



# Overcoming Challenges in Malaysia's Technical and Vocational Education: A Path Forward for TVET

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## **ABSTRACT**

Technical and Vocational Education and Training (TVET) in Malaysia plays a vital role in the education system that create pathways for skills development and supporting the nation's economic growth and workforce objectives. Nonetheless, the sector faces significant challenges, mainly due to fragmentation and decentralization. The existence of multiple accreditation bodies and ministries results in inefficiencies and redundancies, which negatively affect the effectiveness of TVET programs. Additionally, prevailing perceptions of vocational training contribute to lower enrollment rates in these programs. This paper investigates the issues and challenges confronting TVET in Malaysia through a thorough content analysis. The findings emphasize the urgent need for a cohesive accreditation system and better collaboration among stakeholders. Proposed strategies aim to improve policy implementation and resource distribution, ultimately enhancing the TVET ecosystem. This study highlights the importance of a strong TVET framework in supporting Malaysia's socio-economic development and provides insights into the challenges faced over time. By addressing these issues, the research aims to foster a more effective and efficient TVET system that aligns educational outcomes with industry demands. In summary, this paper identifies current challenges in Malaysian TVET and offers a foundation for future research focused on leveraging opportunities and preparing the workforce for upcoming needs.

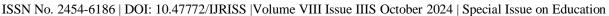
Keywords: Technical and Vocational Education and Training, Challenges, Malaysia

## INTRODUCTION

Technical and Vocational Education and Training (TVET) is a critical component in fostering economic growth and development globally. It equips individuals with the practical skills and technical knowledge required by various industries. In Malaysia, TVET is pivotal for achieving the national vision of becoming a high-income nation. The government has implemented policies like the National Dual Training System (NDTS) and the Malaysian Qualifications Framework (MQF) to enhance TVET quality and relevance (Rasul et al., 2015; Hasmori, 2015).

Despite these efforts, Malaysia's TVET system faces significant challenges. Governance is fragmented, involving multiple accrediting bodies and ministries, leading to inefficiencies and overlaps (Amin, 2023; Chang, 2018; Rasul et al., 2015). Inadequate funding restricts TVET institutions from upgrading facilities, adopting new technologies, and attracting qualified instructors, impacting the quality of education and training (Pang, 2011; Cheong 2016). Furthermore, there is often a disconnect between TVET programs and industry requirements, resulting in a mismatch between graduates' skills and employers' needs, affecting their employability (Ridzuan & Rahman, 2022; Subramaniam & Abd Aziz, 2022; Rasul et al. 2015).

Inconsistent quality assurance mechanisms also undermine the credibility and recognition of TVET qualifications, impacting employer and student confidence (Cheong, 2016). Additionally, TVET faces social





stigma, with many perceiving it as less prestigious than academic education, which affects enrolment and societal support (Amin, 2023; Mack et al., 2019).

Technical and Vocational Education and Training (TVET) in Malaysia has undergone significant evolution over the decades. Initially, vocational training was limited and primarily focused on basic skills for manual labor. However, recognizing the need for a skilled workforce to drive economic development, the Malaysian government has progressively enhanced the TVET system to meet the demands of a rapidly industrializing nation (Rasul et al., 2015).

The establishment of the National Dual Training System (NDTS) in 2005 marked a significant milestone in the development of TVET in Malaysia. The NDTS integrates formal education with practical workplace training, ensuring that students acquire both theoretical knowledge and hands-on experience (Hasmori, 2015). This system aims to produce a workforce that is well-equipped to meet industry needs, thereby supporting Malaysia's goal of becoming a high-income nation.

The Malaysian Qualifications Framework (MQF), introduced by the Malaysian Qualifications Agency (MQA), further enhances the TVET landscape by providing a unified system for the classification, accreditation, and recognition of qualifications (Chang, 2018). The MQF ensures that TVET qualifications are standardized and internationally comparable, thereby improving the mobility and employability of Malaysian graduates.

