

on teachers' capacity to adapt to social and technological changes. Although the government has rolled out various policies such as training, certification and curriculum improvement, the quality of Indonesian education still faces serious challenges. This is in line with the view of Asadullah et al. (2025), who point out that developing countries often experience stagnation in education quality despite increased investment. The low Human Development Index (HDI) and unequal access to education indicate that many fundamental issues remain unresolved, including low teacher competence and the lack of systemic support for teacher professional development, especially in vocational high schools (SMK).

The central role of teachers in determining the success of learning requires continuous strengthening of competencies. Competent teachers not only master teaching materials, but are also able to create a conducive learning atmosphere and encourage active student participation. Astutik & Roesminingsih (2021) emphasized that an effective competency-based learning approach must be supported by teachers with strong pedagogical and professional skills. Unfortunately, the average competency achievement of Indonesian teachers based on the Teacher Competency Test (UKG) in 2015 is still low. Meanwhile, Law No. 14/2005 has mandated four main pillars of competence: pedagogic, professional, social and personality. These competencies are important to face the 21st century era that demands collaboration-based learning, communication, creativity, and critical thinking. In this context, the results of Aindra et al. (2022) showed that improving teacher competence has a direct impact on student engagement and achievement.

The need for adaptive teachers is increasingly important in the context of vocational education such as SMK. SMK teachers are required to have a deep understanding of the world of work and be able to bridge the gap between education and industry needs. In the field of cosmetology, for example, mastery of SKKNI and the application of project-based learning are crucial. This is in line with the findings of Nkunya & Mwila (2024), which states that practical skills and industrial capabilities are the main competitive advantages for SMK graduates. Unfortunately, the reality on the ground still shows that many teachers have not met the competency standards due to limited training and low institutional support. On the other hand, a report by Lopes et al. (2023) underlines that the lack of integration

between teacher training and industry needs is a major obstacle in the revitalization of vocational education. This has resulted in SMK graduates, including those from cosmetology programs, not being able to fully compete in an increasingly selective job market.

The gap between vocational education and industry requirements continues to be a critical concern, as evidenced by the 10.38% open unemployment rate among SMK graduates in 2022. This issue is deeply rooted in inadequate learning processes and insufficient teacher competence. According to Bhattarai (2021), without substantive improvements in instructional quality, vocational education reform remains superficial. Eini et al. (2024) further emphasize the urgency for vocational teachers to adopt flexible, practice-oriented methodologies to produce graduates who are genuinely prepared for the workforce. However, limited empirical research has specifically investigated the extent to which cosmetology teachers' professional competencies align with the evolving needs of the Indonesian beauty industry. Guided by this gap, the present study addresses three essential questions: the effectiveness of SMK cosmetology curriculum implementation, the alignment of teacher competencies with industry demands, and the identification of current and future workforce needs in the beauty sector. The study aims to generate insights that support curriculum refinement, promote relevant teacher development, and inform policy interventions. The findings are expected to benefit vocational schools in aligning their training with market realities, empower teachers through targeted upskilling, and foster partnerships between education providers and industry stakeholders to cultivate graduates who are adaptive, creative, and industry-ready.

2. Methods

This study uses a qualitative approach based on Miles et al. (2019) to explore in depth the perspectives of teachers and cosmetology industry owners on the competencies needed in the world of work. The research location focused on two well-known business units in Malang Raya, namely Yulia Maria Wedding and Dewi MUA and Hair. Data were collected through in-depth interviews with business owners as primary data sources and documentation of the business environment as secondary data. Data collection techniques included observation through Instagram to understand industry trends, semi-structured online interviews via WhatsApp to schedule conversations with industry parties, and

visual documentation in the form of studio photos, makeup results, and business facilities to assess the suitability of cosmetology SMK teachers' competencies with the real needs of the workforce. In order to obtain in-depth

information about the needs and expectations of the industry for the competencies of SMK cosmetology graduates, an interview guideline was employed, which is detailed in Table 1.

Tabel 1 Grid of Interview Guidelines

Research Focus	Indicators	Sample Question
Competency standards of cosmetology teachers needed to prepare SMK graduates according to the needs of the cosmetology industry in Malang.	Strategy	What strategies do you use to market your makeup business?
	Capital	How did you determine the capital planning to establish this makeup business?
	Planning	What are the challenges you face in running a makeup business in the midst of business competition today?
	Challenges	How do you provide this makeup service so that your makeup business is increasingly recognized?
	Services	What kind of communication skills are needed in your makeup business?
	Communication	How do you build relationships to build trust so far in this makeup business?
	Trust	What technology do you use to improve service in this business?
	Service	Is there a standard that must exist in the promotion to make the promotion informative?
Promotion	With the current situation what innovations do you do so that this makeup business remains survive and can compete with other makeup businesses?	
Innovation		

The data analysis technique used in this research is thematic analysis. Thematic analysis was chosen because it is suitable for processing qualitative data, especially data from in-depth interviews, observation, and documentation. This technique aims to explore phenomena, identify emerging themes or patterns, and understand the deep meaning of the events studied. Thematic analysis is widely used in social science research, including in the study of vocational education and cosmetology. By using this approach, it is hoped that the research can provide a complete picture of the suitability of the professional competence of cosmetology vocational teachers with the needs of the world of work in the cosmetology industry in Greater Malang.

3. Result and Discussion

The results of this study reveal that the implementation of the curriculum in the Makeup Artistry program at vocational high schools still faces serious challenges in adapting to the real needs of the workplace. The curriculum, designed based on Ministry of Education and Culture Regulation No. 16 of 2007 and the National Occupational Standards for Beauty (SKKNI), does include various technical competencies such as bridal makeup, character, and photography.

