

# The impact of introducing agile management in rural youth entrepreneurship teams

## 農村青年創業團隊導入敏捷管理之成果與影響

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**Abstract:** This study examined the transformative impact of agile management on rural youth entrepreneurial teams and agile coaches, highlighting its potential to improve organizational efficiency and amplify social impact. Grounded in the Eight Principles of Social Impact Assessment and the Theory of Change, this study adopted a mixed-methods approach, incorporating qualitative interviews and quantitative surveys to evaluate changes in scale, depth, and significance. This study examined participants of the 2023 Hours for Impact: Agile Empowerment Program, which was supported by the Soil and Water Conservation Agency and jointly implemented by PMI Taiwan and National Taichung University of Education. The study engaged 13 rural youth entrepreneurial teams, 15 agile coaches, and institutional stakeholders. Findings revealed notable improvements among youth teams, including enhanced confidence, greater work efficiency and quality, stronger networks, and a heightened commitment to societal impact. Agile coaches reported increased professional confidence, broader networks, and a deeper sense of fulfillment, while institutional stakeholders benefited from increased visibility, enhanced recognition, and valuable capacity-building opportunities. These results confirmed the effectiveness of agile management in rural entrepreneurial program, underscoring the essential role of

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tailored mentorship and volunteer agile coaches. This study provides actionable insights for scaling agile methodologies to drive innovation and ensure sustainable outcomes in diverse, resource-constrained environments.

**Keywords:** Agile management, rural youth entrepreneurship, social impact assessment, theory of change (ToC), stakeholder engagement.

**摘要：**本研究探討敏捷管理對農村青年創業團隊與敏捷教練所帶來的影響，突顯其提升組織效能與擴大社會影響力的潛力。本研究以社會影響評估八大原則與改變理論為基礎，透過質性訪談與量化問卷，評估變化的程度、數量與相對重要性。研究對象為 2023 年「Hours for Impact: 敏捷賦能計畫」之參與者，該計畫由農業部農村發展及水土保持署指導，並由國立台中教育大學與國際專案管理學會台灣分會共同執行。研究共涵蓋 13 組農村青年創業團隊、15 位敏捷教練等利害關係人。結果顯示，導入敏捷管理後，青創團隊在自信心、工作效率和專案品質上均有顯著提升，並且強化團隊協作能力與社會貢獻的動力。同時，敏捷教練也在指導過程中累積經驗，提升自我效能感與成就感，並擴展人際關係網絡。此外，水保署、國際專案管理學會台灣分會及國立臺中教育大學管理學院透過策略性導入和推廣活動，分別在提升知名度、穩健性及外界認同感等方面獲得成果。本研究證明，敏捷管理的導入不僅優化團隊的內部運作流程，還對參與者產生多方面的正向社會影響。

**關鍵詞：**敏捷管理、農村青年創業、社會影響評估、改變理論 (ToC)、利害關係人參與

## 1. Introduction

With the accelerating pace of globalization and technological advancement, rural youth entrepreneurship has become a pivotal force in driving local economic development and fostering social innovation. However, in today's volatile, uncertain, complex, and ambiguous (VUCA) world, traditional rural

entrepreneurship models often grapple with significant obstacles, including constrained resources, rigid organizational structures, and limited adaptability to rapidly changing markets. While youth entrepreneurial teams had substantial potential to catalyze business growth and address pressing social challenges, they frequently operated under conditions of resource scarcity and environmental unpredictability (Gundry *et al.*, 2011; Scoones, 2016). The distinct and diverse nature of rural contexts further complicates the replication of successful models, compelling these teams to chart innovative, context-specific paths in an ever-shifting landscape.

Rural entrepreneurship entails complexities beyond the basic pursuit of market demand. It requires deep engagement with local communities, the creation of culturally and economically relevant products and services, and the establishment of environmentally sustainable business practices (Steiner and Atterton, 2015). These multifaceted demands significantly elevate the complexity of business management, particularly for nascent teams lacking experience, support systems, and resilience. Although governments and intermediary organizations provide professional guidance, such support often falls short in addressing the nuanced, day-to-day operational challenges encountered by these teams (Chen and Shen, 2023). This gap can erode their confidence and entrepreneurial motivation, especially when faced with setbacks or prolonged uncertainty.

Despite the growing emphasis on rural revitalization and youth entrepreneurship, there remains a significant research gap regarding effective management methodologies that can empower these teams to overcome challenges and achieve sustainable success. Previous studies have predominantly focused on financial support, technical training, and market access (Raei and Rasmussen, 2021; Simsek, 2015). However, few have explored the potential of adaptive management frameworks, such as agile management, to address the operational complexities faced by rural youth teams. This gap highlights an urgent need to investigate whether Agile Management, initially designed for software development but now widely adopted across industries, can enhance the resilience

and performance of rural entrepreneurial program.

Agile management is characterized by flexibility, iterative processes, continuous improvement, and adaptability. By enabling teams to rapidly adjust strategies, optimize workflows, and respond effectively to changing circumstances, it fosters a dynamic and responsive organizational culture. Moreover, its emphasis on customer-centricity and iterative feedback loops enhances collaboration and strengthens alignment with market demands (Beck *et al.*, 2013; Rigby *et al.*, 2016). While agile methodologies have been successfully applied in corporate settings, their application in rural entrepreneurship remains underexplored, representing a critical gap in both academic literature and practical implementation.

Recognizing the unique challenges faced by rural youth entrepreneurship teams, PMI Taiwan and the Social Impact and Thinking Hub of the College of Management at National Taichung University of Education initiated the "2023 Hours for Impact: Agile Empowerment Program." This program enlisted volunteer agile coaches to provide structured training, personalized mentorship, and access to digital Kanban tools, facilitating the seamless integration of Agile Management into youth entrepreneurial projects. The program aimed to bridge theory and practice, enabling teams to internalize agile methodologies, master tools, and drive cultural transformation for sustained agility.

This study addresses the identified research gap by employing a rigorous social impact assessment framework based on the Eight Principles of Social Impact Assessment and the Theory of Change. It investigates the transformative changes experienced by rural youth entrepreneurial teams following the adoption of Agile Management, alongside the professional and personal growth experienced by agile coaches throughout the mentoring process. By synthesizing these findings, the study aims to generate actionable insights that can inform the design of similar programs, enhance the scalability of agile methodologies in rural contexts, and guide organizational decision-making processes to maximize the social and economic impact of youth entrepreneurship program.

## **2. Literature review**

## 2.1 Challenges in managing rural youth entrepreneurial teams

Rural youth entrepreneurial teams play a crucial role in fostering local resilience and economic vitality. However, they face significant challenges, including resource limitations, fragmented support systems, and the complexity of managing business operations within resource-constrained settings (Mickiewicz *et al.*, 2022). Traditional rural entrepreneurship models often lack the flexibility needed to adapt to rapidly changing environments, further complicating the sustainability of youth-led ventures (Baldock *et al.*, 2001; Scoones, 2013).

Effective management practices are essential for these teams to navigate operational complexities. Research showed that entrepreneurial orientation—characterized by innovativeness, proactiveness, and risk-taking—could significantly enhance organizational resilience and performance (Lumpkin and Dess, 1996; Rauch *et al.*, 2009). Entrepreneurial orientation enables teams to identify emerging opportunities, develop innovative solutions, and make adaptive decisions under uncertainty (Covin and Slevin, 1989; Wales, 2016).

Furthermore, entrepreneurial orientation enhances market responsiveness and innovation capabilities, crucial for rural entrepreneurs facing fluctuating demand and evolving community needs (Anderson and Eshima, 2013; Wiklund and Shepherd, 2003). It also fosters resilience through continuous experimentation, learning from failure, and adaptive decision-making (Covin and Wales, 2019; Kraus *et al.*, 2012). These findings underscore the importance of embedding entrepreneurial orientation within rural youth entrepreneurial teams to enable them to navigate challenges and achieve sustainable growth.

