Impact Evaluation of SDG-Driven Solutions: An Analysis of Economic-Social-Environment Solutions and Return on Value (ROV)

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Abstract

The 17 Sustainable Developmental Goals (SDGs) initiatives have widely been implemented at both local and national levels throughout Malaysia. At local level, the impact evaluation of these initiatives is required to be carried out to validate its effectiveness of these community-based projects (CBPs) for their beneficiaries. In 2023, Selangor, the sole state in the Central two region, underwent impact evaluations for 19 community-based projects (CBPs) funded and monitored by the All-Party Parliamentary Group Malaysia - Sustainable Development Goals (APPGM-SDG). Employing a mixed-method approach integrating qualitative and quantitative methodologies, the evaluations drew data from project documents (including proposal, monthly and final reports), focus group discussion (FGDs) and site visit observation. Findings gathered from solution providers, project beneficiaries and evaluators observation were triangulated to provide a comprehensive understanding of the impact of the solution projects based on the three dimensions namely i) Economic-Social-Environment (Ec-S-Ev) Solutions, ii) Return on Value (ROV) Dimension, as well as iii) Impact Evaluation (IE) on 6 domains. The domains include Deep (Personal), Clear (Skills), Wide (Network), High (System), SDGs, and Gender. In the analysis of (Ec-S-Ev) solution, this paper emphasis on income generation which showcases the significant need for economic empowerment and promoting sustainable livelihoods to tackle poverty, especially urban poverty. Finding highlights 18 projects focused on providing economic solution through CBPs and two dimensions namely Deep, and Clear recorded high mean scores than the other four dimensions measured in this impact evaluation exercise. This research contributes to the field of project impact evaluation and provides valuable insights for practitioners, policymakers, and organizations striving to create sustainable development and uplift communities in Malaysia and beyond.

1. Introduction

The sustainable development goals (SDGs), established by the United Nations in 2015, aim to address global challenges including poverty, inequality, climate change, environmental degradation, peace, and justice (United

Nations, 2023). These goals are part of the UN 2030 Agenda, which includes 17 comprehensive SDGs with 169 targets aimed at achieving universal and indivisible goals. The principle of indivisibility means that the implementation of the 2030 Agenda should be based on integrated approaches rather than on siloed knowledge and policymaking (Bennich et al., 2020). Despite the world has committed to SDG to ensure that no one is left behind and basic needs are fulfilled to live a decent and respectful life, Malaysia, which adopted the SDG agenda in 2015, still appear to be distant from achieving it. Malaysia is one of the developing nations that is viewed to be relatively stable and doing well (Alston, 2019), yet there are still many members of the community living within the lower and below the poverty line (Tey et al., 2019). This issue was further exacerbated during the 2020 COVID-19 pandemic, which affected business, job stability, and health concerns, and made the nation more volatile and vulnerable. In response to these challenges, community-based projects (CBPs) have emerged as a crucial approach (more than ever) to address the underlying issues and uplift the lives of marginalized communities. CBPs are not a recent phenomenon (Desai, 1958). Individuals and communities have implemented CBPs for decades to improve their lives. Government agencies, local and international NGOs, and community leaders have designed and carried out numerous initiatives to support these marginalized and disadvantaged individuals (Puteh & Wan Abdul Halim, 2023). Significant financial resources have been invested in these projects, yet many individuals and communities continue to be left behind. So, the authors now pose the question: Are we doing it right? This entails assessing whether the projects fulfil the objectives we are aiming for, whether we are spending funds efficiently with the limited resources we have, what impact the projects have on the individuals taking part, and how sustainable the projects are to further empower the people and their communities. Malaysia has been actively localizing the SDGs through various collaborations and partners under the formation the All-Party Parliamentary Group Malaysia for Sustainable Development Goals (APPGM-SDG) in 2019, who works closely with local communities and Members of the Parliament (MPs) in Malaysia to create CBPs that align with the SDGs (Daud & Ramli, 2024). The APPGM's localization of SDG projects to help Malaysian communities solve socio-economic issues aligns with the Malaysian government's initiative towards achieving Technical and Vocational Education and Training (TVET) goals. Malaysian TVET programs teach practical skills and provide relevant information that improves employability and socioeconomic possibilities. Since these CBPs often provide hands-on experience and soft skills like teamwork, problem-solving, and communication, these training, once ingrained in the participants, will increase their value in the job market.

