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Empowering Rural Communities Through Technical and Vocational Education and Training: A Development-Politics Perspective from Terengganu, Malaysia

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Abstract

Technical and Vocational Education and Training (TVET) is a strategic driver of rural empowerment, yet its reach across peripheral regions remains uneven. Anchored in Amartya Sen's development-as-freedom framework, this study posits that expanding rural TVET is governed primarily by political and administrative relations rather than mere infrastructural provision. Utilizing a qualitative, embedded single-case design focused on Terengganu, Malaysia, data were collected through policy-document analysis, field notes, and semi-structured elite interviews with 12 key informants across six actor tiers: federal policymakers, state leaders, implementing agencies, a statutory body, a federalism expert, and civil-society leaders. Sampling ceased upon cumulative thematic saturation. Findings reveal that while district-focused skills training, human-capital formation, and social mobility converge, equitable access remains filtered by subnational development politics. Shared federal–state empowerment goals are hindered by ideological and bureaucratic divergences, which shape both service delivery and rural mindsets. The study concludes that optimizing rural TVET pathways depends on pragmatic, non-partisan federal–state alignment, providing critical insights for multi-tiered governance in developing economies.

1. Introduction

Terengganu, a resource-rich state on Malaysia's East Coast, has in recent years become the focus of high-impact development initiatives financed by both the federal and state governments, the most visible being the East Coast Rail Link (ECRL), alongside high-technology ventures such as the Kenyir Floating Solar Farm and PETRONAS nature-based solutions initiatives, all intended to stimulate local economic growth. Yet the state presents a persistent paradox: the more resources, programmes and political attention are channelled into it, the wider the distance appears between the development that is delivered and the social progress that rural communities can actually feel. Although Terengganu enjoys an early history of social enlightenment through the Islah Islamiyah movement and its twentieth-century network of pondok schools (Clifford, 1992), the gap in rural social

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advancement has remained conspicuous across its districts. The roots of this paradox run deep: since crude oil and natural gas were first discovered offshore Terengganu in 1969, the state's petroleum wealth has coexisted with persistent rural disadvantage, a tension traced in analyses of the petroleum industry's uneven economic impact on the state (Saari et al., 2018).

Within this paradox lies a specific and under-examined weakness, namely the comparatively limited exposure of rural communities to Technical and Vocational Education and Training (TVET). Rural districts are constrained by uneven social infrastructure, including shortages of specialist teachers and modern science and computer laboratories in village schools, which weakens local human capital even where households possess land or have moderate agricultural output. This deficit is compounded by a digital divide of roughly twenty-two per cent in computer ownership between rural and urban households in Malaysia (World Bank, 2024), which directly limits the extent to which rural learners can benefit from modern, technology-mediated skills training. Nationally, TVET participation among school leavers has risen to about 54 per cent and is targeted to reach 70 per cent by the end of the Thirteenth Malaysia Plan, a rise attributed partly to improved graduate employability, including among rural students (Bernama, 2025). In Terengganu, public provision is anchored by federal skills institutions such as the Industrial Training Institute (ILP) and the Advanced Technology Training Centre (ADTEC) in Kuala Terengganu, the National Youth Skills Institute (IKBN) and GiatMARA rural centres, yet disaggregated state-level data on rural enrolment, completion and employability remain scarce (Jabatan Tenaga Manusia, 2025). Where local career pathways fail to materialise, rural youth migrate out, and community social capital erodes, leaving vulnerable groups with weaker bargaining capacity.

These conditions establish the imperative to empower rural TVET. In the framework of Amartya Sen's development as freedom (Sen, 1999), education and skills are not peripheral welfare items but constitutive of substantive freedom, expanding the social opportunities and economic facilities through which individuals can lead lives they have reason to value. Technical and vocational pathways are therefore a direct instrument of social mobility, connecting human-capital formation with stable, higher-value employment. Empowering rural TVET reframes the rural citizen from a passive recipient of aid into an agent of development, and in doing so enables a social-development paradigm rather than a narrow, income-focused poverty agenda.