Building relationships with local political and community organizations is another significant hurdle for rural youth teams. Returning or relocating young entrepreneurs must earn the trust and support of local stakeholders. However, the diverse priorities of these stakeholders often complicate the identification of mutually beneficial business opportunities. While government policies encourage youth entrepreneurship in rural areas, many teams lack robust management models and professional expertise, leaving them ill-equipped to navigate complex operational environments (Mickiewicz *et al.*, 2022).

Furthermore, decision-making responsibilities are frequently concentrated in a few individuals, such as the founder, which can stifle collaboration and resilience. This centralization is particularly problematic in fast-changing environments, where distributed leadership and collective decision-making are essential for adaptability and sustainability (Snowden and Boone, 2007). Teams that lack supportive networks or mentoring are at greater risk of abandoning their ventures when faced with challenges.

## **2.2 Agile management as a solution**

Agile management emerged as a transformative approach for enhancing organizational adaptability and resilience. Initially developed for software development, agile principles—including iterative processes, continuous improvement, and responsiveness to change—have been widely adopted across industries to address complex challenges (Beck *et al.*, 2013; Rigby *et al.*, 2016).

Unlike traditional linear management frameworks, agile methodologies emphasize short iterative cycles, regular feedback loops, and collaborative decision-making. These practices empower entrepreneurial teams to rapidly adjust their strategies, optimize workflows, and align with evolving market demands (Cooper, 2016; Highsmith, 2002). For rural youth entrepreneurial teams, agile management offers a structured yet flexible framework to navigate uncertainties while enhancing operational efficiency and impact.

Recent studies have demonstrated the effectiveness of Agile Management in the technology sector, where efficiency improvements are often gauged through metrics such as accelerated product delivery and enhanced financial performance (Ajiga, 2024; Scrum.org, 2023). However, rural youth entrepreneurial teams operate in more complex environments, where success extends beyond product outcomes and revenue generation to include stakeholder engagement, social participation, network building, and internal organizational management. This study applies agile methodologies to these teams, aiming to enhance resilience, foster community partnerships, and improve overall operational effectiveness. To account for the broader dimensions of success in rural entrepreneurship, this study

employs impact assessment methodologies to evaluate stakeholder-driven changes, ensuring a more comprehensive measurement of efficiency and organizational benefits beyond traditional financial and product-based metrics.

### **2.3 Change theory and organizational change models**

Change Theory (ToC) and organizational change models provide valuable frameworks for understanding how agile coaching and management practices facilitate anticipated transformations. ToC emphasizes the importance of identifying desired outcomes, mapping backward to determine necessary preconditions, and establishing causal pathways to achieve change (Clark and Anderson, 2004; Weiss, 1995). This approach ensures that each intervention aligns with long-term goals and leads to measurable outcomes.

Beyond guiding intervention design, ToC serves as the cornerstone of social impact assessment by providing a structured framework to evaluate whether planned activities translate into desired outcomes. Through its causal pathways, ToC enables stakeholders to identify key indicators for tracking progress and measuring impact (Vogel, 2012). This approach not only strengthens accountability but also facilitates adaptive management, ensuring continuous alignment with overarching goals.

Organizational change models, such as Kotter's 8-Step Change Model (Kotter, 1996) and Lewin's Change Management Model (Lewin, 1947), further illuminate the change process by delineating key stages: creating a sense of urgency, building a guiding coalition, and institutionalizing new practices. These models underscore the importance of stakeholder engagement, transparent communication, and continuous adaptation to facilitate effective change implementation (Armenakis and Harris, 2009).

In the context of rural youth entrepreneurial teams, agile coaching serves as a pivotal intervention, promoting change by mitigating resistance, enhancing adaptive capacity, and fostering cultural transformation. Agile coaching interventions align with ToC and organizational change principles through the following mechanisms:

1. **Reducing Change Resistance:** Agile coaching offers personalized guidance to address individual concerns, thereby alleviating anxieties associated with change. This process corresponds to Lewin's "unfreeze" stage, wherein established mindsets and practices are challenged to cultivate openness toward new approaches (Lewin, 1947).

2. **Establishing a Change Vision:** Agile coaches support teams in articulating a shared vision for change, clarifying goals and milestones. This approach aligns with Kotter's emphasis on developing a compelling vision to inspire collective action (Kotter, 1996).

3. **Building Adaptive Capacity:** Through agile training and iterative practices, team members develop the skills and mindset required to navigate uncertainty, thereby enhancing resilience and promoting continuous improvement (Highsmith, 2002; Rigby *et al.*, 2016).

4. **Providing Real-Time Feedback:** Agile frameworks, such as Scrum and Kanban, integrate regular feedback loops that enable ongoing adjustments. This practice supports ToC principles by ensuring that interventions remain aligned with intended outcomes (Beck *et al.*, 2013).

5. **Promoting Cultural Transformation:** Agile coaching reinforces core agile values—including collaboration, transparency, and adaptability—embedding these principles within organizational culture to sustain change beyond the initial intervention (Denning, 2018).

By integrating ToC and organizational change models with agile coaching practices, rural youth entrepreneurial teams can achieve transformative outcomes, thereby enhancing both operational efficiency and social impact. Furthermore, using ToC as the foundation for impact assessment ensures that evaluation efforts remain outcome-oriented and evidence-based, promoting continuous learning and improvement.

### **3. Methods**

#### **3.1 Research subjects**

This study investigated 13 rural youth entrepreneurial teams, agile coaching volunteers, and project organizers who participated in the 2023 Hours for Impact: Agile Empowerment Program. The program was organized by the Project Management Institute Taiwan Chapter (PMI Taiwan), the Soil and Water Conservation Bureau, and National Taichung University of Education. These entrepreneurial teams represented a diverse array of industries, including agriculture, social enterprises, local revitalization, educational training, and community development. Their inclusion as research subjects was predicated upon their demonstrated growth potential and capacity to adopt agile management practices, as evidenced by their project performance and stakeholder engagement. This selection approach aligns with Shane and Venkataraman's (2000) conceptualization of entrepreneurship as the process of identifying, evaluating, and exploiting opportunities to create value through innovative practices.

### **3.1.1 Entrepreneurial team types and characteristics**

This study examines 13 entrepreneurial teams, categorizing them based on team structure, operational approaches, and resource acquisition. Additionally, it assesses the extent of leadership participation in agile implementation initiatives within these teams. Table 1 summarizes their key characteristics and contributions.

### **3.1.2 Entrepreneurial success and resource mobilization**

The entrepreneurial success observed among these teams can be attributed to three primary factors:

1. **Market-Oriented Approach:** Successful teams exhibited the ability to continuously adapt their products or services in response to market demands. This aligns with the concept of "effectuation," wherein entrepreneurs leverage existing resources to achieve evolving goals rather than adhering strictly to predefined plans (Sarasvathy, 2001).
2. **Resource Integration:** The entrepreneurial teams effectively mobilized government subsidies, corporate partnerships, and community resources to establish sustainable business models. This capacity underscores the importance of resource orchestration in rural entrepreneurship, as emphasized by Korsgaard

**Table 1**  
**Types and characteristics of teams**

<b>Team</b>	<b>Scale of Operation (Number of Participants)</b>	<b>Leader Involvement</b>	<b>Business Scope</b>
Team1	6	Fully Engaged	Agricultural production, processing, promotion
Team2	6	Fully Engaged	Community building, sustainable development
Team3	4	Minimally Engaged	Education promotion, gender equality, urban development
Team4	5	Fully Engaged	Cultural and creative development, local industry promotion
Team5	2	Partially Engaged	Industrial development, technological innovation
Team6	5	Fully Engaged	Agriculture, health, education, environmental protection
Team7	2	Minimally Engaged	Agriculture, education, sustainable development
Team8	5	Fully Engaged	Agricultural development, cultural heritage preservation
Team9	2	Fully Engaged	Industrial development, experiential economy
Team10	1	Minimally Engaged	Handicrafts, industrial development
Team11	5	Fully Engaged	Social development, education, environmental protection
Team12	5	Fully Engaged	Culinary development, social development, education promotion
Team13	3	Minimally Engaged	Educational development, urban planning

*et al.* (2015).