Despite these advancements, the TVET system in Malaysia faces significant challenges that hinder its effectiveness and impact. This concept paper explores the issues and challenges of TVET in Malaysia, focusing on governance, funding, industry collaboration, and societal perceptions. By identifying these challenges and proposing solutions, the study aims to enhance the efficiency and responsiveness of Malaysia's TVET system, aligning it with labor market needs and supporting socio-economic development.

## LITERATURE REVIEW

## **Human Capital Theory**

Human Capital Theory (HCT) posits that investing in education and training enhances individuals' productivity and economic value (Becker, 1962). This theory underpins much of the policy surrounding TVET, highlighting the importance of developing skills and knowledge as drivers of economic success (Gillies, 2011; Zaitseva et al., 2018). In the context of Malaysia, HCT supports the need for a robust TVET system to equip the workforce with the necessary skills to meet industry demands and contribute to national economic growth.

HCT suggests that education is an investment that individuals and societies make to increase productivity. This is particularly relevant in developing countries like Malaysia, where a skilled workforce is essential for economic development. Studies have shown that countries with higher investments in human capital tend to experience faster economic growth (Altiner & Toktaş, 2017). Moreover, HCT emphasizes the role of education in reducing inequality and promoting social mobility, which are critical for sustainable development (Zaitseva et al., 2018).

In Malaysia, the application of HCT in TVET is evident in government policies and initiatives aimed at enhancing the skills and employability of the workforce. For instance, the National Dual Training System (NDTS) integrates formal education with practical workplace training, ensuring that students acquire both theoretical knowledge and hands-on experience (Hasmori, 2015). This approach aligns with HCT's emphasis on the economic value of education and training, as it prepares individuals to meet the specific needs of the labor market.





## **Governance Theory**

Governance theory encompasses various perspectives on how decisions are made and implemented within organizations and systems (Rhodes, 1996; Lynn et al., 2000). Effective governance is crucial for ensuring that TVET programs are aligned with national development goals and industry needs. In Malaysia, the governance of TVET involves multiple stakeholders, including government agencies, educational institutions, and industry partners, making coordination and policy implementation complex (Rasul et al., 2015).

Governance theory in the context of TVET emphasizes the need for transparent, accountable, and participatory decision-making processes. This includes the establishment of clear roles and responsibilities, effective communication channels, and mechanisms for monitoring and evaluation (Lynn et al., 2000). In Malaysia, the governance of TVET is characterized by a fragmented structure, with multiple ministries and agencies involved in policy formulation and implementation. This fragmentation leads to inefficiencies and overlaps, affecting the overall effectiveness of TVET programs (Rasul et al., 2015).

Effective governance also requires the involvement of various stakeholders in decision-making processes. In the case of TVET, this means engaging government agencies, educational institutions, industry partners, and community organizations in the development and implementation of policies and programs. Such inclusive governance structures can enhance the relevance and responsiveness of TVET programs, ensuring that they meet the needs of all stakeholders (Lynn et al., 2000).

## **Global Perspectives on TVET Governance**

Different countries adopt unique models for TVET governance based on their socio-economic contexts. For instance, Germany's dual system emphasizes strong collaboration between vocational schools and industries, ensuring that students gain both theoretical knowledge and practical skills (Smith & Barabasch, 2012). This model has been successful in providing a seamless transition from education to employment, enhancing the relevance and quality of TVET programs. In contrast, countries like the United States have a decentralized approach, with significant variation in TVET governance at the federal, state and local levels (Valiente et al., 2019). These global perspectives offer valuable insights for improving TVET governance in Malaysia.

In Germany, the dual system integrates formal education and work-based learning, involving employers in the design and delivery of TVET programs. This model ensures that the skills taught are directly relevant to the needs of the labor market, thereby improving the employability of graduates (Smith & Barabasch, 2012). In contrast, the decentralized approach in the United States allows for greater flexibility and innovation in TVET provision but can also lead to inconsistencies in quality and access (Valiente et al., 2019).