This article argues that the essentials of TVET in empowering rural social development in Terengganu cannot be reduced to a question of provision alone; they are governed by the political and administrative relations that surround it. Drawing selectively on the study of the dynamics of development politics and their impact on rural social development in Terengganu, the article examines how TVET relates to the empowerment of rural communities, and how the dynamics between the federal and state governments, though united in aspiration, diverge in perspective in ways that shape both delivery and the mindset of the communities they intend to serve.

This study is guided by three objectives: to examine how TVET is positioned within Terengganu's rural social-development effort; to analyse how federal–state political and administrative relations shape rural TVET accessibility and delivery; and to identify the governance conditions under which rural TVET can expand substantive freedom. It correspondingly addresses three research questions: (i) How is TVET positioned within rural social development in Terengganu? (ii) How do development politics between the federal and state governments influence rural TVET provision? (iii) What forms of federal–state cooperation would strengthen its empowering reach?

2. Literature Review

The conceptual foundation for empowering rural communities through TVET is best located in Amartya Sen's theory of development as freedom, which reframes development as the expansion of the substantive freedoms people enjoy rather than the mere accumulation of income or physical output (Sen, 1999). Within this framework, deprivation is understood as capability failure across interrelated categories of freedom, particularly social opportunity, economic facilities and protective security (Miletzki & Broten, 2017; Prendergast, 2005). Education and skills sit at the centre of social opportunity, since a shortfall in quality education narrows access to well-paid employment networks and to active civic participation, while inadequate health and infrastructure weaken the physical capacity to participate in productive life (Crocker, 2005; Engerman, 2003). Read through this lens, TVET is not a discrete training programme but a mechanism for enlarging the real choices available to rural citizens. Sen's framework is adopted here not as a rival to human-capital theory but as its broader frame: whereas human-capital theory values skills chiefly for their economic return, the capability approach treats them as constitutive of the freedoms people have reason to value, thereby accommodating the social and political dimensions that a purely economic reading omits. It is likewise preferred over social-capital and empowerment theories, which the capability approach subsumes within a single account of the freedoms that skills expand; the findings extend it by showing how a politically decentralised TVET system mediates those freedoms.

A second strand of the literature distinguishes social development from poverty eradication. Malaysian scholarship has long observed that states may develop rapidly in physical terms yet generate new forms of poverty (Embong, 2003, 2008), a concern that resurfaces in Terengganu where rural social advancement lags despite

sustained investment. The distinction matters because interventions that treat rural citizens only as recipients of cash assistance can reduce measured poverty without building the capacity for communities to plan more resilient lives. Contemporary data reinforce the point, as the incidence of multidimensional poverty in Malaysia remains markedly higher in rural areas at approximately 6.7 per cent, compared with 0.5 per cent in urban areas (Wan Usamah, 2024), exposing the structural inelasticity of rural social development.

The third strand connects TVET to human-capital formation and social mobility. Skills training, when combined with education and infrastructure investment, opens new employment and raises the value of local assets, making it a primary driver of rural social mobility. Effective rural TVET is increasingly framed as cross-sectoral, gaining traction when technical and vocational modules are aligned to a district's dominant industry, such as commercial fisheries or agro-tourism, and when technical schools double as community ICT centres so that physical assets are used to their fullest (Kementerian Pembangunan Luar Bandar, 2019; World Bank, 2024). In comparative TVET research, aligning training provision to demonstrated labour-market demand is central to closing persistent skills gaps (Acharya et al., 2026). Empirical TVET research further shows that the empowering effect of skills provision depends on the competencies of those who deliver and lead it: structured competency frameworks strengthen TVET teacher quality and graduate outcomes (Lai et al., 2019), while human-resource-development studies demonstrate that closing the competency gap between industry sectors is central to converting training into productive employment. Leadership and other non-technical capabilities are equally decisive, since technically skilled workers frequently lack the leadership competencies needed to advance (Wan Muda et al., 2016). Integrated responses that pair TVET with smart agricultural technology, mobile health services and rural digital-economy initiatives are argued to be more effective than single-component interventions for at-risk groups (Kementerian Ekonomi, 2024).