3. Internal Collaboration: Agile management practices facilitated enhanced internal communication, increased work transparency, and expedited decision-making processes. This dynamic aligns with Highsmith's (2002) assertion that agile frameworks empower entrepreneurial teams to navigate uncertainty and foster innovation.

Moreover, agile coaching interventions played a pivotal role in mitigating resistance to change, establishing shared goals, and promoting continuous improvement (Rigby *et al.*, 2016). Collectively, these factors contributed to the entrepreneurial resilience and sustainability demonstrated by the participating teams.

### **3.1.3 Implementation of agile management practices**

The implementation of agile methodologies within the program followed an iterative process aimed at enhancing the operational efficiency and adaptability of rural youth entrepreneurial teams. This approach promoted incremental progress, strengthened collaboration, and ensured continuous improvement throughout project execution.

The process began with an initial assessment of each team's project scope, challenges, and desired outcomes. Teams engaged in sprint-based work cycles, typically lasting two to four weeks. Each sprint started with a planning session where teams defined clear, measurable goals and prioritized tasks using digital Kanban boards, such as Trello. These boards provided real-time task visibility, enabling teams to identify bottlenecks, manage workloads, and adjust strategies as needed (Rigby *et al.*, 2016).

Daily meetings facilitated team alignment, progress tracking, and obstacle resolution. Agile coaches provided personalized guidance to ensure teams stayed focused on sprint objectives while maintaining flexibility to adapt as project needs evolved. This iterative cycle fostered continuous improvement through regular reflection and adaptive decision-making (Schwaber and Sutherland, 2017).

At the end of each sprint, teams participated in sprint reviews and

retrospectives. Sprint reviews showcased completed deliverables and gathered stakeholder feedback, while retrospectives enabled teams to evaluate workflows, celebrate achievements, and identify areas for refinement. These practices not only enhanced project outcomes but also cultivated collaborative learning and innovation (Denning, 2018).

### **3.2 Social impact assessment and the eight principles**

To evaluate the outcomes of agile management implementation, this study employs the Eight Principles of Social Impact Assessment, developed by Social Value International (SVI, 2022). These principles emphasize stakeholder involvement, transparency, and continuous improvement, ensuring that entrepreneurial program create meaningful and sustainable value for both participants and their communities.

The principles (Figure 1) guide the systematic measurement and management of social value, enabling organizations to identify positive and negative outcomes, assess their significance, and optimize resource allocation (Nicholls *et al.*, 2012). By applying this framework, the study provides actionable insights into the effectiveness of agile methodologies in enhancing the resilience, efficiency, and social impact of rural youth entrepreneurial teams.

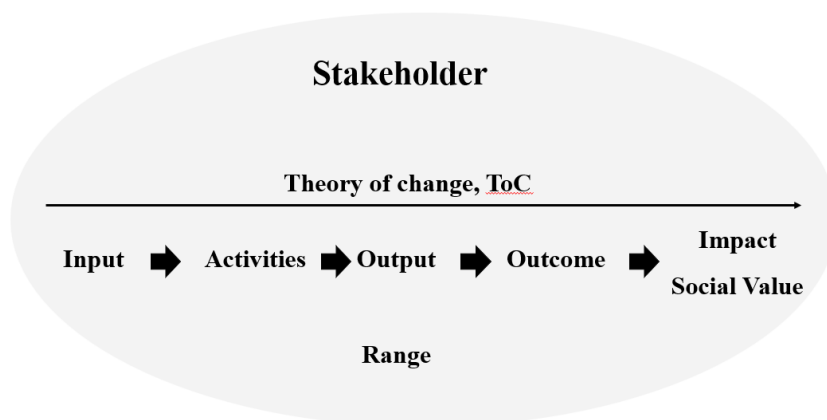
### **3.3 Research framework and implementation**

This study applied the Eight Principles of Impact Assessment and the Theory of Change as foundational frameworks to evaluate stakeholder experiences and outcomes. These frameworks facilitated the analysis of logical relationships among inputs, activities, outputs, outcomes, and impacts (Latané, 1981; Taplin and Clark, 2012) (Figure 2). A mixed-methods approach, integrating qualitative and quantitative methodologies, was employed to assess changes in stakeholder perspectives across dimensions such as scale, depth, contributions, and feedback.

The analysis focused on the "2023 Hours for Impact: Agile Empowerment Program", which was jointly supported by the PMI Taiwan, the Agency of Rural Development and Soil and Water Conservation, and partnering academic



**Figure 1**  
**Eight principles of social value (SVI, 2022)**



**Figure 2**  
**Using change theory to map impact**

institutions. Program activities included recruiting 13 entrepreneurial teams and 15 agile coaches, organizing workshops, conducting over 900 sprint-based coaching sessions, and hosting a culminating presentation event to showcase the teams' progress and outcomes.

### 3.4 Qualitative interview

#### 3.4.1 Stakeholder engagement process

Qualitative interviews were conducted to collect feedback from stakeholders

regarding their experiences during the implementation of agile management practices. These interviews, conducted between December 1 and 30, 2023, aimed to capture the changes experienced by stakeholders, as well as their specific challenges and perceptions. Open-ended questions were used, allowing participants to freely express their views on agile management and share insights about their team's operations. Stakeholders were identified using four guiding questions:

1. Who provided financial support for the program?
2. Who experienced direct impacts?
3. Who was indirectly influenced by the program?
4. Who contributed to the execution of the program?

The primary objective of the interviews was to understand the changes experienced by various stakeholder groups involved in the program. Stakeholders were classified into four key groups: (Table 2)

1. Funders: The Agency of Rural Development and Soil and Water Conservation.
2. Implementers: PMI Taiwan and the College of Management at National Taichung University of Education.
3. Participants: The rural youth entrepreneurial teams adopting agile management practices.
4. Coaches: Agile coaches mentoring the entrepreneurial teams.

This stakeholder classification provided a comprehensive basis for evaluating the program's multi-faceted outcomes.

### **3.4.2 Interview protocol and data collection**

Qualitative interviews were conducted with four stakeholder groups between December 1 and 30, 2023. Participants included representatives from three organizations, entrepreneurial teams (9 representatives) and agile coaches (15 representatives). (The interview outline is detailed in Appendix A)

The feedback collected during the interviews was analyzed using coding and thematic analysis. This approach allowed researchers to identify common patterns

**Table 2**  
**Stakeholder inventory list**

stakeholder groups	population parameter	Qualitative deliberation	Number of people	Reasons for including or not including interested parties	included or not
Agency of Rural Development and Soil and Water Conservation	1	Interview	1	The sponsor of the project provides the main funds for implementation and includes stakeholders.	Y
PMI Taiwan	1	Interview	1	The sponsors who plan and implement this project include stakeholders.	Y
National Taichung University College of Management	1	Interview	1	Cooperate to handle this project, provide space or human resources and other resources, and include stakeholders.	Y
Youth entrepreneurial teams	13	Interview	9	Those who are mainly affected by project activities are key stakeholders.	Y
Agile Coaches	15	Interview	15	Those who are mainly affected by project activities also affect the execution of project activities and are key stakeholders.	Y

and critical insights. The analysis focused on:

1. Summarizing changes experienced by each stakeholder group.
2. Exploring the causal relationships behind these changes.

### 3.5 Quantitative survey

Building upon the qualitative interviews, quantitative surveys were conducted to measure stakeholder changes across the following dimensions:

- Scale The extent to which outcomes were observed across respondents.
- Depth: The degree of individual changes experienced by stakeholders.
- Duration: The length of time these changes are sustained.
- Relative Importance: Stakeholder-perceived significance of each

outcome.

- **Deadweight Factor:** The proportion of outcomes likely to have occurred without intervention.
- **Attribution Factor:** The proportion of outcomes attributable to contributions from other organizations.