This article is based on the final impact evaluation report of CBPs in the Central (2) region, conducted by the authors who were appointed as external evaluators for cohort 3 before reporting it back to APPGM-SDG committee. The Central (2) region encompass 7 parliaments. All the selected CBPs work closely with the members of the parliament of the area. The assessment then looks at the impact in these domains–Deep (Personal), Clear (Skills), Wide (Network), High (System), SDGS, and Gender. These domains were included as part of the ROV analysis. Nonetheless, it is not the intention of this paper to suggest which project is better than the other–rather it is to highlight the type of impact each project has which can be beneficial for the future implementers and funders–what is the 'right' one for them. They can make more informed decisions on the ROV that they want, the budget allocation they will pay per pax, and the sustainability of the project and the future of the community that they are assisting. These projects aim to empower local communities to identify their challenges and design and implement solutions that are tailored to their specific needs. They prioritize community involvement and participation, recognizing that the people directly affected by the issues are best positioned to understand their circumstances and create sustainable solutions.

2. Community Empowerment

Community empowerment in this context comprises of integration of TVET and SDGs via CBPs.

2.1 SDGs Localization in Malaysia

SDGs localization involves adapting, implementing, and monitoring these global objectives at local levels to ensure their relevance and achievability within specific regions. The localization of the SDGs in Malaysia has shown significant progress, though it has encountered various challenges and fluctuations along the way. Malaysia has made notable strides in several SDG areas, mainly a significantly reduced poverty over the decades, with absolute poverty rates dropping from 49.3% in 1970 to 0.4% in 2016 (Alston, 2019). Initiatives such as the 12th Malaysia Plan and various poverty eradication programs have contributed to this progress. While absolute poverty has decreased, relative poverty and income inequality persist. The disparity in income distribution means that while the overall poverty rate is low, a significant portion of the population still struggles with lower income levels and limited access to opportunities (Tey et al., 2019). To address these challenges and accelerate SDG progress, Malaysia has strengthened its efforts through the establishment of the first series of bipartisan cooperation under APPGM in 2019. The APPGM-SDG focuses on inclusive and participatory approaches, ensuring that the benefits of sustainable development reach all segments of society regardless of the party lines, and fostering local leadership in the pursuit of the SDGs (Yusof & Sanusi, 2021).

In the central region of Malaysia, particularly the Selangor state, various initiatives have been carried out under the Iltizam Selangor programs namely the Iltizam Selangor Penyayang (ISP) welfare program, Iltizam Selangor Sihat (ISS) health initiatives, the Selangor Micro Entrepreneur Fund, among others. These initiatives demonstrate the state government's commitment to addressing various aspects of poverty and improving the quality of life for its citizens, reflecting a deep understanding of grassroots issues (Selangor Journal, 2024). Despite these efforts, challenges persist, particularly in urban areas such as Petaling Jaya and Kuala Selangor, where high population density, inadequate infrastructure, poor waste management and sanitation, insufficient parking, and a lack of recreational spaces are prevalent. Schools in low-income areas face funding shortages, leading to truancy and drug use, while Kuala Selangor also struggles with overpopulated schools, limited job opportunities, lack of healthcare centers and hospitals, poor public transport, inadequate waste management, poor internet connectivity, and various social ills (Selangor Journal, 2024). This indicates that more effort is necessary. Integrating with industry, external parties, and solution providers can help address these isolated issues in the central region of Malaysia.

2.2 Community Based Projects for Sustainability

All of the APPGM-SDG projects are CBPs. Effective community engagement and participation are fundamental to the success of sustainability of CBPs. According to Lachapelle (2008), community involvement not only fosters a sense of ownership but also ensures that projects are culturally relevant and tailored to local needs. For instance, the "Komuniti Hijau" (Green Community) initiative promotes environmental awareness and sustainable practices through community-led activities such as recycling programs and urban gardening (Awang et al., 2024). CBPs often face significant challenges when it comes to ensuring the sustainability of their initiatives, establishing clear directions, and implementing effective monitoring and evaluation systems (Maijo, 2021). One of the primary obstacles is the sustainability of projects, as they often rely heavily on external funding sources that may not be sustainable in the long term (Oino et al., 2015). Without proper planning for capacity building within the community, projects may struggle to maintain momentum once initial funding ends, lacking the necessary skills, resources, and infrastructure to sustain their activities independently.

Moreover, a lack of community ownership and participation can further jeopardize sustainability, as community members may not feel invested in the project or lack a sense of ownership, leading to decreased engagement over time (Oino et al., 2015). Another challenge is the lack of clear directions in CBPs. Without well-defined goals and objectives, projects may face ambiguity in direction and outcomes. Inadequate needs assessments and stakeholder consultations can result in mismatched expectations and a lack of alignment between project activities and community needs, potentially leading to disengagement or resistance from community members (Shava & Thakhathi, 2016). This undermines the effectiveness of the project and hinders its ability to achieve meaningful impact.