Alongside these enablers, the literature identifies barriers that keep rural TVET under-utilised: geographical remoteness and weak transport, household-income constraints that make even subsidised training costly, and digital exclusion that limits blended provision (World Bank, 2024), together with demand-side barriers such as social perceptions of vocational education as a second-choice pathway, gendered enrolment, limited employer participation, and uneven programme quality where instructor competencies are weak (Lai et al., 2019).

A fourth strand situates rural development within the politics of Malaysian federalism. Pragmatic federalism envisages the federal government providing broad macro guidelines and strategic funding while the state adapts implementation to local realities of population distribution, geography and economic potential. Comparative evidence likewise shows that deliberate state policy can act as a catalytic force in aligning technical education and workforce development with industry needs (Tukhtabayev et al., 2026). Development is also theorised as an instrument of control, in which socioeconomic progress and public thinking are shaped to align with the interests of retaining power (Abd Manaf, 2013). The politics of development can therefore act as a filter, with cross-sector and infrastructure projects prioritised according to the interests of the governing party rather than objective indicators of need (Abdullah, 2022; Abdullah et al., 2018). Such filtering weakens the principle of deliberative democracy when communities outside the dominant political orbit are set aside, producing uneven access to social infrastructure and skilled-employment opportunities even where poverty levels are comparable.

Drawing these strands together, the study adopts a conceptual framework in which development politics conditions federal–state coordination, which shapes the allocation and implementation of TVET, and thereby the rural capabilities and social mobility it can generate—the capability approach specifying the ends, and pragmatic federalism the means by which they are advanced or obstructed.

Taken together, these strands frame the empowerment of rural TVET in Terengganu as a problem of governance as much as of provision. Expanding technical and vocational capability is a route to substantive freedom, yet its reach into the rural periphery is conditioned by the quality of federal-state cooperation and by the political culture through which development is interpreted. This review therefore motivates an empirical examination of how TVET is positioned within the state's rural social-development effort and of the political dynamics that shape its delivery.

3. Methodology

This study forms part of a broader qualitative research programme on rural development in Terengganu; within that programme, the present article focuses specifically on TVET as a mechanism of rural empowerment. It employs a fully qualitative research design to examine how development politics shapes the delivery of rural social development in the state. A qualitative–interpretive paradigm was adopted because the object of inquiry is the meaning that actors construct around development, and the way development politics, structural constraints and local culture interlace in their experience—phenomena that cannot be disentangled through numerical measurement alone (Creswell & Poth, 2018; Patton, 2015). The account below sets out the research design, sample, data collection and data analysis as they bear on the present article's focus on TVET and rural empowerment.

3.1 Research Design

The study used an embedded single-case design, with the state of Terengganu as the unit of analysis and six layers of actors embedded within it (Yin, 2018). This design was appropriate because the research questions are of the 'how' and 'why' type, and the phenomenon cannot be separated from the political and social context of the state. The embedded structure—spanning the federal, state, implementing-agency and community layers—enabled internal comparison across layers and guarded against conclusions resting on a single voice, since each layer contributes a different perspective on the same process (Flyvbjerg, 2006; Yin, 2018). The analysis was framed throughout by Sen's development-as-freedom perspective, treating the emergence of multidimensional poverty as a consequence of development processes that hinder human progress.

3.2 Sample

Data were gathered primarily through semi-structured elite in-depth interviews with twelve key informants distributed across six actor layers (see Table 1), supported by policy-document analysis and field notes. The choice of twelve informants was not a matter of convenience but followed the logic of multi-stage purposive sampling that combined criterion sampling, maximum-variation sampling and chain-referral sampling (Palinkas et al., 2015; Patton, 2015). This logic was adopted because the research questions demanded information-rich informants with direct knowledge of how rural development policy is made and implemented in Terengganu, rather than a sample that is statistically representative of a population. As detailed in Table 1, the twelve informants were distributed unevenly across the six layers, each tier of governance being represented by at least one authoritative voice: the federal government, comprising the Ministry of Rural and Regional Development (KKDW) and the Implementation Coordination Unit (ICU) (three informants); the state government and legislature, including a state assemblyman, the State Secretary and the State Economic Planning Unit (UPEN) (three); a statutory coordinating and implementing authority, the Central Terengganu Development Authority (KETENGAH) (one); a subject expert in political science and federalism (one); community leadership, represented by the chair of a Federal Village Development and Security Committee (JPKKP) (one); and civil-society organisations, including cooperatives and a neighbourhood association (three). Inclusion required direct and recent involvement in at least one rural development initiative over the preceding decade and a minimum of three years' experience, so that informants could compare at least two administrative cycles or policy phases.