Stakeholders were asked to evaluate changes for each outcome identified in the qualitative interviews, comparing their experiences before and after participating in the 2023 Agile Implementation Program. Respondents provided subjective feedback on a 1–10 scale to reflect the perceived degree of change for each outcome.

The depth of change was calculated based on the difference between pre- and post-program ratings, with a threshold of 1 point used to determine whether a meaningful change had occurred. For scale, the number of respondents reporting changes exceeding the threshold was used to estimate the overall prevalence of changes across the stakeholder population.

The duration of changes was assessed through subjective feedback from stakeholders, who were asked to estimate the number of years they believed the observed changes would persist.

To evaluate the relative importance of outcomes, stakeholders rated the significance of each observed change on a 1–10 scale. These scores reflect individual perceptions of importance and were not compared across different stakeholder groups.

The deadweight factor was assessed by asking stakeholders to estimate the percentage of each outcome that would have occurred naturally without their involvement in the program, providing insight into the baseline impact that existed independently of the intervention. Similarly, the attribution factor was measured by prompting stakeholders to indicate the proportion of each outcome attributable to contributions from other organizations, enabling an evaluation of shared responsibility and collaborative impact. These factors were instrumental in isolating the unique effects of the program while acknowledging external influences.

## 4. Result

### 4.1 Changes caused by the project (Outcome)

Outcomes refer to the tangible and intangible changes experienced by stakeholders as a result of participating in the Agile Empowerment Program. These include enhanced knowledge, increased confidence, and strengthened professional networks. Grounded in the Theory of Change, this study identifies and analyzes the chain of events leading to these outcomes for four key stakeholder groups: the Agency of Rural Development and Soil and Water Conservation, PMI Taiwan, National Taichung University of Education's College of Management, youth entrepreneurial teams, and agile coaches. Data collected through structured interviews and surveys provide insights into transformative experiences and the mechanisms driving these changes.

#### 1. Agency of Rural Development and Soil and Water Conservation

- Strengthened Recognition Among Youth Teams

The agency's financial support and consistent communication had addressed the needs of rural youth, fostering trust and appreciation. These efforts solidified its role as a vital contributor to rural development, strengthening its partnerships with youth teams.

#### 2. PMI Taiwan

##### (1) Elevated Public Recognition

The chapter successfully showcased its expertise in agile management through workshops, professional training, and collaborative events. These activities reinforced its public image as a trusted resource, increasing member engagement and public trust

##### (2) Improved Organizational Capacity

The influx of volunteers and increased participation bolstered internal cohesion and morale. This growth not only stabilized the chapter but also equipped it with the resources necessary to expand its future program.

#### 3. College of Management, National Taichung University of Education

- Increased External Recognition

Participation in the program significantly enhanced the college's visibility and reputation in public spheres. Through strategic collaborations with key stakeholders, hosting impactful events, and gaining extensive linkages, the college established itself as a pioneer in youth agile management practices. These efforts also highlighted the practical contributions of the college to youth entrepreneurship, reinforcing its standing as a pivotal academic and social institution driving innovation and management excellence.

#### 4. Youth entrepreneurial teams

##### (1) Boosting Confidence

Workshops and one-on-one coaching improved the teams' understanding and application of agile methodologies. Online tools enhanced their digital capabilities, enabling efficient collaboration and clearer project execution. These experiences instilled greater confidence to address future challenges.

##### (2) Improving Work Efficiency and Quality

Agile Practices, including structured sprints and task evaluations, improved project transparency and goal alignment. These methods minimized inefficiencies, reduced errors, and created a more collaborative environment, resulting in improved work quality and team productivity.

##### (3) Strengthened Networks and Relationships

Through activities like coaching and workshops, the teams deepened connections with mentors and peers, fostering camaraderie and collaboration. This strengthened their shared vision and improved overall team dynamics.

##### (4) Commitment to Societal Impact

Inspired by the program, the teams committed to advancing agile management and supporting community development. By sharing their experiences, they aim to establish models for sustainable innovation and contribute to broader social revitalization efforts.

#### 5. Agile Coaches

##### (1) Developed Professional Confidence

Through participation in workshops and hands-on guidance of teams, agile coaches deepened their understanding of agile methodologies and project

management tools. By overcoming team challenges and refining facilitation skills, they gained confidence in their ability to apply Agile Management, even in contexts distinct from their prior experiences.

(2) Expanded Professional Networks

Agile coaches expanded their networks through close collaboration with teams, interactions with other coaches, and engagement in program events. These experiences strengthened bonds with entrepreneurial teams and introduced coaches to new professional opportunities.

(3) Heightened Sense of Purpose

The positive impact of their guidance reinforced a strong sense of purpose and motivation, inspiring coaches to continue supporting teams, even on a voluntary basis.

(4) Increased Fulfillment

Positive feedback from stakeholders and the observed growth of teams enhanced coaches' professional fulfillment. Despite occasional setbacks, their contributions to team success provided a profound sense of achievement.

## 4.2 Stakeholder changes in scale and degree

### 1. Agency of Rural Development and Soil and Water Conservation

Quantitative findings indicated a key outcome for the Agency of Rural Development and Soil and Water Conservation: "Strengthened Recognition Among Youth Teams", 73.3% of respondents (agile coaches) agreed that the program enhanced their recognition of the Agency of Rural Development and Soil and Water Conservation. In addition, 66.7% of youth team respondents also reported increased recognition of the agency due to the program. These findings demonstrate the agency's significant contribution to supporting youth teams and enhancing its visibility and trust among program participants, aligning with its goal of fostering partnerships with rural youth.

### 2. PMI Taiwan

The outcomes for PMI Taiwan Chapter, as identified through quantitative analysis, include:

(1) **Elevated Public Recognition:** PMI Taiwan received the highest recognition among stakeholders, with 93.3% of respondents (agile coaches) acknowledging its contributions to the program. Similarly, PMI Taiwan was unanimously recognized (100%) by youth teams. This highlights PMI Taiwan's successful efforts in promoting agile methodologies, enhancing its reputation as a professional resource for project management, and engaging with youth entrepreneurship program.

(2) **Improved Organizational Capacity:** Quantitative data revealed that the program's success attracted more volunteers and members, fostering greater internal cohesion. Membership growth from 424 in 2023 to 549 in 2024, as well as volunteers' growth from 343 in 2023 to 363 in 2024 reflects this outcome.

### 3. College of Management, National Taichung University of Education

The quantitative analysis confirmed the outcomes for the College of Management: "Increased External Recognition." The college was recognized by 86.7% of agile coach respondents, highlighting its significant impact on academic and public outreach through program participation. However, only 44.4% of team respondents acknowledged the college's increased recognition.

### 4. Youth entrepreneurial teams

Quantitative findings confirmed four key outcomes for the 13 participating youth entrepreneurial teams (Table 3):

(1) **Boosting Confidence:** All 9 interviewed team representatives reported increases in confidence, with an average degree of change of 2.3 points. This reflects the impact of agile training and mentoring.

(2) **Improving Work Efficiency and Quality:** Changes in workflow and task management resulted in an average improvement rating of 2.7 points. All teams reported enhancements exceeding the threshold of 1 point.

(3) **Strengthened Networks and Relationships:** Activities like consensus camps and workshops fostered stronger interpersonal connections. Respondents rated this outcome at an average of 1.3 points, with all teams reporting improvements.

