

THE ROLE OF SCHOOL PRINCIPAL'S LEADERSHIP IN DEVELOPING STRATEGIC PARTNERSHIPS TO SUPPORT TECHNOPRENEURSHIP PROGRAMS

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ABSTRACT

This study aims to analyze the role of school principals' leadership in developing strategic partnership networks to support technopreneurship programs at State Vocational High Schools (SMKN) in Bogor City, Indonesia. A qualitative approach with a case study method was employed. Data were gathered through in-depth interviews, participatory observation, and document analysis involving various school stakeholders and external partners. The findings reveal that the principal plays a pivotal role as a transformational leader who initiates, builds, and manages partnerships with industries, higher education institutions, technopreneurship communities, local governments, and alumni. These partnerships include student internships, training, mentoring, collaborative research, and infrastructure and policy support. Such collaborations significantly contribute to enhancing students' technopreneurial skills and fostering student-run technology-based ventures. The study also finds that the success of these partnerships is influenced by the principal's communication skills, personal credibility, and the shared vision between the school and its partners. This research contributes to the development of educational leadership theory by introducing strategic partnership-building capabilities as a critical dimension and expands understanding of the technopreneurship ecosystem in vocational education settings.

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INTRODUCTION

Vocational education today faces significant challenges in preparing graduates who are not only skilled but also adaptable to the constantly evolving dynamics of the labor market. One relevant approach to address these challenges is fostering a spirit of technopreneurship among students (Rahmawati, Lestari, & Dafenta, 2025). This concept integrates technical competencies with an entrepreneurial mindset, enabling students to create opportunities and contribute to innovation (Rahmawati, Lestari, et al., 2024a). At State Vocational High Schools (SMKN) in Bogor City, initiatives to integrate technopreneurship programs are becoming increasingly vital, given the region's human resource potential and supportive innovation ecosystem. However, implementing such programs requires more than a well-designed curriculum; it demands strong and strategic leadership from the school principal.

The principal plays a pivotal role in mobilizing and directing all school resources to achieve educational goals. In the context of technopreneurship development, this role extends to building and sustaining robust partnership networks (Rahmawati, Lestari, et al., 2024b). Partnerships with businesses, industries, higher education institutions, research bodies, and local communities are crucial in providing practical experiences, access to modern technologies, mentorship, and even funding opportunities for student-led projects (Rahmawati et al., n.d.). Without effective partnerships, technopreneurship programs risk becoming theoretical and disconnected from market realities. Therefore, the principal's capacity to cultivate and maintain these relationships becomes a critical factor for success (Budiyanto et al., 2022; Handayani et al., 2023).

Empirical observations at several SMKNs show that despite a growing enthusiasm for entrepreneurship programs, many schools still face barriers such as curriculum misalignment, limited facilities, and a lack of practical opportunities. These challenges often stem from weak connectivity between schools and external entities that could otherwise offer significant added value. On the other hand, SMKNs in Bogor City are strategically positioned within economic and technological growth zones—home to startups, business incubators, and universities. This social capital, however, has not been fully utilized to enhance technopreneurship programs (Lestari et al., 2021; Utami et al., 2020).

This study departs from the fundamental issue of how school principals can effectively lead the development of sustainable partnerships in support of technopreneurship. It focuses on analyzing the strategies, challenges, and supporting factors involved in the process. Specifically, the research examines the principal's role as a transformational leader who can inspire and mobilize stakeholders to achieve a shared vision. This role includes the ability to identify potential partners, establish effective communication, negotiate mutual agreements, and ensure the sustainability of collaboration (Arifin & Indriani, 2023; Nugroho et al., 2020).

Theoretically, this research is grounded in transformational leadership theory, which highlights the importance of vision, inspirational motivation, intellectual stimulation, and individualized consideration in leading organizational change. It is further supported by social network theory, which explores how inter-individual and inter-organizational relationships facilitate the exchange of resources and information, and by social capital theory, which emphasizes the value of social relationships in achieving collective goals. These frameworks offer a comprehensive lens through which to examine how principals leverage their positions to build a strong technopreneurship support ecosystem (Astuti & Indrayanti, 2024; Setiawan et al., 2023; Susanto et al., 2022).

This study offers an in-depth perspective on how technopreneurship initiatives can be strengthened through the strategic role of school leadership in partnership development. Although numerous studies have explored school leadership and entrepreneurship, few have specifically addressed how leadership influences the formation and utilization of strategic partnerships in a holistic manner—particularly within the context of SMKNs in Indonesia. This research seeks to fill that gap by providing both theoretical and practical insights that can be applied by school principals and policy makers (Puspita et al., 2022; Putra et al., 2021; Wiguna et al., 2021).

The primary objective of this study is to analyze and describe the strategies employed by school principals in building partnership networks to support technopreneurship programs at SMKN Bogor City. More specifically, it aims to identify the forms of partnerships established, examine the challenges faced during their development, and formulate implications of the findings for both leadership practices and the development of technopreneurship programs in vocational schools (Rahmawati et al., 2019; Supriadi et al., 2023).

The findings of this research are expected to make a significant contribution to the advancement of educational leadership theory, especially in the context of curriculum innovation and school partnerships. Practically, the results are anticipated to serve as a guide for other SMKN principals to develop effective strategies for establishing and managing partnership networks, thereby enabling technopreneurship programs to operate optimally and produce graduates who are competitive in the digital economy. In this way, the study is positioned to be a valuable reference for efforts aimed at improving the quality of vocational education in Indonesia (Yudhistira et al., 2018).