Table 1 *Participant profile by actor category, number of participants, selection criteria and relevant experience*

Layer	Position of informant	Data sought	Sector
A	Deputy Minister, senior officers, Ministry of Rural and Regional Development (KKDW) and Directors, Implementation Coordination Unit (ICU) Terengganu	Rationale of federal rural-development policy; national priorities; logic of allocation to states	Federal government (3)
B	State assemblyman (Chukai State Constituency), State Secretary of Terengganu, State Economic Planning Unit, Terengganu (UPEN)	State interpretation of central policy; state priorities; centre–state negotiation dynamics	State government / legislature (3)
C	Central Terengganu Development Authority (KETENGAH)	Inter-agency coordination; implementation bottlenecks; flow of allocation to village level	Coordinating / implementing agencies (1)
D	Senior lecturer in political science and federalism	Conceptual validation; interpretation of centre–state relations; cross-checking of researcher inference	Subject expert (1)
E	Chair, Federal Village Development and Security Committee (JPKKP)	Reception of programmes at village level; community feedback channels; participation constraints	Community leadership (1)
F	Patron and chair of two cooperatives and secretary of a Rukun Tetangga (neighbourhood association)	Community experience of managing economic and social initiatives; local collective capacity	Civil-society organisations (3)

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3.3 Data Collection

In-depth interviews were conducted face-to-face and, where appropriate, online, with the informants' written informed consent and prior agreement on the attribution of statements, an ethical requirement given that elite informants are readily identifiable by the offices they hold (Aberbach & Rockman, 2002). Although the study did not require formal ethics-committee approval, it adhered strictly to established research-ethics principles, including voluntary participation, informed consent and confidentiality in handling sensitive statements. Fieldwork was carried out from August 2025 to the end of April 2026, with each interview lasting approximately 45 to 60 minutes. The number of informants was governed by the principle of information power rather than a pre-set target: because each informant occupied a strategically distinct position in the policy chain, a relatively small sample carried high analytical value (Malterud et al., 2016). To ensure the adequacy of the data, thematic saturation was operationalised explicitly rather than merely declared. Because several layers comprised only a single informant, saturation was assessed cumulatively across all twelve interviews rather than within individual layers; after each set of three interviews, newly emerging themes were logged in a saturation matrix, and data collection ceased once three consecutive interviews yielded no new thematic dimensions and the study's argument could be fully explained (Guest et al., 2020; Saunders et al., 2018). The final count of twelve reflected the point at which the six actor layers had each been sufficiently represented, and no further analytical dimensions were being generated. A confirming-and-disconfirming case was also selected deliberately, choosing at least one informant whose views were expected to run counter to the official narrative, in order to test the robustness of the study's argument (Miles et al., 2014; Patton, 2015).

3.4 Data Analysis

The in-depth interviews were first transcribed using TurboScribe, after which the transcripts were coded and analysed manually through thematic analysis with two-stage coding, in which initial codes were generated and then developed into themes that cut across the actor layers while preserving the specific context of each layer (Braun & Clarke, 2006; Miles et al., 2014). To secure the trustworthiness of the study, several strategies were combined—triangulation of sources, member checking, an audit trail and reflexive memos—together addressing the criteria of credibility, transferability, dependability and confirmability in qualitative research (Lincoln & Guba, 1985; Creswell & Poth, 2018). The in-depth interviews were conducted in the Malay language; the verbatim excerpts presented in the following section have been rendered into English for reporting while preserving the informants' intended meaning.

4. Findings

TVET emerges most clearly in the analysis of the education-socialisation dimension and the accessibility of social infrastructure among rural communities in Terengganu, where technical and vocational training is treated as a lever of human-capital formation and social mobility rather than as a stand-alone programme (Kementerian Pembangunan Luar Bandar, 2019). The findings reported here draw on that analysis and on the in-depth interview data and are organised around four themes: TVET as a cross-sectoral instrument of rural empowerment; the divergence between universal and poverty-bounded approaches to skills provision; the political filtering of educational and vocational opportunity; and the social infrastructure on which rural TVET depends.

