

# Entrepreneurship Capacity of Farmers for Community Based Entrepreneurship

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**Abstract.** United Nations recognizes the vital role of the local communities like farmers and highlights the significance of leveraging their potential to achieve the Sustainable Development Goals (SDGs) through capacitating the farmers with their entrepreneurship competency. The study assessed the level of personal entrepreneurial competencies of farmers towards community-based entrepreneurship engagement. Specifically, it determines which competencies they excel in, recognizes the differences of entrepreneurial competency in terms of gender, business experience, and educational attainment and its correlation to age. Furthermore, the framework was developed in implementing community-based entrepreneurship. Descriptive research was utilized; 206 farmers and are the respondents of this study; they were surveyed, and assessed the level of entrepreneurial competencies using the Personal Entrepreneurial Competencies (PEC) Questionnaire with fifty-five questions through Likert scale. Findings reveal that farmers have a moderate entrepreneurial competency it ranks first the risk-taking and goal setting as the least. Farmer self-confidence increases as they age; male farmers are more persuasive, farmers with business experience have higher competency for opportunity-seeking and risk-taking, and farmers' competency differs in terms of their educational attainment. Developing a framework for implementing community-based entrepreneurship should focus on intensifying the entrepreneurial competency of farmers to realize the success of their community based-enterprise.

**Keywords:** Entrepreneurial competency, community based-entrepreneurship, farmers, community-based-enterprises.

## 1. Introduction

Entrepreneur's competency is a dynamic factor in achieving quality performance to guarantee sustainable growth and success of an enterprise within a competitive business environment. The value of entrepreneurial competency had increased during the earlier decades due to the significant role played by the human factor, mostly the entrepreneur of a business enterprise (Kochadai, 2011), and in promoting entrepreneurship to the farmers. The characteristics of entrepreneurship and entrepreneurial competence developed a close unity to improve the performance of a new enterprise (Mubarak, et al., 2019).

Farmers need entrepreneurial competency in applying agribusiness and modernization of their farms. Likewise in developing farmers' community-based entrepreneurship requires entrepreneurial competency of the farmers.

According to Bergevoet et al. (2005), for several farmers entrepreneurship could be a new situation, and shaping farmers' entrepreneurial intentions is influenced by enhancing their entrepreneurial qualities and competencies (Mubarak, et al., 2019).

In farming, entrepreneurship is the practice of creativity to adjust a simple farming concept into a practical new farming enterprise. This could involve segregating an existing farming enterprise and inspiring it to grow " (Kahan, 2013, Arellano & Delos Reyes, 2019) by encouraging community-based entrepreneurship that proposed an optimistic technique towards poverty reduction in disadvantaged communities (Parwez, 2017) just like the agricultural sector in the Philippines where poverty is still a major concern. In this study, it will adopt the definition of community-based entrepreneurship as the development of identifying, generating (i.e. developing,

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collectivizing, and evaluating), and taking advantage of opportunities to cooperatively produce future goods and services that provide economic, social, and/or ecological benefits for the local communities in which they are surrounded, and/or society at large. Collaborating the local communities like farmers can form enterprises that challenge local problems and create multiple benefits unachievable to individual entrepreneurs (Peredo & Chrisman, 2006).

To achieve the Sustainable Development Goals (SDGs), the United Nations recognizes the role of local communities like the farmers and highlights the significance of leveraging their potential. Several studies notice the development of alternative forms of community-based organizations that encourage sustainable and resilient local economies (Daskalaki et al., 2015; Dubb, 2016) similar to farmer community-based entrepreneurship.

Supporting the promotion of community-based entrepreneurship to farmers the Philippines government crafted RA 11321 or the “Sagip Saka Act” instituting the farmers and fisherfolk enterprise program. This program of the department of agriculture aims to ensure the sustainability of agriculture and fishing enterprise. Understanding that an entrepreneurial and innovative environment starts with the people who work on the farm would help Philippine agriculture to continue to progress.

However, community-based entrepreneurship is not commonly practiced or even stimulated in the countryside or rural areas. It remained relatively little emphasis in agricultural or business literature. According to Arellano & Delos Reyes (2019), investigational research on rural/countryside entrepreneurship is moderately rare and basically, this model remains unpopular, and at the same time unusual to those involved in technical efficiency. Apart from entrepreneurial competency, leadership is also a critical element for the achievement of community-based entrepreneurship (Anderson et al.

2006). To realize business success in creating community-based entrepreneurship, a farmer requires to make strategic, and innovative decisions concerning all levels of the business, and cultivating competencies can be a way to improve entrepreneurial success (Bergevoet et al. 2005). A study, therefore, on the entrepreneurship capacity of Farmers for community-based entrepreneurship is vital. This study aims to assess the level of personal entrepreneurial competencies of farmers towards community-based entrepreneurship. Specifically, it aims to determine which personal entrepreneurial competencies they excel, and which needs improvement. Also, it identified the correlation of the age of farmers to entrepreneurial competency. Furthermore, it distinguishes the differences in entrepreneurial competency in terms of gender, business experience, and educational attainment. Finally, it developed the framework for implementing the entrepreneurship capacity of farmers for community-based entrepreneurship.