# Previous Findings on TVET Challenges in Malaysia

#### Fragmentation and Decentralization

One of the major challenges in Malaysia's TVET system is the fragmentation and decentralization of governance. Multiple accrediting bodies, such as the DSD and MQA, operate independently, leading to overlaps and inconsistencies in accreditation and quality assurance (Amin, 2023; Rasul et al., 2015). This duality creates confusion and inefficiencies, making it difficult to maintain uniform standards across TVET institutions (Chang, 2018).

The fragmented governance structure results in a lack of coherence in policy implementation, with different agencies pursuing their own objectives and priorities. This can lead to duplication of efforts and resources, as well as inconsistencies in the quality of TVET programs. Furthermore, the lack of coordination among different stakeholders hampers the development of a unified strategy for TVET, affecting its overall effectiveness and impact (Amin, 2023; Rasul et al., 2015).





# **Inadequate Funding**

Funding inadequacies significantly affect the quality and reach of TVET programs in Malaysia. Limited financial resources constrain the ability of TVET institutions to upgrade facilities, adopt new technologies, and attract qualified instructors (Pang, 2011). Insufficient funding also hampers efforts to enhance the curriculum and provide students with up-to-date skills that match industry requirements (Chang, 2016).

Inadequate funding is a common issue in many developing countries, where governments often prioritize other areas of education over TVET. This results in underinvestment in TVET infrastructure and resources, affecting the quality of education and training provided. Moreover, the lack of financial incentives for private sector involvement further exacerbates the funding challenges faced by TVET institutions (Pang, 2011).

## **Lack of Industry Collaboration**

Effective industry collaboration is crucial for ensuring that TVET programs remain relevant and responsive to labor market needs. However, in Malaysia, there is often a disconnect between TVET institutions and industries, resulting in a mismatch between the skills taught and the skills demanded by employers (Ridzuan & Rahaman, 2022; Rasul et al., 2015; Subramaniam & Abd Aziz, 2022). This gap affects the employability of TVET graduates and limits the impact of TVET on economic growth.

Industry collaboration involves the active participation of employers in the design, delivery, and evaluation of TVET programs. This can include partnerships for work-based learning, internships, and apprenticeships, as well as advisory roles in curriculum development. However, in Malaysia, the lack of formal mechanisms for industry involvement and the absence of incentives for employers to participate in TVET programs hinder effective collaboration (Subramaniam & Abd Aziz, 2022).

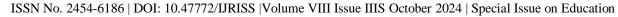
#### **Quality Assurance and Accreditation**

Quality assurance is a critical component of TVET systems, ensuring that educational programs meet specific standards of excellence. In Malaysia, the presence of multiple accrediting bodies, such as the Department of Skills Development (DSD) and the Malaysian Qualifications Agency (MQA), has led to inconsistencies in quality assurance processes (Cheong, 2016). Effective quality assurance mechanisms are essential for maintaining the credibility of TVET qualifications and ensuring that graduates possess the skills required by employers.

Global best practices in quality assurance involve establishing clear standards, regular assessments, and continuous improvement processes (OECD, 2016). For instance, the European Quality Assurance in Vocational Education and Training (EQAVET) framework provides a comprehensive approach to quality assurance, focusing on planning, implementation, assessment, and review (European Commission, 2017). Adopting similar frameworks can help enhance the quality and consistency of TVET programs in Malaysia.

In Malaysia, efforts to improve quality assurance in TVET include the development of the Malaysian Qualifications Framework (MQF), which provides a unified system for the classification, accreditation, and recognition of qualifications (Chang, 2018). The MQF aims to ensure that TVET qualifications are standardized and internationally comparable, thereby improving the mobility and employability of Malaysian graduates.