4.1 TVET as a Cross-Sectoral Instrument of Rural Empowerment

TVET empowers rural communities only when it is delivered as part of an integrated, cross-sectoral response. The study found that basic infrastructure upgrades in FELDA and FELCRA settlements were most effective when paired with vocational training for rural youth, and that district-focused modules—commercial fisheries in Kuala Nerus or agro-tourism in Setiu—made the training relevant to local livelihoods (Kementerian Ekonomi, 2024). Rural technical schools were also envisaged as multi-use community ICT centres so that physical assets serve both formal learning and adult skills development. Federal economic-region initiatives illustrate how such skills-and-employment bundling reaches the rural periphery, as one state planning officer explained: *"If we look at projects under the Ministry of Economy through ECERDC, they help a great deal. For example, the biggest is the INTAN agricultural-entrepreneur project in Bukit Bidong, for pepper—almost 80 to 90 acres for 140 workers, paying RM2,000 to local people, not outsiders; it works like contract farming"* (Authoritative Informant 1, In-depth Interview, 22 October 2025).

This shows skills-based employment channelled to local people, converting a physical project into human-capital and income gains—the enlargement of economic facilities Sen's framework treats as constitutive of substantive freedom.

4.2 Universal versus Poverty-Bounded Skills Provision

Skills provision is also framed in divergent ways. A senior federal informant contrasted Terengganu's approach with that of Sarawak, where education and technology-oriented training are offered universally rather than being confined to the poor: *"if we look at Sarawak, although we are aligned with the Federal Government, Sarawak's approach—besides reducing poverty—has many additional programmes. Their programmes are not aimed only at the poor; they are general, a system… in terms of education, it is now free education to all. For courses in Sarawak, courses that lean towards technology, the state will fund them; if the cost is RM100,000, then that RM100,000 is borne by the state"* (Authoritative Informant 2, In-depth Interview, 23 October 2025).

The Sarawak experience, presented here as the informant's illustrative perception rather than as independent comparative evidence, suggests that a universal-yet-targeted approach may be more effective in addressing multidimensional constraints: free education and high-technology training reduce capability barriers for the general population, while subsistence support addresses the basic barriers that block full participation. By contrast, the study found that placing social development largely under the poverty umbrella, as tends to occur between the Centre and Terengganu, risks perpetuating a cycle of unfreedom in which individuals are seen only as recipients of assistance rather than as agents of their own development.

4.3 Political Filtering of Educational and Vocational Opportunity

Educational and vocational opportunity is also filtered by political and ideological considerations. One civil-society informant framed the relationship between knowledge and power in stark terms: *"it is easier to influence the poor than the well-off; so, if we impoverish people today, it makes them easier to control, but if we make people knowledgeable, it becomes hard to control them… This is clear in education when Terengganu focuses on [the religious streams] SRITI and SMIDI and neglects Imtiyaz and the elite schools"* (Authoritative Informant 3, In-depth Interview, 20 October 2025).

Whatever weight is given to this interpretation, it points to a mechanism the study documented elsewhere: when the siting of schools, technical facilities and cross-sector projects is decided partly by political support rather than by objective indicators of need, districts that are less 'strategic' in electoral terms receive weaker provision even where poverty is high (Abdullah, 2022). The consequence is a double marginalisation of rural communities—first by structural location and dependence on vulnerable economic sectors, and second by exclusion from the flow of developmental benefits, including skilled employment and training opportunities.

4.4 Social Infrastructure for Rural TVET

Rural TVET also depends on the social infrastructure available to receive it, since technical and vocational provision cannot empower communities that lack the physical and institutional platforms for it. Within the study, the accessibility of social infrastructure—village schools equipped with functioning computer laboratories, community halls, mobile clinics and reliable connectivity—emerged as a precondition for expanding substantive freedom rather than as a peripheral concern (Kementerian Pembangunan Luar Bandar, 2019). Provision, however, is markedly uneven: in some interior sub-districts of Hulu Terengganu and the small islands of Besut, access to stable electricity and high-speed internet remains below national standards, which constrains the rural digital-economy strategies and hybrid learning models on which modern TVET increasingly relies. This unevenness compounds the roughly twenty-two per cent rural–urban gap in computer ownership (World Bank, 2024), so that the reach of technical training is limited before a single course is delivered.