(4) **Commitment to Societal Impact:** Eight out of nine interviewed teams

**Table 3**  
**Changes in the youth entrepreneurship team**

Stakeholder	Boosting Confidence			Improving Work Efficiency and Quality			Strengthened Networks and Relationships			Commitment to Societal Impact		
			degree of			degree of			degree of			degree of
	Before	After	change	Before	After	change	Before	After	change	Before	After	change
Team A	5	8	3	6	8	2	7	8	1	5	7	2
Team B	4	6	2	4	6	2	6	7	1	6	7	1
Team C	7	9	2	6	8	2	6	7	1	5	6	1
Team D	7	9	2	7	9	2	7	8	1	8	9	1
Team E	3	7	4	4	8	4	5	6	1	7	9	2
Team F	7	9	2	7	9	2	3	5	2	4	4	-
Team G	9	10	1	6	10	4	7	10	3	8	10	2
Team H	7	9	2	6	9	3	7	8	1	4	6	2
Team I	6	9	3	4	7	3	9	10	1	6	8	2
<b>average value</b>			<b>2.3</b>			<b>2.7</b>			<b>1.3</b>			<b>1.6</b>

demonstrated a greater commitment to contributing to societal well-being. This outcome received an average degree of change rating of 1.6 points, with one team showing no notable improvement.

To comprehensively evaluate the success of agile management implementation, we conducted interviews with representatives and coaches from the Youth Entrepreneurship Teams. These interviews aimed to capture both subjective and objective perceptions of the implementation process and outcomes.

Based on feedback from team representatives, 55.6% of the teams rated the agile implementation as highly successful. These teams demonstrated a solid understanding of agile principles, effectively integrated them into team operations, and showed the capability to operate independently. Another 33.3% considered the implementation moderately successful, noting that they required continued coaching support to sustain progress. However, 11.1% of the teams indicated a

basic understanding of agile principles, with their application limited to initial project planning stages. These teams required significant coaching to improve communication and collaboration (Figure 3).

From the perspective of agile coaches, 40% assessed the implementation as highly successful, observing that the teams effectively applied Agile Management and exhibited potential for independent operation. An additional 20% of coaches rated the implementation as moderately successful, acknowledging progress in applying Agile Management but identifying a need for external support to maintain operations. However, 6.7% of coaches noted limited success, citing teams' basic grasp of agile concepts and their reliance on step-by-step guidance. Notably, 26.7% of coaches considered the outcomes unsuccessful, attributing the lack of success to unclear understanding of agile principles and an inability to establish operational consensus (Figure 4).

The combined perspectives of team representatives and coaches indicate alignment in evaluating whether teams can operate independently following agile implementation. Both groups identified four underperforming teams, potentially due to unmet expectations. This may also explain the reluctance of these teams to participate in subsequent interviews for this study.

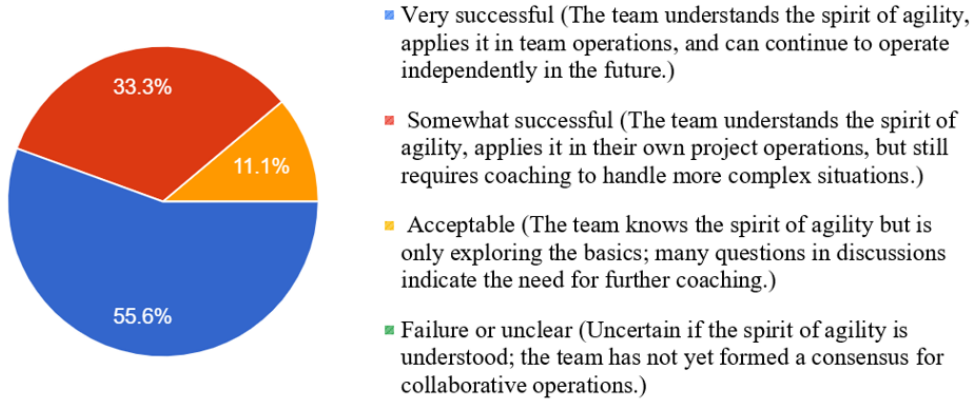
### 5. Agile Coaches

The outcomes for agile coaches, as revealed through quantitative analysis, include (Table 4):

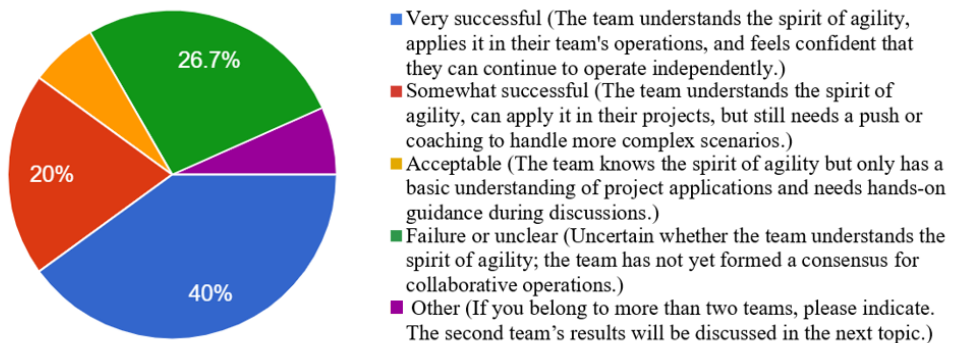
(1) **Developed Professional Confidence:** By guiding the team to cope with challenges, they can accumulate their own practical experience and become more confident in the future project management field. 66.7% of the coaches said that their confidence has improved, with the average degree of change being 1.8 points.

(2) **Expanded Professional Networks:** Collaboration with entrepreneurial teams and peers strengthens professional connections. All coaches have made or expanded their network with at least one person, with an average of 6.8 people.

(3) **Heightened Sense of Purpose:** Because the coaching team has a greater sense of responsibility and mission, 60% of coaches said that their sense of mission has improved, with an average change of 2.0 points.



**Figure 3**  
**Youth Entrepreneurship Team’s self-evaluation of the situation after the introduction of agile**



**Figure 4**  
**Agile coaches gives feedback on the team’s situation after the introduction of agile**

(4) Increased Fulfillment: Positive feedback from the team during the final presentation helps enhance the coach’s sense of accomplishment. 53.3% of

coaches reported an increased sense of accomplishment, however, some coaches reported feeling frustrated by not meeting their team's expectations. Overall, the average score for this result is 2.1 points.

Notably, four coaches (C, F, I, and J) reported minimal changes across all categories, with the sole exception of *Expanded Professional Networks*. Follow-up interviews revealed that two of these coaches were associated with teams that failed to adopt Agile Management. This underscores the critical role of team progress in fostering coaches' *Professional Confidence*, *Sense of Purpose*, and *Fulfillment*. When teams struggle to implement Agile Management effectively, it becomes significantly more challenging for coaches to achieve meaningful outcomes.

Despite these challenges, two of the coaches indicated that their participation in the activities remained valuable. They highlighted the acquisition of substantial case-based experience and recognized personal professional growth, reflecting intermediate outcomes related to increased self-confidence. These insights suggest the importance of supporting coaches in translating their professional development into enhanced confidence in their agile coaching capabilities, ultimately improving their effectiveness in future coaching engagements.

Further analysis of the study revealed significant differences in the degree of change across the four measured outcomes—*Developed Professional Confidence*, *Expanded Professional Networks*, *Heightened Sense of Purpose*, and *Increased Fulfillment*—based on the prior coaching experience of agile coaches. To better understand these differences, the coaches were categorized into two groups: "first-time agile coaches" and "experienced agile coaches." The data indicated that the average degree of change across these outcomes was lower for experienced coaches compared to their first-time counterparts. Furthermore, the frequency and magnitude of changes varied notably between the two groups, as detailed in Table 5.