However, the presence of multiple accrediting bodies with differing standards poses a challenge to the consistency and reliability of quality assurance processes. To address this issue, a centralized accreditation body could be established to streamline quality assurance and reduce redundancies. This body would set uniform standards for all TVET institutions, ensuring consistency and credibility in TVET qualifications (Rasul et al., 2015).





# Social Perceptions and Stigma

TVET often faces social stigma, with many viewings it as a less prestigious alternative to academic education. This perception affects enrolment in TVET programs, as students and parents may prefer academic pathways over vocational training (Mack et al., 2019). Changing these perceptions is essential to increase enrolment and ensure that TVET is seen as a viable and valuable educational pathway.

Social perceptions of TVET are influenced by various factors, including cultural attitudes towards vocational education, the perceived value of TVET qualifications, and the career prospects associated with TVET programs. In Malaysia, the negative perception of TVET as a "second-class" education option deters many students from enrolling in TVET programs (Hong et al., 2022). Addressing this issue requires concerted efforts to promote the value and benefits of TVET, both in terms of career opportunities and personal development (Mack et al., 2019).

# **METHODOLOGY**

This study delves the secondary data from previous studies to understand the phenomenon surrounding TVET in Malaysia. In an attempt to explore the challenges faced by TVET in Malaysia over the years, the findings from previous studies were systematically compiled and analyzed. Using content analysis techniques, this paper highlights relevant issues and challenges that warrant further research.

The findings from previous literature are a well-suited approach for exploring complex and multifaceted issues, such as the issues and challenges in TVET. By reviewing the literature, the study aims to gain a comprehensive understanding of the issues and the different actors involved in the TVET ecosystem. The findings of this paper can inform the development of strategies for improving the TVET ecosystem (Rasul et al., 2015).

## DISCUSSION ON ISSUES AND CHALLENGES IN MALAYSIA'S TVET

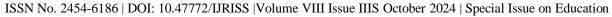
Governance issues are particularly prominent, with multiple accrediting bodies such as the Department of Skills Development (DSD) and MQA operating independently. This fragmentation leads to overlaps and inconsistencies in accreditation and quality assurance, resulting in inefficiencies and a lack of coherence in policy implementation (Rasul et al., 2015).

Funding inadequacies also pose a significant challenge to the TVET system. Limited financial resources restrict the ability of TVET institutions to upgrade their facilities, adopt new technologies, and attract qualified instructors. This lack of investment impacts the quality of education and training provided, ultimately affecting the employability of TVET graduates (Pang, 2011). In addition, the absence of financial incentives for private sector involvement further exacerbates these funding challenges, limiting the potential for industry collaboration and resource sharing (Cheong, 2016).

Effective industry collaboration is crucial for ensuring that TVET programs remain relevant and responsive to labor market needs. However, in Malaysia, there is often a disconnect between TVET institutions and industries, resulting in a mismatch between the skills taught and the skills demanded by employers. This gap affects the employability of TVET graduates and limits the contribution of TVET to economic growth (Subramaniam & Abd Aziz, 2022; Rasul et al., 2015).

Quality assurance mechanisms are another area of concern. The presence of multiple accrediting bodies with differing standards leads to variations in the quality of education and training across institutions. This inconsistency undermines the credibility and recognition of TVET qualifications, impacting the confidence of employers and students in the TVET system (Cheong, 2016).

Additionally, social perceptions and stigma associated with TVET play a significant role in shaping the effectiveness of the system. TVET is often viewed as a less prestigious alternative to academic education,





leading to lower enrolment rates and limited societal support. Changing these perceptions is essential for increasing enrolment and ensuring that TVET is seen as a viable and valuable educational pathway (Mack et al., 2019).

While significant strides have been made in the development of TVET in Malaysia, various challenges remain that need to be addressed. These challenges include fragmented governance, inadequate funding, lack of industry collaboration, inconsistent quality assurance, and negative social perceptions. Addressing these issues is crucial for enhancing the effectiveness and impact of the TVET system, thereby supporting Malaysia's socio-economic development.