A further observation qualified the picture: field reports indicated that the maintenance of facilities is frequently neglected after an initial launch phase, with community halls under-used for want of structured programmes or skilled local management, so that infrastructure intended to anchor skills development lies idle. For rural TVET, this matters directly, because the same technical schools and community centres that could serve as multi-use hubs for adult skills training are precisely the assets most exposed to this political filtering.

Consistent with a pragmatic reading of federalism, the study found that the success of federally framed skills strategies in Terengganu depended on the state government adapting delivery to field realities. Where this calibration was weak, federal provision arrived in a form ill-suited to local livelihoods, and its empowering effect was correspondingly diluted.

A related finding concerned the interdependence of skills provision with other capability domains, particularly health. Many interior communities face long distances to clinics and a shortage of suitable transport, which reduces the protective security that allows individuals to participate consistently in training or productive work (World Bank, 2024). The implication for TVET is that technical training delivers its full return only when learners are healthy, mobile and materially secure enough to complete it and convert it into stable livelihoods (Kementerian Ekonomi, 2024).

Against this backdrop, the study found that the third sector performs an important intermediary function, channelling vocational and youth-oriented programmes into communities that the formal bureaucracy reaches

only slowly. Federal initiatives have begun to widen participation deliberately, extending community-development funding beyond village committees to youth associations and registered non-governmental organisations. A federal–state implementing officer described the direction of travel: *"The first step of the ICU, God willing, next year, is the Sejati MADANI programme—and not only Village Committees but also youth associations to be given allocations. NGOs registered with the Registrar of Societies or with the Ministry of Youth and Sports, we will provide for them. This is for next year; it is the ICU's idea that we conveyed to the Prime Minister, who announced it in the budget"* (Authoritative Informant 4, In-depth Interview, 22 October 2025).

The account illustrates how macro-level policy is operationalised through micro-level actors, with the state channelling funds and incentives to civil-society organisations so that they can run vocational programmes for rural youth and capacity-building for women. This is pragmatic federalism at the community scale: resources from different tiers are combined to deliver results more quickly.

The findings also underscored that infrastructure and skills provision must be matched by progressive local career pathways if empowerment is to hold. Where such pathways are absent, rural youth migrate out and community social capital weakens, leaving vulnerable groups with weaker bargaining capacity (Kementerian Pembangunan Luar Bandar, 2019). Where a coordinated response is absent, at-risk communities tend to receive a single component—typically cash assistance—without any easing of the structural constraints that keep them poor.

The study further found that the effectiveness of skills and welfare programmes is bound up with the social networks and community institutions through which they are delivered. Where trusted institutions anchor a programme, participation and follow-through improve. A community secretary explained how a single institution was used as the organising centre for his community's programmes: *"We carry out all our programmes at the mosque. They must come to the mosque; every briefing, every interview, they must come to the mosque. We make the centre there. All assistance, and to receive assistance, they must come to the mosque"* (Authoritative Informant 5, In-depth Interview, 16 April 2026).

This anchoring shows that social infrastructure is not only physical but relational: existing networks lower the threshold to participation and help skills reach those otherwise excluded. Taken across the study's five dimensions of social development—education, health, socioeconomic networks, social mobility and participation culture—education and skills emerge as the primary lever of rural social mobility. Yet the persistence of a rural–urban gap in multidimensional poverty (Wan Usamah, 2024) signals that the empowering potential of TVET is realised only where these dimensions are addressed together and the underlying social infrastructure is both accessible and maintained.

Taken together, the findings position TVET within Terengganu's rural social development as a primary route to rural social mobility, whose empowering potential is conditioned by two things the data make visible: whether skills provision is offered universally or confined to the poor, and whether educational and vocational opportunity is allocated based on need or political alignment.