Interviews provided further context to these quantitative findings. Experienced coaches, having accumulated significant prior coaching experience, entered the program with higher baseline scores in *Professional Confidence*, *Sense*

**Table 4**  
**Agile coach's degree of change**

Stakeholder	Developed Professional Confidence			Expanded Professional Networks Increase the number of people you know	Heightened Sense of Purpose			Increased Fulfillment		
	Before	After	degree of change		Before	After	degree of change	Before	After	degree of change
Coach A	8	9	1	3	8	8	-	8	8	-
Coach B	3	6	3	4	4	6	2	4	8	4
Coach C	8	8	-	2	6	6	-	9	9	-
Coach D	5	6	1	4	7	8	1	7	8	1
Coach E	6	6	-	10	5	6	1	4	4	-
Coach F	7	7	-	12	4	4	-	7	7	-
Coach G	5	6	1	9	7	7	-	6	6	-
Coach H	5	8	3	4	5	7	2	5	6	1
Coach I	8	8	-	5	8	8	-	8	8	-
Coach J	8	8	-	5	8	8	-	8	8	-
Coach K	7	8	1	6	6	9	3	7	8	1
Coach L	7	8	1	3	7	8	1	7	8	1
Coach M	7	8	1	5	7	8	1	7	8	1
Coach N	7	9	2	10	6	8	2	6	8	2
Coach O	5	9	4	20	4	9	5	4	9	5
<b>average value</b>			<b>1.8</b>	<b>6.8</b>			<b>2.0</b>			<b>2.1</b>

of *Purpose*, and *Fulfillment*. This higher starting point left less room for measurable improvement, leading to smaller degrees of change in these outcomes. By contrast, first-time coaches, with lower initial scores in these areas, demonstrated more substantial progress. Notably, first-time coaches reported a marked increase in their *Heightened Sense of Purpose*, attributed to the positive recognition they received for their efforts and the tangible results achieved by the teams they mentored. These experiences provided a transformative sense of professional validation, enhancing their overall sense of achievement.

The outcomes related to *Developed Professional Confidence* and *Heightened Sense of Purpose* were similarly more pronounced for first-time coaches. Lacking prior opportunities to engage in professional coaching roles, these individuals started the program with limited confidence in their abilities and a weaker sense

of being needed in a professional context. Their participation in the program provided them with the structure and experiences necessary to build these attributes, resulting in greater improvements compared to their experienced counterparts. For experienced coaches, the program reinforced their existing expertise but did not serve as a transformative experience. Their primary gains were reflected in the ability to refine their methodologies and further enhance their coaching practices.

The findings also highlighted the critical role of team performance in shaping the outcomes for coaches. Coaches linked to teams that struggled to adopt Agile Management reported limited changes across all outcomes, suggesting that team progress is a key driver of a coach's *Sense of Purpose* and *Fulfillment*. Conversely, first-time coaches working with teams that successfully implemented Agile Management reported significant improvements in these areas, emphasizing the reciprocal relationship between team achievements and coaching outcomes.

These results suggest the importance of tailoring program designs to meet the differing needs of first-time and experienced coaches. For first-time coaches, structured opportunities to build confidence and gain external validation are critical for fostering a strong sense of purpose and fulfillment. On the other hand, experienced coaches may benefit from more advanced challenges and opportunities to engage in peer-level collaborations, ensuring sustained professional growth and engagement. By addressing these distinct needs, the program can maximize its impact across both groups and enhance the overall effectiveness of agile coaching program.

### **4.3 Duration**

The duration of outcomes captures the sustainability of changes experienced by youth entrepreneurial teams and agile coaches following the 2023 Agile Introduction Program (Table 6). Among youth entrepreneurial teams, *Boosting Confidence* in managing future operations was sustained for an average of 1.4 years. Similarly, *Improving Work Efficiency and Quality* demonstrated a slightly longer-lasting impact, averaging 1.5 years. Changes related to *Strengthened*

**Table 5**  
**Comparison table of changes in agile coach groups**

Stakeholder	experience	Developed Professional Confidence			Expanded Professional Networks	Heightened Sense of Purpose			Increased Fulfillment		
		Before	After	degree of change	Increase the number of people you know	Before	After	degree of change	Before	After	degree of change
Coach G	Have experience	5	6	1	9	7	7	-	6	6	-
Coach J	Have experience	8	8	-	5	8	8	-	8	8	-
Coach L	Have experience	7	8	1	3	7	8	1	7	8	1
Coach A	Have experience	8	9	1	3	8	8	-	8	8	-
Coach M	Have experience	7	8	1	5	7	8	1	7	8	1
Coach E	Have experience	6	6	-	10	5	6	1	4	4	-
Coach F	Have experience	7	7	-	12	4	4	-	7	7	-
Coach I	Have experience	8	8	-	5	8	8	-	8	8	-
Coach K	Have experience	7	8	1	6	6	9	3	7	8	1
	average value			<b>1</b>	6.4			<b>1.5</b>			<b>1</b>
Coach B	1st time participating	3	6	3	4	4	6	2	4	8	4
Coach D	1st time participating	5	6	1	4	7	8	1	7	8	1
Coach H	1st time participating	5	8	3	4	5	7	2	5	6	1
Coach O	1st time participating	5	9	4	20	4	9	5	4	9	5
Coach C	1st time participating	8	8	-	2	6	6	-	9	9	-
Coach N	1st time participating	7	9	2	10	6	8	2	6	8	2
	average value			<b>2.6</b>	7.3			<b>2.4</b>			<b>2.6</b>

*Networks and Relationships* also endured for an average of 1.4 years, reflecting the importance of interpersonal dynamics in sustaining team cohesion and collaboration. However, the outcome *Commitment to Societal Impact* showed a comparatively shorter duration, lasting an average of 1.2 years. These findings suggest that while operational and relational improvements tend to persist,

maintaining a strong societal focus may require ongoing program and reinforcement.

For agile coaches, the duration of outcomes revealed differences between experienced and first-time coaches, reflecting variations in baseline preparedness and program engagement. Among experienced coaches, *Developed Professional Confidence* in applying Agile Management was sustained for an average of 1 year, with *Expanded Professional Networks* lasting an average of 0.9 years. Outcomes such as *Heightened Sense of Purpose* and *Increased Fulfillment*, though valuable, were relatively shorter-lived, averaging 0.4 and 0.7 years, respectively. For first-time coaches, the duration of outcomes was generally shorter across all categories. *Developed Professional Confidence* and *Expanded Professional Networks* each lasted an average of 0.6 years, while *Heightened Sense of Purpose* and *Increased Fulfillment* endured for 0.3 and 0.4 years, respectively. These results highlight the influence of prior experience on the sustainability of outcomes, with experienced coaches demonstrating longer-lasting impacts, likely due to their ability to integrate program learnings into existing frameworks.

The observed disparities in outcome duration between youth entrepreneurial teams and agile coaches underscore the importance of tailored strategies to sustain these impacts over time. For youth teams, outcomes related to operational improvements and interpersonal relationships appear relatively resilient, but their *Commitment to Societal Impact* may require structured follow-up interventions, such as mentorship programs or community-driven projects, to ensure long-term engagement. For agile coaches, particularly first-time participants, the shorter duration of outcomes like confidence and fulfillment points to the need for ongoing professional development opportunities, such as advanced training workshops or peer support networks. By addressing these unique needs, the program can extend the longevity of its impacts, fostering deeper and more sustainable benefits for all stakeholders involved.

#### **4.4 Relative importance of outcomes**

The relative importance of outcomes provides crucial insights into the value

**Table 6**  
**Duration table of each achievement**

Stakeholder	Subgroup	Outcome	Duration(year)
Youth entrepreneurial teams	None	Boosting Confidence	1.4
		Improving Work Efficiency and Quality	1.5
		Strengthened Networks and Relationships	1.4
		Commitment to Societal Impact	1.2
		Developed Professional Confidence	1.0
Agile Coaches	Experienced	Expanded Professional Networks	0.9
		Heightened Sense of Purpose	0.4
		Increased Fulfillment	0.7
	First-time	Developed Professional Confidence	0.6
		Expanded Professional Networks	0.6
		Heightened Sense of Purpose	0.3
		Increased Fulfillment	0.4

and priority stakeholders place on the changes brought about by the 2023 Agile Introduction Program. This study assessed stakeholders' perspectives on outcomes using a 1–10 scale, where 10 indicates the highest level of importance. Although this approach does not monetize the results, it effectively highlights the perceived significance of these outcomes within the contexts of professional and organizational impact.