2.3 Technical and Vocational Education and Training (TVET)

One of the significant focuses of localizing SDGs and CBPs is integrating it with TVET. The Malaysian government views TVET as essential to support economic growth and address the skill gap. TVET based economic projects which integrate with SDGs are seen as able to promote inclusive and sustainable economic growth, decent work, and lifelong opportunities for all groups. TVET programs, overseen by entities like the Ministry of Education and the Department of Skills Development (DSD), are diverse and encompass formal vocational education and skills training (Hamid et.al, 2023). In parallel, CBPs, focusing on initiatives such as infrastructure development, environmental conservation, and socio-economic empowerment, address local challenges through grassroots efforts. The integration of TVET offers several advantages. TVET institutions provide specialized training and capacity-building programs tailored to community needs, empowering individuals with the technical skills required for project implementation (Salleh et al., 2023). Collaborations between TVET institutions, community organizations, and industry partners facilitate the development of relevant training programs, ensuring alignment with local needs (Salleh & Sulaiman, 2017).

Additionally, TVET programs often include components on entrepreneurship and innovation, fostering an entrepreneurial mindset among participants and enabling them to initiate sustainable development projects within their communities. Despite these benefits, challenges persist, including resource constraints, skills mismatches, and limited awareness and participation (Salleh & Sulaiman, 2017). Overcoming these challenges requires concerted efforts to enhance the relevance and accessibility of TVET, strengthen partnerships between stakeholders, and promote the value of vocational education (Gagnon, 2022). Through strategic collaborations and targeted interventions, Malaysia can harness the potential of TVET to drive inclusive and sustainable development at the grassroots level, empowering individuals and communities to address local challenges and build a better future. Thus, it is the objective of this paper to further discuss the role of TVET based economic projects to uplift the wellbeing of the marginalized group and communities under SDG flagship.

3. Methodology

Employing concurrent mixed-method approaches, this paper aims to consolidate the impact evaluation of 19 CBPs aligned with SDG in Selangor state, Malaysia. The impact evaluation focuses on 3 dimensions namely Economic-Social-Environment (Ec-S-Ev) Solutions, Return on Value (ROV) Dimension, as well as Impact Evaluation (IE) on 6 Domains. As depicted in Table 1, 3 projects were located in Petaling Jaya, 5 in Selayang, 3 in Sungai Buloh, 2 in Kuala Selangor, and 1 in Sepang, Puchong, Subang, Klang, Kuala Langat, and Hulu Selangor respectively. The evaluation of these projects employed 3 methods, namely document review (DR), focus group discussion (FGD), and site visit (SV). The DR involved examining project-related documents such as the Project Proposal, Monthly Report, and Final Report, as well as the photos and videos attached to these reports. The documents were recorded from November 2023 to January 2024.

Table 1 *Project background and methods of impact evaluation for 19 SDGs projects*

No	Location	Project Name	Evaluation Method		
			DR	FGD	SV
1	Petaling Jaya	Y22-SP004	x		
2	Selayang	Y22-SP007	x		
3	Selayang	Y22-SP065	x	x	x
4	Selayang	Y22-SP066	x		
5	Sg. Buloh	Y22-SP081	x		
6	Petaling Jaya	Y22-SP088	x		
7	Sepang	Y22-SP098	x	x	x
8	Kuala Selangor	Y22-SP106	x		
9	Puchong	Y22-SP122	x	x	x
10	Petaling Jaya	Y22-SP123	x		
11	Selayang	Y22-SP128	x		
12	Kuala Selangor	Y22-SP129	x		
13	Klang	Y22-SP133	x	x	x
14	Subang	Y22-SP135	x		
15	Sg. Buloh	Y22-SP140	x		
16	Sg. Buloh	Y22-SP166	x	x	x
17	Kuala Langat	Y22-SP172	x		
18	Hulu Selangor	Y22-SP179	x	x	x
19	Selayang	Y22-SP190	x		
	Total: DR=19; FGD=6; SV=6		**19**	**6**	**6**

Note: DR=Document Review; FGD=Focus Group Discussion; SV=Site Visit

Additionally, to streamline the investigative process of SVs and FGDs, a judicious decision was made by APPGM-SDG to focus only on 30% of the projects. As a result, 6 selected projects were visited as indicated in Table 1. Despite comprising only one-third of the total projects, the selection process was meticulously carried out. It was based on a predefined formula that prioritizes successful, problematic, and questionable projects, screening from their proposals and reports. The purpose of FGD and SV is to observe the projects to further validate the findings from the review of documents. Both SV and FGD were held between 13 December 2023 to 28 December 2023. This FGD session is crucial to further validate the impacts from beneficiaries' point of view. Each project was represented by 2 beneficiaries. The FGD was scheduled to last for one and a half hours, providing sufficient time for a group of 6 to 10 participants. This limitation was implemented to facilitate better control over the discussion and to ensure that each individual had ample opportunity to share their insights and observations effectively (Khan & Abedin, 2022; Hasnawati et. al, 2023). The interview with the solution provider was conducted following the FGD to obtain additional information that supports the data gathered from the document review. The session was conducted in both Bahasa Malaysia and English to accommodate the varying language proficiencies of the beneficiaries and the solution provider.