5. Discussion

The findings indicate that TVET in Terengganu's rural communities is positioned as a primary route to human-capital formation and social mobility, yet its empowering reach is governed less by the availability of programmes than by the political relationship between the state and federal governments. A central observation is that the two tiers of government share the same aspiration to empower rural communities through education and skills but diverge in the perspective through which that aspiration is pursued. These findings extend prior TVET scholarship: the centrality of district-aligned, demand-driven provision is consistent with evidence that matching training to labour-market demand closes skills gaps (Acharya et al., 2026) and that state policy catalyses industry-aligned technical education (Tukhtabayev et al., 2026), yet the case shows that political-administrative relations, not provision alone, govern whether that alignment reaches the rural periphery. Comparative evidence reinforces this reading: rural human-capital formation is itself a principal driver of rural revitalisation and urban–rural integration (Miao & He, 2024), while regional analyses show that expanding demand-driven vocational training is necessary to align workers' skills with local industry needs and to curb the skills mismatch that leaves training economically unproductive (Gooptu et al., 2023).

The shared aspiration is visible on both sides. At the federal level, initiatives channelled through the East Coast Economic Region and agricultural-entrepreneur schemes seek to convert local labour into semi-skilled, income-generating work, while programmes such as Sejati MADANI extend participation to rural youth associations. At the state level, the ambition is equally explicit, as one statutory-body leader explained: *"The Terengganu state government must play a more aggressive role—aggressive meaning to think wisely, especially in its relationship with the federal government. We must build that relationship; we cannot do without it. We depend, if not fully, then at least eighty-five or ninety per cent, on the federal government. If you quarrel with the federal government, how will you obtain good policy or allocation? … In education we built Sekolah Imtiyaz Terengganu; from Imtiyaz an elite*

school; and from the elite school we must build its university, a garden of knowledge. So the mission is visible" (Authoritative Informant 6, In-depth Interview, 19 October 2025).

This account discloses two things at once. It confirms the state's genuine aspiration to build an educational and human-capital ladder, but it also reveals that the state's perspective is conditioned by a structural dependency on federal policy and allocation that the informant estimated at roughly eighty-five to ninety per cent, a figure that should be read as a perception rather than an audited fiscal ratio. Under such pragmatic federalism, the federal government supplies broad guidelines and strategic funds while the state adapts delivery to local realities; yet the same dependency means the state's room to pursue its own vision of rural TVET is constrained by the need to preserve cordial relations with the Centre. This structural dependency is consistent with the wider political economy of the state, in which development priorities and the flow of resources have long been mediated by Terengganu's relationship with the federal centre (Abdullah, 2022; Saari et al., 2018).

Where the perspectives diverge most sharply is in how skills provision is framed. The federal deputy minister's comparison with Sarawak—where technology-oriented courses and education are funded universally rather than being confined to the poor—implies a recognition, even within the Centre, that a universal capability approach is more effective than one tethered to poverty status. In the Terengganu case, however, rural social development has tended to remain bound to a poverty-eradication frame. Read through Sen's development-as-freedom lens, the consequence is that rural citizens risk being treated as recipients of assistance rather than as agents of their own development, which constrains the very substantive freedoms that TVET is meant to expand. This distinction maps onto the difference between the human-capital and capability models of education: the former values schooling chiefly for its measurable economic returns, whereas the latter treats education as constitutive of the substantive freedoms and agency through which people can shape lives they have reason to value (Robeyns, 2006; Sen, 1999).

Two further forces explain why a shared aspiration can produce divergent outcomes: ideology and bureaucracy. Ideology shapes which educational and vocational pathways are prioritised, a dynamic that a federalism expert linked to the way ideas are transmitted through community institutions: *"in the surau and the mosque, political sermons enter. What happens then? The people are already ingrained with those ideologies because it is not controlled … Where a state controls the mosques and suraus, that kind of ideological politics cannot take root as easily."* (Authoritative Informant 7, In-depth Interview, 23 October 2025).

Presented here as the informant's field interpretation rather than as fact, the excerpt points to a mechanism by which ideology becomes embedded in everyday institutions and, in turn, in the way rural communities perceive education, skills and progress. Bureaucracy compounds this. Cross-sector integration—the pairing of TVET with smart agriculture, ICT hubs and mobile health services that the findings identify as most effective—frequently stalls at the planning stage when ministries set separate objectives without a coordinating platform. The politics of development thus acts as a filter on who benefits from vocational and educational opportunity.