# ADDRESSING THE CHALLENGES: PROPOSED SOLUTIONS

## **Unified Accreditation System**

A centralized accreditation body should be established to streamline quality assurance and reduce redundancies. This body would set uniform standards for all TVET institutions, ensuring consistency and credibility in TVET qualifications (Rasul et al., 2015). The establishment of a unified accreditation system would involve consolidating the roles and responsibilities of existing accrediting bodies, such as the Department of Skills Development (DSD) and the Malaysian Qualifications Agency (MQA), into a single entity. This would help to standardize the quality assurance processes and criteria, ensuring that all TVET institutions adhere to the same standards (Amin, 2023; Chang, 2018). A centralized accreditation body would not only enhance the quality and consistency of TVET programs but also improve transparency and accountability in the accreditation process.

Moreover, a centralized accreditation body would facilitate better coordination and collaboration among different stakeholders, including government agencies, educational institutions, and industry representatives (Rasul et al., 2015). Stakeholders can more easily align their efforts and resources towards common goals by having a single point of reference. This would also simplify the accreditation process for TVET institutions, reducing the administrative burden and allowing them to focus more on delivering quality education and training.

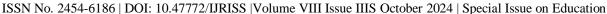
Additionally, a unified accreditation system can incorporate international standards and best practices, ensuring that Malaysian TVET qualifications are globally recognized. This would enhance the mobility and employability of Malaysian graduates, enabling them to compete in the global labor market. The centralized body could also be responsible for continuously monitoring and evaluating TVET programs, ensuring that they remain relevant and responsive to industry needs.

#### **Enhanced Stakeholder Coordination**

Improved coordination among government agencies, industry representatives, and educational institutions is essential for the effective governance of TVET. Regular consultations and partnerships with industry stakeholders will ensure that TVET programs remain relevant and responsive to market needs (Subramaniam & Abd Aziz, 2022).

Stakeholder coordination can be enhanced by establishing formal mechanisms for collaboration and communication, such as advisory councils, working groups, and partnership agreements. These mechanisms would provide a platform for stakeholders to share their perspectives, identify common goals, and develop joint strategies for improving TVET programs (Lynn et al., 2000). For example, advisory councils comprising representatives from government, industry, and educational institutions can provide strategic guidance and oversight for TVET initiatives.

Furthermore, regular consultations with industry representatives would help to ensure that TVET curricula are aligned with the skills and competencies required by employers. This can be achieved through industry-





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led curriculum development committees, where employers provide input on the design and content of TVET programs (Subramaniam & Abd Aziz, 2022). Such collaborative efforts can lead to the development of industry-relevant curricula that better prepare students for the labor market.

# **Increased Funding and Resources**

Adequate funding is crucial for upgrading facilities, adopting new technologies, and attracting qualified instructors. Government and private sector investments in TVET should be increased to support the development of high-quality TVET programs (Pang, 2011). To address the funding challenges faced by TVET institutions, governments should prioritize TVET in their budget allocations and explore innovative financing mechanisms, such as public-private partnerships and performance-based funding. Public-private partnerships (PPPs) can leverage private sector investment and expertise to develop and deliver TVET programs (Hussain et al., 2021). For instance, private companies can invest in the construction and maintenance of training facilities, while also providing equipment and technology that align with industry standards (Cheong, 2016).

Performance-based funding can also incentivize TVET institutions to achieve specific outcomes, such as high graduation rates, student employability, and industry partnerships. Under this model, funding is allocated based on the achievement of predetermined performance indicators, encouraging institutions to improve their programs and outcomes continuously (OECD, 2016).

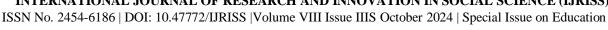
Additionally, providing financial incentives for private sector involvement in TVET, such as tax breaks and grants, can help to attract investment and resources from industry partners (Pang, 2011). These incentives can encourage companies to participate in the design and delivery of TVET programs, as well as offer work-based learning opportunities for students. Financial support can also be directed towards training and professional development for TVET instructors, ensuring that they possess the necessary skills and knowledge to deliver high-quality education and training.