Youth entrepreneurial teams demonstrated a clear prioritization of outcomes that directly influenced their operational effectiveness and team dynamics. *Improving Work Efficiency and Quality* received the highest score, averaging 8.3, signaling that participant regarded this outcome as the most impactful in enhancing their ability to execute projects effectively. *Boosting Confidence* followed closely, with an average score of 7.6, underscoring the program's success

in empowering teams with the self-assurance needed to navigate agile methodologies. Meanwhile, *Strengthened Networks and Relationships* was rated lower at 6.6, indicating that while networking opportunities were valued, they were less critical compared to outcomes that directly supported day-to-day team operations. These findings suggest that youth teams prioritize outcomes tied to tangible improvements in performance and internal dynamics over broader relational benefits.

For agile coaches, the relative importance of outcomes varied significantly based on prior coaching experience. Experienced coaches rated *Developed Professional Confidence* as the most important outcome, with an average score of 6.8, emphasizing the program's role in reinforcing their expertise and affirming their capabilities in agile management. In contrast, first-time coaches assigned even greater importance to *Developed Professional Confidence*, with a high average score of 8.7. This reflects the transformative impact the program had on their professional development, as it provided foundational skills and experiences that boosted their confidence in applying agile methodologies. While both groups appreciated outcomes such as *Expanded Professional Networks*, they placed less emphasis on these compared to the immediate need for professional growth and confidence-building.

These findings highlight the diverse priorities across stakeholder groups and underscore the need for tailored program strategies. Institutional stakeholders value outcomes that enhance their public visibility and recognition, aligning with their goals of reputation-building and advocacy. Youth entrepreneurial teams, in contrast, focus on operational improvements and confidence-building, which directly support their project execution and team cohesion. For agile coaches, particularly first-time participants, the emphasis on confidence as a critical outcome suggests that programs should include structured opportunities for feedback and recognition to reinforce their professional growth.

In conclusion, the relative importance of outcomes reflects the nuanced perspectives of each stakeholder group, shaped by their unique roles and expectations. By addressing these priorities in program design, future program can

ensure greater alignment with stakeholder needs and maximize the program's long-term impact. These findings offer a roadmap for enhancing the relevance and effectiveness of agile management training for diverse audiences. (Table 7)

#### 4.5 Impact factor

The analysis of impact factors sheds light on the relative contributions of the program and external influences to stakeholder outcomes, as evaluated through deadweight (the likelihood of outcomes occurring without the program) and attribution (the proportion of outcomes influenced by external factors). These metrics provide valuable insights into the unique role of the program in driving meaningful changes across stakeholders (Table 8):

**Table 7**  
**Relative importance of each outcome by stakeholders**

Stakeholder	Subgroup	Outcome	Relative importance
Agency of Rural Development and Soil and Water Conservation	None	Strengthened Recognition Among Youth Teams	-
PMI Taiwan	None	Elevated Public Recognition	9
		Improved Organizational Capacity	9
National Taichung University College of Management	None	Increased External Recognition	-
		Boosting Confidence	7.6
Youth entrepreneurial	None	Improving Work Efficiency and Quality	8.3
	Experienced	Strengthened Networks and Relationships	6.6
		Commitment to Societal Impact	6.8
		Developed Professional Confidence	6.8
	Experienced	Expanded Professional Networks	5.8
	First-time	Heightened Sense of Purpose	5.7
Agile Coaches		Increased Fulfillment	5.9
		Developed Professional Confidence	8.7
	First-time	Expanded Professional Networks	7.8
		Heightened Sense of Purpose	7.8
		Increased Fulfillment	7.7

**Table 8**  
**Statistical table of the four major influencing factors of each achievement**

<b>Stakeholder</b>	<b>Subgroup</b>	<b>Outcome</b>	<b>Deadweight</b>	<b>Attribution</b>
Agency of Rural Development and Soil and Water Conservation	None	Strengthened Recognition Among Youth Teams	50%	25%
PMI Taiwan	None	Elevated Public Recognition	50%	25%
		Improved Organizational Capacity	50%	25%
National Taichung University College of Management	None	Increased External Recognition	50%	50%
Youth entrepreneurial teams	None	Boosting Confidence	42%	31%
		Improving Work Efficiency and Quality	33%	28%
		Strengthened Networks and Relationships	47%	44%
		Commitment to Societal Impact	39%	31%
	Experienced	Developed Professional Confidence	44%	39%
		Expanded Professional Networks	53%	47%
		Heightened Sense of Purpose	56%	50%
		Increased Fulfillment	50%	50%
		Developed Professional Confidence	46%	42%
		Expanded Professional Networks	63%	42%
Agile Coaches	First-time	Heightened Sense of Purpose	46%	46%
		Increased Fulfillment	54%	46%

1. Agency of Rural Development and Soil and Water Conservation :

Strengthened Recognition Among Youth Teams: Without the agile program, youth teams had a 50% chance of improved recognition for the agency through other training or external interactions. Of the recognition increase from this

program, 25% was attributed to other policy support and ongoing communication with teams.

2. PMI Taiwan:

- (1) Elevated Public Recognition: The outcome had a 50% likelihood of being achieved through independent promotional activities or industry partnerships. Of the recognition gained, 25% was attributed to active promotion by project members and the support of PMI's internal networks.
- (2) Improved Organizational Capacity: The outcome had a 50% likelihood of being achieved through internal training and resource management. The remaining 50% was attributed to the leadership efforts of PMI during the program, underscoring the organization's active role in leveraging the program to strengthen its internal operations.

3. The College of Management, National Taichung University of Education:

Increased External Recognition: Without participating in this promotional activity, the College had a 50% likelihood of increasing recognition from ongoing external collaborations without this project. Of the recognition received, 25% could be attributed to its efforts in other areas.

4. Youth Entrepreneurial Teams:

- (1) Boosting Confidence: Even without participating in the agile program, teams had a 42% chance of improving operational confidence through other training or project execution. Of the confidence gained post-program, 31% was attributed to positive feedback from external clients or internal team efforts.
- (2) Improving Work Efficiency and Quality: Even without the program, teams had a 33% likelihood of achieving efficiency and quality improvements through other training or support. Post-program improvements were 28% attributed to contributions from other units or team members.
- (3) Strengthened Networks and Relationships: Even without the program,

teams had a 47% chance of networking through business interactions. Of the new connections made, 44% were due to external engagements with clients or experts.

- (4) Commitment to Societal Impact: Teams had a 39% likelihood of maintaining social engagement enthusiasm without the program. Post-program motivation was 31% attributed to other organizations or external influences.

#### 5. Agile Coaches:

- (1) Developed Professional Confidence: Experienced coaches had a 44% likelihood, and first-time coaches had a 46% likelihood of gaining confidence through other training or activities. Of the confidence gained in this program, 39% for experienced coaches and 42% for first-time coaches was attributed to contributions from their organizations.
- (2) Expanded Professional Networks: Experienced coaches had a 53% likelihood, and first-time coaches had a 63% likelihood of networking through other volunteer activities or workshops. Post-program relationships were 47% for experienced coaches and 42% for first-time coaches, gained from external mentoring or agile management activities.
- (3) Heightened Sense of Purpose: Experienced coaches had a 56% likelihood, and first-time coaches had a 46% likelihood of feeling needed through other mentoring cases. For this program, 50% of the need felt by experienced coaches and 46% for first-time coaches came from other organizations' contributions.
- (4) Increased Fulfillment: Experienced coaches had a 50% likelihood, and first-time coaches had a 54% likelihood of achieving a sense of accomplishment through other mentoring cases, seminars, or personal awards. Of the achievement gained in this program, 50% for experienced coaches and 46% for first-time coaches was attributed to contributions from other organizations.

## 5. Conclusion

This study evaluated the outcomes of an agile introduction program designed to empower youth entrepreneurial teams and enhance the professional development of agile coaches. The findings highlight the program's effectiveness in fostering transformative outcomes across diverse stakeholder groups, offering critical insights for aligning program design with impact management principles and organizational objectives.