However, there is a gap between the curriculum content and the dynamic changes in the beauty industry. According to Düzgünçınar (2025), such gaps are common in vocational education because educational institutions often fail to update their curriculum content in line with the rapid development of the industry. This is reflected in reports from industry practitioners in the Malang Raya region, who assess that SMK graduates are still not sufficiently prepared to enter the workforce directly. Although students have received theoretical instruction, they lack the flexibility and adaptability needed to apply trending makeup techniques. Research observations indicate that teaching approaches remain dominated by conventional models and have not fully encouraged the exploration of project-based and contextual skills. This situation is exacerbated by limited collaboration between schools and industry players such as professional makeup artists and independent salons, which are the main drivers of the local beauty industry. In a study by Ariansyah et al. (2024), the main obstacle to curriculum renewal in vocational education lies in the weak feedback mechanism from the workplace, resulting in curriculum innovation that is not sustainable.

In addition to curriculum issues, teacher professional competence is also a major concern in improving graduate quality. Law No. 14 of 2005 mandates that teachers must not only master the subject matter but also be able to relate it to practical contexts in the workplace. Unfortunately, research findings indicate that most teachers have not received up-to-date training on modern beauty techniques. This aligns with the findings of Basuki & Joko (2022), who noted that the stagnation of teaching materials in vocational schools is due to low teacher participation in industry-based training. The lack of teacher involvement in the industrial sector leads to misconceptions in the delivery of technical skills. For example, industry practitioners often have to retrain graduates because they do not understand how professional practices work in the field. Yoshida (2025) even emphasizes that the effectiveness of teachers in integrating industry competencies into the classroom is greatly influenced by their direct field experience. Internationally, this phenomenon has also been observed by Utami et al. (2024), who highlight that vocational teachers who lack exposure to actual industrial practices tend to struggle in providing meaningful learning experiences for students. The lack of institutional support in building relationships with industry reinforces this gap. Additionally, monitoring of social media by business actors indicates that aesthetic standards in the industry are constantly evolving, including the integration of digital techniques and international makeup styles, while teachers do not have systematic access to this information.

The demands of the business world on vocational school graduates are also becoming increasingly complex. It is no longer sufficient to possess technical skills; the beauty industry now requires workers with critical thinking abilities, creativity, interpersonal communication skills, and digital literacy. Research by Patel et al. (2025) and Prasetya et al. (2025) has shown that the global transformation of the beauty industry is driving the integration of non-technical skills in customer service. In this context, Mahfud et al. (2025) note that the lack of authentic work experience among students makes graduates less adaptable to real-world professional situations. The same point is emphasized by Martini et al. (2021), who found that interpersonal skills and the ability to build personal branding are now key competencies in the beauty services sector. However, learning at vocational schools is still dominated by technical aspects and has not touched on relevant social skills. Observations of

teaching and learning activities show that students are not given enough space to develop entrepreneurial skills, explore trends, or communicate through digital media. Teachers have not systematically provided training related to marketing beauty services through online platforms, even though the industry currently relies heavily on social media to build networks and reach a wider market.

The above findings are consistent with several global studies showing that the relevance of vocational education to the world of work is largely determined by the synergy between the curriculum, teacher competencies, and market needs. For example, a study by Tacconi et al. (2021) in Italy found that vocational education that does not directly involve industry stakeholders in curriculum design tends to fail in producing graduates who meet market needs. Ahmad et al. (2023) also noted that the success of vocational curricula depends on the extent to which industrial practices are integrated into the learning process. On the other hand, research by Song (2025) confirms that teacher participation in dual system training, i.e., teaching while interning in industry, enhances the transfer of skills into the classroom. These findings reinforce the argument that improving the quality of vocational education is not enough with just the development of a standardized national curriculum, but also requires reform of the learning ecosystem that actively and sustainably involves the business world.

In response to these various challenges, structured and collaboration-oriented transformation measures are needed. Curriculum reformulation should involve local industry players as active partners so that teaching content can be updated in a contextual manner. Ruskin & Bilous (2020) support this collaborative approach by emphasizing the importance of cooperation between schools, government, and industry players in shaping a relevant and flexible vocational education system. Additionally, Teaching Factories should be maximized not only as technical training sites but also as business laboratories that integrate management, marketing, and real-service simulation aspects. Teachers need to be encouraged to participate in industry-based training on a regular basis and given access to the latest technology and information sources. In Gunherani (2023) research, the dual teaching approach was found to improve learning quality because teachers can balance their roles as educators and practitioners. By strongly integrating schools and the workplace, the

vocational education system will be able to produce graduates who are not only technically job-ready but also capable of becoming innovators in the competitive and ever-evolving beauty industry.

4. Conclusion and Suggestions

To address the challenges of aligning vocational education with the expectations of the beauty industry, this study concludes that the current curriculum in vocational beauty schools still emphasizes basic technical skills and has not yet integrated developments such as digital marketing, contemporary beauty trends, and business management. In addition, the professional competencies of teachers in beauty programs are not yet in harmony with the realities of the workplace due to outdated teaching strategies, minimal exposure to professional environments, and insufficient participation in relevant training programs. Today's beauty sector demands more than technical ability; it also requires creativity, the use of digital tools, personal branding expertise, and effective communication skills, which are not yet adequately developed through school-based instruction. Therefore, it is essential to conduct regular curriculum revisions involving direct input from industry representatives, to enhance teaching factories so they function as both practical learning centers and entrepreneurial incubators, and to improve teacher quality through structured internships and access to the latest technological developments. Strengthening partnerships between schools and businesses will help produce graduates who are competent, adaptable, and ready to succeed in the workforce. Future researchers are encouraged to explore this issue across a wider range of vocational schools, apply long-term study designs, and evaluate specific innovations in teaching that enhance teacher readiness and student success in the beauty profession.

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