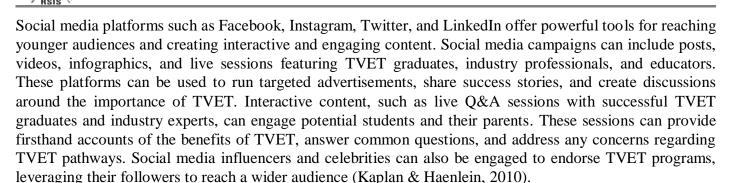
Moreover, scholarships and financial aid programs can be established to support students from disadvantaged backgrounds, ensuring that they have access to TVET opportunities. By reducing financial barriers to education, these initiatives can increase enrollment and completion rates in TVET programs, contributing to a more skilled and inclusive workforce.

#### **Public Awareness and Perception Campaigns**

Efforts should be made to change social perceptions of TVET through public awareness campaigns. Highlighting the successes and career opportunities of TVET graduates can help to shift public attitudes and increase enrolment in TVET programs (Yeap et al., 2021; Mack et al., 2019). Public awareness campaigns can be conducted through various channels, including media, social media, and community outreach programs. These campaigns should focus on showcasing the achievements and career paths of TVET graduates, as well as the benefits of TVET in terms of skill development and employability. Additionally, partnerships with industry and community organizations can help to reinforce positive messages about TVET and promote its value as a viable and valuable educational pathway (Mack et al., 2019).

Media campaigns play a crucial role in shaping public perceptions. Utilizing television, radio, newspapers, and online platforms can reach a broad audience and effectively communicate the benefits of TVET. These campaigns can feature success stories of TVET graduates who have achieved significant career milestones, highlighting their contributions to various industries and the economy. Testimonials from employers who have benefitted from hiring TVET graduates can also be included to emphasize the demand for TVET skills in the labor market (Pereira et al., 2020). Documentaries and short films showcasing the day-to-day activities and successes of TVET students and graduates can be broadcast on national television and shared on social media platforms. These visual narratives can provide a compelling and relatable insight into the TVET experience, helping to break down negative stereotypes and misconceptions.





In some countries, initiatives to improve the image of TVET have successfully increased enrolment and societal support. For instance, in Germany, the dual system is highly regarded and seen as a prestigious educational pathway that offers excellent career prospects (Smith & Barabasch, 2012). Similarly, in Switzerland, TVET is integrated into the broader education system and enjoys strong government and industry support, contributing to its high status and popularity (Gonon, 2014).

## CONCLUSION AND IMPLICATION

This paper identified five major challenges that could hinder the effectiveness of TVET in Malaysia, namely fragmentation and decentralization, inadequate funding, lack of industry collaboration, quality assurance and accreditation, and social perceptions and stigma towards technical and vocational education. However, most importantly, the governance of TVET in Malaysia is a critical area that requires further research to address existing challenges and improve the system's effectiveness. By adopting a more unified and coordinated governance structure, Malaysia can enhance the quality and relevance of its TVET programs, better aligning educational outcomes with industry needs and supporting the country's socio-economic development. This concept paper lays the groundwork for a comprehensive study on TVET governance, guided by a robust conceptual framework that integrates theoretical insights and practical considerations (Rasul et al., 2015; Cheong, 2016).

Addressing the challenges of TVET governance in Malaysia requires a multi-faceted approach that involves the collaboration of various stakeholders, adequate funding, and a commitment to improving the quality and relevance of TVET programs. By implementing the proposed solutions, Malaysia can strengthen its TVET system, ensuring that it meets the needs of both the labor market and the broader economy. This study aims to contribute to the ongoing efforts to improve TVET governance in Malaysia, providing valuable insights and recommendations for policymakers, educators, and industry leaders (Rasul et al., 2015; Cheong, 2016).

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