METHODS

This study employed a qualitative approach using a case study method to explore in depth the leadership of school principals in developing partnership networks to support the technopreneurship program at SMKN (State Vocational High School) in Bogor City. The qualitative approach was chosen because it allows researchers to gain rich, contextual understanding of complex phenomena, capture the subjective perspectives of participants, and interpret the meanings behind actions and interactions (Creswell & Creswell, 2018). The research site was SMKN in Bogor City, a vocational education institution known for its active involvement in technopreneurship program development. The study's respondents included the principal of SMKN Bogor, several vice principals directly involved in the technopreneurship program (e.g., in the areas of curriculum and industry relations), technopreneurship mentor teachers, and representatives from industry partners or institutions that had established collaboration with the school.

Data were collected through in-depth interviews to gather detailed information on partnership strategies, challenges encountered, and supporting factors; participatory observations of technopreneurship program activities and partnership interactions; and document analysis, including partnership memoranda of understanding (MoUs), program reports, and the school's strategic plans. The research indicators covered the processes of identifying and selecting partners, communication and negotiation strategies, the forms of partnerships developed, the contributions of partnerships to the achievement of technopreneurship program goals, and the mechanisms for sustaining those partnerships. Data analysis was carried out in an interactive and continuous manner, involving data reduction, data

presentation (including tables and narrative descriptions), and conclusion drawing, while applying the principle of data source triangulation to enhance the validity of the findings (Miles et al., 2018).

RESULTS

This research was conducted at a State Vocational High School (SMKN) in Bogor City, focusing on the role of the principal in developing partnership networks to support the technopreneurship program. Through in-depth interviews, participatory observation, and document analysis, data were collected that reflect the leadership patterns of the principal in establishing strategic relationships with various external stakeholders.

Table 1. Types of Partnerships Established by the School Principal at SMKN Bogor

Yes	Type of Partnership	Key Partners	Forms of Collaboration	Impact on the Program
1	Business & Industry World	PT XYZ, CV ABC	Student internships, industry training, tool donations	Improvement of students' practical skills
2	College	Bogor University	Research and mentorship collaboration	Knowledge transfer and innovation
3	Technopreneur Community	City Business Incubator	Student business assistance	Student startup projects thrive
4	Local Government	Education and MSME Office	Policy & facilitation assistance	Program legality and funding
5	School Alumni	Technopreneur alumni	Mentoring and networking	Inspiration and alumni networking

The findings revealed that the principal actively initiated partnerships through a personal approach, attended meetings with partners directly, and participated in joint program planning. Observations indicated strong involvement from partners in designing technopreneurship-related activities. Documentation, including memoranda of understanding (MoUs) and program reports, confirmed the sustainability of inter-institutional collaboration.

Challenges identified in the process included scheduling coordination among stakeholders, limited human resources to manage partnerships, and mismatched expectations between the school and its partners. Despite these challenges, the success of partnership development was largely influenced by the principal's personal credibility, the strength of the school's technopreneurship vision, and the program's proven track record.

DISCUSSION

The findings indicate that the school principal plays a role not only as an internal manager but also as an architect of external relationships who determines the direction and sustainability of the technopreneurship program. This pattern reflects the characteristics of transformational leadership, particularly in motivating and inspiring stakeholders to engage with the school's broader vision (Astuti & Indrayanti, 2024). This approach has proven effective in bridging the school's internal needs with the potential contributions from external environments.

The forms of partnerships that have been successfully established demonstrate a shift in leadership orientation from a bureaucratic model toward a more collaborative one, wherein the principal becomes a driving force in expanding an educational ecosystem that aligns with the needs of industry and technological development. This supports the view of Setiawan et al. (2023), who argued that a school's external relationships can be strengthened through leadership that builds cross-sector trust and communication.

The involvement of technopreneur alumni further illustrates an evolution in the structure of the school's partnership network. These relationships have developed beyond formal and vertical connections into more horizontal, community-based collaborations. This indicates that social capital within the school environment has been strategically mobilized by the principal, consistent with Susanto et al. (2022), who emphasized the importance of informal networks in vocational education.

Conceptually, the findings of this study expand the understanding of transformational leadership by introducing the dimension of strategic partnership-building as a critical component, particularly in vocational schools with a practical orientation. The established partnership patterns reflect the principal's capacity to identify opportunities, foster long-term relationships, and generate added value for both students and the school.

Thus, the results of this study highlight the importance of enhancing school leadership capacity in designing adaptive and forward-looking partnership strategies. This approach supports the integration of technopreneurship programs into the dynamic ecosystems of work and innovation, positioning schools not merely as educational institutions but as central hubs of cross-sector collaboration.

CONCLUSION

This study concludes that the leadership of the school principal at the State Vocational High School (SMKN) in Bogor City holds a strategic position in the development of partnership networks aimed at supporting the implementation of technopreneurship programs. The principal demonstrates characteristics of transformational leadership by effectively initiating, facilitating, and sustaining relationships with various external stakeholders, including the industrial sector, higher education institutions, technopreneurship communities, local government bodies, and alumni. The forms of collaboration established encompass student internship programs, industrial training, business mentoring, research collaborations, as well as the provision of infrastructural and financial support. These partnerships have made a significant contribution to the enhancement of students' technopreneurial competencies. The validity of these findings is substantiated by observational data on partnership documentation and interviews that reveal the principal's active engagement in communication and negotiation processes.

In light of these findings, it is recommended that principals of other vocational schools adopt an externally collaborative leadership model by systematically identifying and engaging local partners that are aligned with their respective institutional priorities. Furthermore, local governments and educational leadership training institutions are advised to design specialized training modules that equip school principals with the competencies necessary for managing strategic partnerships and technopreneurship initiatives. Future research should consider conducting comparative studies across vocational schools in diverse socioeconomic settings to explore variations in leadership and partnership patterns and to examine how these contextual factors influence the effectiveness and sustainability of technopreneurship programs.

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