4. Findings and Discussion

This article provides a complete analysis of the findings from the IE conducted by the Central 2 team, focusing on 3 dimensions namely Economic-Social-Environment (Ec-S-Ev) Solutions, Return on Value (ROV) Dimension, as well as Impact Evaluation (IE) on 6 domains. The evaluation of the Ec-S-Ev solutions assesses the core focus of the project which informs the pressing needs of the community. As for the ROV dimension, the CBPs were closely examined to determine the effectiveness in attaining their desired results that can provide important insights to the stakeholders. This article also provides an assessment of the IE on 6 domains, which covers a range of project

impacts on the participants, their significant others, and the community such as personal growth, skill improvement, network growth, systemic transformation, alignment with SDGs, and gender parity. The findings reported are aimed to provide useful and relevant information for policymakers, practitioners, and stakeholders participating in community development initiatives.

4.1 Economic-Social-Environment (Ec-S-Ev) Solutions

The SDG projects aim to provide sustainable solutions across 3 main aspects namely economy, social, and environment. The economic (Ec) solutions or projects aim to create or increase participants' income through entrepreneurial initiatives. While the social (S) solutions or projects address the social inclusion, equality and well-being aspects. Environment (Ev) solutions or projects, on the other hand, aim for environmental conservation, especially endangered or vulnerable ecosystems. All projects are classified under these 3 classifications by impact evaluators (IE) according to their alignment with SDG aspiration. Table 2 below lists the classification of solutions for the 19 SDG projects in the Central 2 Region. These projects are summarized according to the solutions category.

Table 2 *Classification of solutions for 19 SDGs projects in central 2 region*

No	Location	Project Code	Classification of Solutions		
			Ec	S	Ev
1	Petaling Jaya	Y22-SP004	x		x
2	Selayang	Y22-SP007	x		
3	Selayang	Y22-SP065	x	x	
4	Selayang	Y22-SP066	x	x	
5	Sg. Buloh	Y22-SP081	x	x	
6	Petaling Jaya	Y22-SP088	x	x	
7	Sepang	Y22-SP098	x		
8	Kuala Selangor	Y22-SP106	x		x
9	Puchong	Y22-SP122	x		x
10	Petaling Jaya	Y22-SP123	x		x
11	Selayang	Y22-SP128	x		
12	Kuala Selangor	Y22-SP129	x		x
13	Klang	Y22-SP133	x	x	
14	Subang	Y22-SP135	x	x	
15	Sg. Buloh	Y22-SP140	x	x	
16	Sg. Buloh	Y22-SP166	x	x	
17	Kuala Langat	Y22-SP172		x	
18	Hulu Selangor	Y22-SP179	x		
19	Selayang	Y22-SP190	x		
	Total		**18/19**	**9/19**	**5/19**

Note: Ec = Economic solution; S = Social solution; Ev = Environment solution

Based on the classification of solutions for 19 projects, it was found that 18 projects focused on providing economic solutions for the community, 9 on social solutions and 5 concentrated on environmental solutions. The prevalence of economic interventions in Selangor highlights the pressing need for interventions targeting the economic difficulties of the community which in turn can enhance livelihoods and life chances (Rahman et al., 2023; . This is followed by a significant emphasis on social solutions, as seen by the allocation of 9 projects. The solutions are strategically tailored to provide direct support to marginalized groups such as underprivileged youths, nearly released prisoners, and refugees, and indirectly to women heading households (Hasan et al., 2023). These targeted interventions aim to prevent community members or their family members from being drawn into delinquency, criminal activities, or other social issues (Rahman et al., 2023). By concurrently addressing economic and social concerns, these initiatives aim to promote comprehensive and sustainable development that elevates communities and improves their overall welfare (Salleh et al., 2023; Syahirah et al., 2023).

4.2 Impact Evaluation Dimensions Based on Return on Value (ROV)

The ROV evaluation was conducted based on review of main documents namely (i) proposal, (ii) monthly report, (iii) final report including video and photos, (iv) SV and (v) FGD. It is important to note that for ROV analysis, 2 CSO projects were excluded namely Y22-SP004 and Y22-SP007 due to their incomplete status. The ROV impact is evaluated based on 6 dimensions namely deep, clear, wide, high, SDG, and gender. Each dimension is ranked from

score 1 to 5. For each of the solution projects, the analysis was carried out by calculating the mean value for each of the 6 dimensions. The range of mean value and its interpretations are: exhibited in Table 3 below as a guideline.

Table 3 *Range of mean value and interpretation*

Range of Mean Value	Interpretation
1.0 to 2.4	Low
2.5 to 3.4	Moderate
3.5 to 5.0	High

Source: Oxford & Burry-Stock (1995)

Table 4 summarizes the mean score for all dimensions. The table also indicates the classification of projects based on mean value score.

