2023). Analisis SWOT Usaha Mikro Kecil Menengah (UMKM) Deden Telur di Bandung. *Seminar Nasional Teknik Dan Manajemen Industri*, 2(1), 118-124. <https://doi.org/10.28932/sentekmi2023.v2i1.145>
- Rintalla, M., & Samsudin, A. (2024). Resource-Based View Analysis As A Strategy To Enhance Competitive Advantage In CV Mubarakfood Cipta Delicia Analisis Resource-Based View Sebagai Strategi Untuk Meningkatkan Keunggulan Kompetitif Pada CV Mubarakfood Cipta Deliciaid 2 \*Corresponding Author. *Universitas Pembangunan Nasional Veteran Jawa Timur*, 5(1), 2906-2917.
- Sadikin, A., Naim, S., Asmara, M. A., Hierdawati, T., & Boari, Y. (2023). Innovative strategies for MSME business growth with the business model canvas approach. *Enrichment: Journal of Management*, 13(2), 1478-1484.
- Sahrul, E. A., & Nuringsih, K. (2023). Peran E-Commerce, Media Sosial Dan Digital Transformation Untuk Peningkatan Kinerja Bisnis Umkm. *Jurnal Muara Ilmu Ekonomi Dan Bisnis*, 7(2), 286-299. <https://doi.org/10.24912/jmieb.v7i2.23293>
- Sonia, O. A. (2022). Analisis Keunggulan Kompetitif Umkm Dimasa Pandemi Covid 19. *Management and Sustainable Development Journal*, 4(1). <https://doi.org/10.46229/msdj.v4i1.295>
- Winasis, S. (2020). Transformasi Digital di Industri Perbankan Indonesia : Impak pada Stress Kerja Karyawan. *IQTISHADIA Jurnal Ekonomi & Perbankan Syariah*, 7(1), 55-64. <https://doi.org/10.19105/iqtishadia.v7i1.3162>
- Wulandari, C. C., & Agustini, M. Y. D. H. (2024). *VRIO Analysis as a Basic Strategy for Obtaining Construction Tenders in Construction Service Companies*. 5992(1), 26-37.