The combined effect of ideology and bureaucracy reaches into the mindset of the rural communities themselves. When development is experienced as something determined by structures and power relations rather than by collective community agency, a fatalistic disposition can take hold, in which the success or failure of development is read as the state's 'political fate' rather than as a process that citizens can shape through participation. This reading reflects the interpretations of elite and institutional informants and should be distinguished from the lived experience of rural residents, which the present study did not capture directly. This is precisely the condition that a capability-oriented, deliberative approach to rural TVET would seek to reverse. Reversing it, in Sen's terms, means widening the space for public reasoning so that rural citizens participate as agents in defining the ends and means of their own development rather than merely receiving provision determined elsewhere (Crocker, 2005; Sen, 1999).

6. Limitations

This study has several limitations. As an embedded single-case study of one state, its findings are context-specific and not readily generalisable to other states or to national policy. The small sample is deliberately weighted towards federal and state elites and administrators; rural trainees, instructors, employers and TVET graduates were not directly represented, so the account reflects institutional perspectives rather than the direct voice of rural communities. Several conclusions concern politically sensitive matters resting on informant perceptions that warrant further triangulation, and, as part of a broader research programme, the study was bounded by the questions for which the data were originally gathered.

7. Conclusion

This article set out to examine the essentials of TVET in empowering rural social development in Terengganu, drawing on a fully qualitative study of twelve key informants across six actor layers. The evidence supports a careful conclusion. TVET is a genuine and necessary instrument for empowering rural communities in Terengganu, expanding the social opportunities, economic facilities and social mobility through which rural

citizens can lead lives they have reason to value. Because rural communities remain comparatively less exposed to technical and vocational pathways, that potential cannot be realised without deliberate government intervention, and both the federal and state governments demonstrably share the aspiration to provide it.

The study concludes, however, that the empowerment of rural TVET in Terengganu is heavily conditioned by the dynamics of political development between the state and federal governments. Although their aspirations converge, their perspectives diverge, and that divergence is shaped above all by ideology and by bureaucracy. Ideology influences which educational and vocational pathways are prioritised and how they are delivered, while bureaucratic fragmentation and the political filtering of projects determine which communities gain access to skills and opportunity. Under a federal structure in which the state depends heavily on the Centre for policy and allocation, pragmatic federalism can either enable or frustrate rural TVET, according to the quality of cooperation between the two tiers.

Perhaps the most consequential finding is that these political dynamics reach into the mindset of the rural communities themselves. Where development is experienced as something handed down through structures and power relations, people come to view their own improvement through the narrow lens of what already exists, or of what is fed to them by prevailing political development, rather than as a horizon they can enlarge through their own agency. Empowering rural TVET in Terengganu therefore requires more than additional programmes; it requires genuine, pragmatic federal–state cooperation, delivery free from partisan discrimination, and a deliberative approach that treats rural citizens as agents rather than recipients. In practical terms, such cooperation could be operationalised through joint federal–state needs assessments, shared rural TVET planning committees, transparent district-level allocation criteria, systematic outcome monitoring, and structured industry participation in programme design. Without such alignment, TVET risks remaining a physical statistic rather than a true expansion of substantive freedom for the state's rural communities. Future research should extend this work through mixed-methods designs pairing district-level enrolment, completion and employability data with qualitative depth; through studies that include the rural trainees, instructors and employers under-represented here; and through comparison across states to test how differing federal–state relations shape rural TVET outcomes.

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Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

The authors confirm contributions to the paper as follows: ***study conception and design:*** *Md Razi Md Lazim, Muhamad Azwan Abd Rahman;* ***data collection:*** *Md Razi Md Lazim;* ***analysis and interpretation of results:*** *Muhammad Salman Abbas, Md Razi Md Lazim, Muhamad Azwan Abd Rahman;* ***draft manuscript preparation:*** *Md Razi Md Lazim, Muhamad Azwan Abd Rahman, Muhammad Salman Abbas. All authors reviewed the results and approved the final version of the manuscript.*

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