Table 4 *Analysis of mean score of ROV for all 19 projects under central 2 region*

No	Project Code	Deep	Clear	Wide	High	SDGs	Gender
1	Y22-SP004			Excluded from ROV analysis			
2	Y22-SP007			Excluded from ROV analysis			
3	Y22-SP065	5	5	4	5	4	2
4	Y22-SP066	4	5	3	3	3	2
5	Y22-SP081	4	5	4	4	3	5
6	Y22-SP088	2	1	1	1	2	1
7	Y22-SP098	5	5	4	5	2	2
8	Y22-SP106	3	3	3	1	2	5
9	Y22-SP122	4	5	5	3	2	5
10	Y22-SP123	4	5	4	4	2	5
11	Y22-SP128	1	2	1	1	4	4
12	Y22-SP129	4	5	3	4	4	2
13	Y22-SP133	4	5	4	4	2	1
14	Y22-SP135	4	5	3	3	3	2
15	Y22-SP140	4	5	3	3	3	2
16	Y22-SP166	4	5	5	3	2	1
17	Y22-SP172	3	3	4	1	4	5
18	Y22-SP179	4	5	4	4	2	5
19	Y22-SP190	4	5	3	1	4	5
	Total Score	63	74	58	50	48	54
	ROV Mean Score	3.7	4.3	3.4	2.9	2.8	3.1
	Level of Score	High	High	Medium	Medium	Medium	Medium

Note: (1) Based on score 1-5 in each domain; (2) Two (2) CSO Projects (Project No. 1 and Project No. 2 are excluded from analysis

Based on the mean score, it was found that two dimensions namely Deep, and Clear recorded high mean scores of 3.7 and 4.3 respectively. The other four dimensions which are Wide (3.4), High (2.9), SDG (2.8), and Gender (3.1) recorded moderate mean scores respectively. The findings further indicate that the projects offered by solution providers have been beneficial for the beneficiaries, particularly in terms of the acquisition of new skills (Clear) and personal emotions (Deep) (Rahman et al., 2023).

Projects that focused on revenue generating and skills development tended to score 4 and 5 on the 'Deep' dimension which measuring the personal impact. A score of four indicates a significant transformation in participants' confidence and self-esteem, suggesting that these initiatives have effectively developed the feeling of belief and self-assurance. Conversely, a score of 5 indicates that people not only undergo substantial personal transformations but also assume the role of catalysts for change within their communities. They express gratitude for the personal growth they have experienced and actively contribute to fostering positive developments in their environment (Khalid et al., 2017). To illustrate the impact of projects that received a perfect score (5 points), beneficiaries involved in digital empowerment program expressed feelings of happiness and enjoyment for joining the project. They obtained new knowledge on doing digital marketing through social media such as TikTok, Facebook, Instagram and Google Page, which previously was an unfamiliar concept to them. The excitement stems from witnessing how this new digital skill they learnt translated into e-commerce, able to attract outside localities as many people looking for their products and services in the clothing business. This is evidenced as follows:

"Earlier I felt too scared and not confident. Now I feel so happy and this builds self-confidence in me to continue with this sewing project. I am happy when my customer is happy."

The significant influence of these initiatives on individuals encompasses both their personal development and their ability to bring about beneficial transformations within their broader social environments (Salleh et al.,

2023). Therefore, these projects possess significant importance for funders and stakeholders who aim to create a substantial influence on the self-development of the participants who would then be the agent of change.

For the 'Clear' dimension, which assesses the skills acquired for income generation, projects such as business hubs, vocational training workshops, and revenue-generating initiatives have received ratings of 4 and 5. These programs have the objective of providing participants with practical skills that are not only applicable to their professional endeavors but also possess the capacity to generate income (Syahirah et al., 2023). For example, initiatives such as the Y22-SP065 and Y22-SP066 programs, which aim to empower women by equipping them with entrepreneurial skills, equip women with the necessary tools and skills to set up and oversee sustainable enterprises. Likewise, vocational training workshops like the Y22-SP081 and Y22-SP135 equip participants with practical expertise in mobile phone repair and baking, respectively. For example, participants of baking highlighted that they gained new knowledge and skills related to correct baking techniques and learned how to use more ingredients. Participants also are more confident in trying new recipes instead of the traditional cookies and cakes such as puffs, tarts and other modern recipes given the fundamentals that they acquire from the projects. The participants interviewed by the authors rated their technical skill level as 9 out of 10. They are more confident and self-sufficient in pursuing baking with minimal supervision. This is indicated in below remarks:

"I am happy to learn new skills. This program teaches me baking skills and business skills. For baking skills, we learn the correct way for baking, correct ingredients and recipes."