The Agency of Rural Development and Soil and Water Conservation achieved notable outcomes in Strengthened Recognition Among Youth Teams, demonstrating its role as a policy leader in supporting rural program. This success reflects the agency's strategic use of promotional activities and its commitment to fostering trust with youth teams. Similarly, the PMI Taiwan achieved Elevated Public Recognition and Improved Organizational Capacity, directly contributing to its mission of advancing professional project management practices. The chapter strengthened its industry connections, increased volunteer engagement, and solidified its internal stability, aligning with its organizational objectives. The College of Management, National Taichung University of Education enhanced its external credibility and trust by integrating its practices with practical societal applications, solidifying its role as a key contributor to entrepreneurial education following the implementation of the agile management program.

Youth entrepreneurial teams experienced significant changes, particularly in Boosting Confidence, Improving Work Efficiency and Quality, Strengthening Networks and Relationships, and fostering a Commitment to Societal Impact. The program's agile methodologies enabled teams to adopt structured and transparent processes, leading to improved collaboration and task management. However, variability in the degree of societal contribution highlights the need for deeper integration of community-oriented goals to ensure sustained social impact. Teams consistently valued improvements in work efficiency and quality, underscoring these outcomes as central to the program's success.

While many entrepreneurial teams demonstrated successful agile adoption, some failed to achieve the desired outcomes. This variability can be explained through organizational change theory, particularly in relation to resistance to

change. According to Dent and Goldberg (1999), resistance often stems from structural inertia, entrenched group norms, and individual anxiety regarding potential competence loss.

Conner's (1992) framework of change roles further elucidates this phenomenon by categorizing stakeholders into four roles: initiators, change leaders, implementers, and recipients. In the context of this study, project sponsors acted as initiators, agile coaches served as change leaders, leaders within entrepreneurial teams (such as the business owners) functioned as implementers, and individual team members, including the business owners themselves, represented recipients of the change. Successful project outcomes were often observed when change leaders effectively guided implementers and addressed recipients' concerns. Conversely, when alignment among these roles was lacking, project progress was hindered.

Resistance to change among some teams manifested as limited engagement with Agile Management, unclear role definitions, and conflicting organizational priorities. These challenges align with Kotter and Schlesinger's (1979) framework, which identifies common sources of resistance, including fear of the unknown, lack of trust, and divergent perceptions of change benefits. Addressing these barriers required continuous communication, stakeholder engagement, and adaptive leadership throughout the agile implementation process.

For agile coaches, the program delivered mixed but meaningful results. Coaches reported Developed Professional Confidence, Expanded Professional Networks, Heightened Sense of Purpose, and Increased Fulfillment, with first-time coaches experiencing more pronounced growth compared to their experienced counterparts. These differences suggest the program's potential to significantly impact professional development when tailored to individual coaching needs. However, coaches paired with underperforming teams reported limited changes, emphasizing the importance of aligning team readiness and leadership commitment with coaching assignments.

The study also identified challenges that limited the program's full potential. Teams with micro-scale structures struggled to adopt agile methodologies due to

their lack of capacity for self-organization. Additionally, insufficient leadership determination during the early stages of implementation hindered organizational adaptation to change. These findings suggest that successful agile adoption requires a combination of team readiness, leadership engagement, and strategic program design.

From an academic perspective, the study aligns with impact management principles by demonstrating how stakeholder-specific outcomes can inform program evaluation and resource allocation. It validates the use of agile methodologies as a scalable solution for improving operational efficiency and professional development in entrepreneurial ecosystems. The results also reinforce PMI's mission of advancing professional project management practices, positioning the organization as a leader in driving systemic change through Agile Management.

In conclusion, the agile introduction program successfully empowered youth entrepreneurial teams and enhanced the professional capacities of agile coaches. While challenges remain, the program's strategic alignment with stakeholder priorities underscores its potential to drive systemic change. By refining team selection criteria, fostering leadership commitment, and expanding support for agile coaches, future iterations of the program can amplify its impact. This study demonstrated that agile methodologies, when effectively implemented, could serve as powerful tools for addressing complex challenges and fostering sustainable development in entrepreneurial and rural contexts. The program not only meets organizational and stakeholder goals but also sets a benchmark for scaling Agile Management in diverse settings, advancing innovation and systemic impact.

## **Appendix**

### **Youth Entrepreneurial Teams Interview Outline**

#### **Part 1: Basic Information**

1. Team Name (e.g., OOO Team)
2. Name of Interviewee

3. Do you think your team has successfully introduced the agile management method this time?
  - Very successful (the team understands the agile spirit, applies it to team operations, and can continue to operate on its own in the future)
  - Relatively successful (the team understands the spirit of agile and uses it in their own project operations, but it requires the help of a coach to operate)
  - Fair (the team understands the agile spirit but is limited to preliminary project breakdown. Many communications and discussions still require coaching guidance)
  - Failure (it's unclear if the spirit of agile is understood; the team has never been able to form an operational consensus)
4. Why do you think the team succeeded/failed in introducing agile methods this time?
5. Would you recommend other young entrepreneurial teams to introduce agile management methods?

### **Part 2: Changes and Outcomes**

1. What changes did participating in this agile implementation project bring to your team? Please explain how the process you experienced occurred.
2. How much did your team change its OOO (outcomes) before and after participating in the project? On a scale of 0–10, how did you originally rate OOO (outcomes)? After participating, how did you rate OOO (outcomes)?
3. During the process of participating in this project, what parts or links did your team feel they did well and should be maintained or strengthened in the future?
4. During your team's participation in this project, what parts or links do you think can be improved to make the entire implementation process better?

### **Part 3: Relative Importance and duration of Outcomes**

1. Among these results, give a score for the importance in the mind of your team (1–10 points, 10 points for the most important result, 1 point for the least important result). Please give points in order.
2. How long will the effects of these changes last after the team participates in the Youth Entrepreneurship Agile Energization Program?

3. Assuming that you have not participated in the Youth Entrepreneurship Agile Energization Program, how likely do you think it is that there will be opportunities for the team to achieve the same level of results within a year through other channels or methods?
4. In addition to all the organizers, coaches, and sponsors of the Youth Entrepreneurship Agile Energization Program, are there any other people or organizations that contributed to this achievement?

### **Agile Coach Interview Outline**

#### **Part 1: Basic Information**

1. Name
2. Your coaching team (name)
3. Do you think this time you served as an SM volunteer and helped the team introduce agile methods? Do you think the team you were paired with has successfully introduced them?
4. What do you think are the reasons for success/failure in assisting the team to introduce agile methods this time?
5. What is your experience as an agile management volunteer in the past 2 years?
  - This is the first time to participate in agile volunteer coaching.
  - Have experience as an agile management volunteer outside of this project.

#### **Part 2: Changes and Outcomes**

1. What changes did participating in this agile implementation project bring to you? Please explain how the process you experienced occurred.
2. How much did you change your OOO (outcomes) before and after participating in the program? On a scale of 0–10, how did you originally rate OOO (outcomes)? After participating, how did you rate OOO (outcomes)?
3. In the process of participating in the project, what parts or links do you think you did well and should be maintained or strengthened in the future?
4. During your participation in the project, what parts or links do you think can be improved to make the entire implementation process better?

#### **Part 3: Relative Importance and duration of Outcomes**

1. Among these results, give a score for the importance in your mind (1–10 points,

- 10 points for the result that you value most, 1 point for the result that you value least). Please give points in order.
2. How long will the effects of the changes you have achieved by participating in the Youth Entrepreneurship Agility Enhancement Program last?
  3. Assuming that you have not participated in the Youth Entrepreneurship Agile Energization Program, how likely do you think it is that you will have the opportunity to achieve the same level of results through other channels or methods within one year?
  4. In addition to all the organizers, coaches, and sponsors of the Youth Entrepreneurship Generation Agile Empowerment Program, are there any other people or organizations that contributed to this achievement?

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