Another example is from the chili fertigation project (Y22-SP179). The beneficiaries acknowledge that they did gain new knowledge and skills as well as learned about the usefulness of cocopeat and the specific way of growing chili. With the newly acquired skills from this project, they learned how to carry out modern agriculture using standard procedures and grow chilies more systematically and efficiently. They are more confident and self-sufficient to pursue the chili cultivation project even without supervision. Below is a more elaborated quote that showcases the sentiments of the participants about this project related to the technical skill. Quoting one of them:

"You get a new skill. Plant chili peppers use cocopeat. There is a ratio according to the type of tree. You can't simply put; it won't be a tree later. I learned a new skill on how to measure fertilizer and insecticide for chili plants."

The participants also learned other relevant and needed business skills for example basic finance and cleanliness which are imperative for participants who will embark on the food business. Below is the feedback from them:

"We have to do the math ourselves. Use the money allocated to buy cooking ingredients. You have to be good at choosing which store is cheap. After that, I thought about how much I wanted to sell to eat one person. I learned from the teacher who came to teach."

These abilities can be applied to enhance their profession and generate income. It is crucial to emphasize the significance of skills development in promoting economic empowerment and financial stability (Rahman et al., 2023) that specifically target underprivileged populations, including ex-prisoners and rural communities.

The assessment of the 'Wide' dimension, which relates to network formation, showed that several projects are effective in expanding participants' networks and stimulating future collaboration. Among the project that received 4 to 5 rating are Y22-SP065, Y22-SP098 and Y22-SP179. These projects have helped participants expand their social and professional networks. Y22-SP122, Y22-SP123, Y22-SP166, Y22-SP172 have also built relationships and paved the way for future collaboration. The FGD data reveals that for the cooking project, the participants reported to have actively engaged in networking initiatives, establishing connections within the local community and beyond. They extended invitations to other women in the area, as kitchen helpers and offered compensation for their assistance, especially when handling a large number of orders. One of the participants mentioned:

"If the order is large, we cannot do it ourselves. I share on WhatsApp who wants to come, please help us cook chopped onions and pack food. Many want to help because they get money."

One of them also highlighted that this project is an important network platform to further promote her business. She said:

"If I don't join here, I won't be able to get to know many people. I used to not know how to make friends, but now I meet many people, and I am happy. Later, it will be nice to get an order if you know many people."

In Y22-SP122 and Y22-SP123 projects, networking with government agencies such as Selangor Empowered Women's Centre is expected to expand the project's target audience, opening possibilities for outreach to other communities within their network (more than 50 constituencies). One participant is now actively seeking opportunities to bring women out from the community and enhance networking efforts. Engaging with elected representatives for support in bulk purchases demonstrates a strategic networking approach to ensure project sustainability (Hassan et al. 2023). The participants also use their contacts and the project's Facebook page, to create awareness, promote products, and secure orders. This shows the range of activities that foster network development and cooperation-building, providing stakeholders useful insights into the best programs for networking and collaboration.

"Indeed, I have a plan to release this product if the product is okay, I want to encourage hotels to introduce this product - where to put the soap. If possible, we will also expand to cover more constituencies - more than 50 state constituencies. Went to YB to ask for support, Selangor Empowered Women. God willing. Before this, there were also bulk orders. Maybe you can get more after this."

Seven programs received scores of 4 and 5 on the 'High' dimension demonstrating their efficacy in implementing and following guidelines, standard operating procedures (SOPs), and terms of reference (TOR). The commitment to adhering to established guidelines and SOPs is evident in initiatives such as Y22-SP065 and Y22-SP179. These initiatives aim to ensure the smooth and efficient implementation of programs. Initiatives such as Y22-SP122, Y22-SP123, Y22-SP128, Y22-SPSP133 demonstrate a proactive stance in the formulation of novel guidelines and SOPs including a dynamic process with the participants, thereby exemplifying a dedication to ongoing enhancement and ingenuity. The above finding is further supported by the feedback from the FGD session. For the sewing project, each participant is given a manual on sewing. The training initially provided a basic framework, guiding participants through the various stages from observing/knowing the customer, taking a body measure for making clothes, making a polar, sewing and stitching handmade in certain cases. They also tend to work faster and more systematically over time as they get more experience and support from one another. These insights emphasize the evolving nature of the project's system and suggest areas for further refinement to enhance efficiency and consistency in the future (Rahman et al, 2023). One of the participants mentioned:

"We are very happy that Ms Puva and the teacher taught us step by step about sewing from taking a body measurement, buying the correct cloth, lining material, providing plan design and sewing. The guidelines are clear. But if we are not sure we can always ask the teacher and Ms Puva."

For the Y22-SP122 and Y22-SP123 projects the solution provider confirmed that they do have a system in place, but he also recognized the need to include the participants to further fine-tune the system. The training given provided a basic framework, guiding participants through the various stages from weighing to mixing, moulding, and finishing. However, with a personalized demand and innovative creation, the system has to be adaptable. Quoting the Solution Provider:

"We do have a training time manual for all participants. But if we have a new product, a new mold, we need more time to fine-tune the process and that is what these women are doing now."

Another example is the Y22-SP166 project. Participants' performance is systematically evaluated after each class, with results prominently displayed on a board. This transparent evaluation process serves to depict their proficiency in both the technical and speed aspects of hair styling. The use of a visible board encourages healthy competition, fosters a sense of accountability, and motivates participants to consistently improve. Remarkably, participants have consistently achieved stellar ratings, often receiving a full 5-star evaluation in these assessments. This success underscores the effectiveness of the systematic approach employed in the program.

"Teachers have a look and a record - how many, how many minutes, in terms of conversations with customers, he also looks at them. Each session must have a score. Usually, I would get 4-5. But most of the time, it's 5. The teacher also looked at it after we cut it like before people wanted to go to court. That is also one of the evaluations as well. He will put la on the sign."

Hence, for stakeholders and funders aiming to attain significant outcomes in the high dimension, it is imperative to consider the adoption of initiatives akin to these, which promote compliance with guidelines and SOPs while simultaneously cultivating a climate of innovation and flexibility in response to novel practices and procedures (Rahman et al., 2023).

As for the 'SDG' dimension, the average score for this dimension was 2.8, which indicates a moderate impact on the beneficiaries. This score implies that beneficiaries of the project understand the SDG mandate and can prioritize SDGs relevant to their work. Only the following programs received the rating of 4 namely Y22-SP065, Y22-SP128, Y22-SP129, and Y22-SP172. Programs to generate income (Y22-SP166) and business through mobile phone repair skills (Y22-SP081) and none received the score of 5. The above finding is further supported by the feedback from the FGD session. The participants were found to be familiar with the term but lacked a clear understanding of its meaning and the associated SDG linked to the project. Despite the Solution Provider's assertion that this information had been conveyed during the training sessions, the participants did not recall these specifics during the FGD. Additionally, it was observed that the SDG displayed on the mural of the training building was not accurate or aligned with the real SDG categories. Example of the quote recorded was:

"We know the SDGs but don't really remember which goal"

From the document review, it was found that the most popular SDG target is SDG8: Decent Work and Economic Growth which promises the participants to be able to use the skills and knowledge that they obtained via the training from the 17 projects to earn decent work or employment opportunities. The second highest ranking of the most popular SDG targets is SDG1: Reducing Poverty. As most of the participants are from B40 communities and youth, these 15 projects aim to help them improve their economic well-being and to improve their living conditions. The third highest ranking of the most popular SDG target is SDG4: Quality Education. It is believed that 11 of these projects could alleviate their participant's well-being through a proper sharing of knowledge and skills (Hassan et al., 2023).

The assessment on the 'gender' dimension involves the evaluation on equal opportunity is given to both genders. Result reveals an average mean score of 3.1, which is a moderate impact. This mean analysis indicates that gender consideration is apparent in at least 2 stages from a total of 4 stages (Project Proposal (P), Monthly Report (M) Final Report (F), Site Visit (S)). The following programs were the only ones that scored 4 and 5, namely: Y22-SP106, Y22-SP122, Y22-SP123, Y22-SP128, Y22-SP129, Y22-SP172, Y22-SP179, Y22-SP081 and Y22-SP088. Based on the FGD session, gender considerations include providing opportunities for Indian women participation who can feel comfortable during the training session. The women also expressed that this project is a life changer for them as it enables them now to have financial independence and contribute towards their household income. Another project which focuses on only women participants, such project offers women a valuable opportunity beyond their roles in caring for children and grandchildren (Hassan et al, 2023). Drawing parallels to their experiences, such as baking, the upcycling project provides a familiar and empowering avenue for skill development and personal growth. By placing a strong emphasis on women's involvement and empowerment, projects like these demonstrate its commitment to fostering gender equality and socioeconomic advancement within the community (Zainuddin et al, 2017; Shuhidan et al., 2023).

4.3 Policy Recommendations

Key policy area analysis was carried out on 19 projects and indicated that there are at least 8 related policy areas addressed by the solution projects. Table 5 summarizes the solution projects and related policy areas. Further analysis indicates that income generation is the most popular key policy area addressed by the solution projects. There are about 17 solution projects concentrated on income generation which accounted for 89% of the total 19 projects. The second most popular key policy area is related to poverty, with 12 projects aiming to address this area which accounted for 63% of the total of 19 projects. The third most popular key policy area is gender-related policy. About 9 projects provide equal opportunity to both genders in their programs which accounted for 47% of the total of 19 projects. Based on these findings, policymakers, funders, and relevant stakeholders can gain useful insights that can inform the formulation of plans and efforts for community development (Rahman et al., 2023; Syahirah et al., 2023; Salleh et al, 2023; Hassan et al., 2023; Rahman et al., 2023). The emphasis on income generation showcases the significant need for economic empowerment and promoting sustainable livelihoods to tackle poverty, especially urban poverty. Policymakers may use this data to inform the direction of resource allocation as well as policy formulation and implementation.

Table 5 *Summary of solution projects and related policy areas*

No	Project Code	Youth	Gender	Income Generation	Poverty	Social Protection	Local Government	Foods Security	Settlement / Housing
1	Y22-SP004			x	x				
2	Y22-SP007	x		x	x				
3	Y22-SP065		x	x		x			
4	Y22-SP066		x	x		x			
5	Y22-SP081			x					
6	Y22-SP088			x	x	x			
7	Y22-SP098		x	x	x				
8	Y22-SP106		x						
9	Y22-SP122		x	x	x				
10	Y22-SP123		x	x	x				
11	Y22-SP128	x	x	x	x			x	
12	Y22-SP129	x	x	x	x			x	
13	Y22-SP133					x			
14	Y22-SP135			x	x				
15	Y22-SP140	x	x	x	x				
16	Y22-SP166	x		x		x			
17	Y22-SP172	x							
18	Y22-SP179			x	x			x	
19	Y22-SP190	x		x	x				
	Total Project	7	9	17	12	5	-	3	-
	Percentage (%)	36	47	89	63	26	-	15	-

5. Conclusion

In conclusion, this paper has shed light that economic solution is the most popular choice for CBPs held in Selangor. Through a mixed-method approach, the study assessed all 19 solution projects aimed at promoting SDGs. Based on the classification of solutions for 19 projects, it was found that 18 projects focused on providing economic solution through CBPs. The findings also revealed that 2 dimensions namely Deep, and Clear recorded high mean scores than the other 4 dimensions measured in this impact evaluation exercise. Through this impact evaluation, informed decision-making, improved program design, and targeted policy development can be achieved, leading to positive economic impact aligned with the SDGs. This research contributes to the field of project impact evaluation and provides valuable insights for practitioners, policymakers, and organizations striving to create sustainable development and uplift communities in Malaysia and beyond. It is hoped that this paper would be able to provide insights for APPGM-SDG to focus more on economic CBPs to alleviate poverty and creating more job opportunities among the rural communities.

6. Conclusion and Recommendations

This project aimed to assess the effectiveness of the programme in enhancing village governance through targeted training modules. The results demonstrate significant improvements in village management, financial and accounting practices, and file management systems, with high effectiveness ratings for the modules and trainers. The findings directly address the research questions by confirming the programme's positive impact on village governance. This is evident through improved skills in village management, accounting, and file management, as well as favorable public perception regarding changes in village institutions. These outcomes highlight the programme's potential as a model for similar initiatives in other rural contexts.

The implications of these results are substantial, as they emphasize the importance of innovative educational programmes in promoting rural development. Abdul Rashid et al. (2021) highlight the Malaysian government's efforts to transform rural areas into economic hubs, and this study supports that objective by demonstrating how targeted training can improve village governance and management. Similarly, Choudhary et al. (2022) emphasize the importance of digital literacy in bridging the urban-rural divide, which aligns with the digital components of this programme. Criollo-C et al. (2021) and Grant (2019) underline the transformative potential of mobile learning technologies, which this programme effectively harnesses to enhance educational outcomes in rural areas.

This study contributes valuable insights to the field, suggesting that such programmes can effectively bridge the urban-rural development gap and support sustainable development goals. The programme's alignment with national policies on rural development and digital literacy underscores its relevance and potential for wider implementation. Moreover, the programme's approach to TVET is particularly relevant, as it provides practical, hands-on skills training that is essential for improving employability and economic opportunities in rural areas. The relevance of TVET in this context is also supported by the findings of Lutayaa et al. (2023), who highlight the need for improved TVET programmes to address skills shortages in rural communities.

This study provides a solid foundation for future research and policy development, highlighting the critical role of targeted educational interventions in enhancing rural governance and development. By addressing the identified limitations and building on the current findings, future research can further refine and expand the impact of the Mobile Learning: Hands-on Village Management and Governance programme, making it a robust model for effective TVET in rural settings.

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Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this research. No financial, personal, or professional affiliations have influenced the conduct or conclusions of this study. All sources of funding have been disclosed, and the research was conducted with complete academic independence.

Author Contribution

*The authors confirm contribution to the paper as follows: **study conception and design:** Fadilah Puteh; **data collection:** Affezah Ali, Tuan Nooriani Tuan Ismail; **analysis and interpretation of results:** Wan Puspa Melati; **draft manuscript preparation:** Fadilah Puteh. Wan Puspa Melati, Affezah Ali, Tuan Nooriani Tuan Ismail. All authors reviewed the results and approved the final version of the manuscript.*

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