## **2. Literature Study**

### *Community-based entrepreneurship*

According to Hertel & Belz, (2017), community-based entrepreneurship is an alternative social enterprise model that can result in an enterprise and it's a form of organization that has grown occurrence, a conservative enterprise, it's the members of the local community that owned and controlled, it is recognized and its drive is to create economic, social, and/or ecological benefits.

While the shared entrepreneurial action can happen in all kinds of communities –online and offline, with well-defined by interest, identity, or place. Community-based enterprises can arise in different locales, including villages, regions, or suburbs in both the developing and the developed worlds.

The main benefits of community-based entrepreneurship. Entrepreneurship act as an important role in neighborhoods and local

communities (Shane, 2009). The creation of local businesses generates employment opportunities for local people and generates incomes, and hence is an influential strategy for alleviating poverty (Peredo & Chrisman, 2006). Through combining forces, the members of local communities can gather the required resources to start enterprises that could not have been recognized by individuals. Peredo and Chrisman (2006) provide various examples of community-based enterprises that are recognized in rural communities which suffered from severe poverty before they collectively made use of their rich natural resources.

In addition, community-based entrepreneurship yields a collection of added benefits. First, it commonly leads to the empowerment of under-privileged groups like the indigenous people (Handy et al., 2011). Second, community-based entrepreneurship generates social capital within the communities and plays a role in social cohesion (Somerville & McElwee, 2011). Third, community-based entrepreneurship leads to improved capacity of active citizenship. Fourth, community-based enterprises frequently include a shift to a more manageable use of natural resources and the preservation of the natural environment (Peredo & Chrisman, 2006; Galappaththi et al., 2021). Fifth, community-based entrepreneurship activates further entrepreneurial activity in the communities by generating an entrepreneurial mindset among the locals (Bygrave & Minniti, 2000) and by opening up new entrepreneurial opportunities (Peredo & Chrisman, 2006). To conclude, cases of successful community-based enterprises frequently serve as role models for other communities encountering similar problems. This refers to as “transmissibility”. Peredo and Chrisman (2006)

Developing the entrepreneurial competency of farmers plays a vital role in the success of community-based entrepreneurship in creating community-based enterprises.

### *Entrepreneurial Competency*

Successful entrepreneurs are documented to have firm entrepreneurial skills that hold the skill to solve business problems and to acquaint themselves with the changing environment (Nieman et al, 2004). Entrepreneurial competence can be stated to be a kind of human investment that involved skills that are vibrant for the responsiveness of their capacities (Mujuru, 2014). Also, competencies are required to build and progress the company’s performance in the future or as a foundation for the company’s competitiveness in the long term similar to farmers’ community-based entrepreneurship.

According to Herliana, et.al, (2019), the growth of entrepreneurial skills is anticipated for farmers to develop their business to flourish just like the agribusiness situation. To realize business success, a farmer requires to develop a plan, be innovative, make decision-related to all stages of the business. Hence, farmers depend on entrepreneurial competencies and characteristics to empower them to become more successful. The topic of entrepreneurial competencies has increased in popularity as a way for determining entrepreneurial behavior among individuals. According to Nieuwoudt et.al, (2017) the entrepreneurial competencies, connected with behavior and decision-making skills, have been confirmed to have an encouraging influence on the financial performance of a business. Previous research has shown that there is a positive influence between entrepreneurship competencies and business performance, which means that the higher the entrepreneurship competencies will have a positive effect on business performance (Mubarak, et.al, 2019).

Man, Lau, and Chan (2002) state that entrepreneurial competencies can be mentioned to the actions like assessing information, recognizing customer needs, scanning the environment, articulating strategies, carrying networks together, enchanting initiative, presenting diversity, and collaboration. Thus, the role of an entrepreneur’s competency is an infinitely

critical aspect in appreciating excellence in performance to pledge sustainable development and success of an enterprise amidst a viable business environment (Kochadai, 2011).

According to Nieuwoudt et.al, (2017) entrepreneurial competencies, as a whole, indicate that a farmer needs to focus on several competencies at the same time, in consequence of which certain competencies will be neglected. While McElwee (2008) recommends that networking, innovation, risk-taking, team working, reflection, leadership, and business monitoring are essential to emerging and cultivating the farm business. However, farmers need to be owners, at the same time managers and a worker, which generates an increased mandate on the farmer to execute well on numerous levels. Though, if farmers focus on individual competencies, they will be able to recognize where they are missing and make use of essential measures to counter this. Thus, the management of a farm means that a farmer desires to be competent in all of the competencies.

Opportunity competencies, relationship competencies, conceptual competencies (analytical competencies and innovative competencies), organizing competencies (operational competencies and human competencies), strategic competencies, commitment competencies, learning competencies, and personal strength competencies are the 10 entrepreneurial competencies identified by Man (2001) stated by (Nieuwoudt, 2016).

Lans, et al. (2008) have emphasized, the factual potential of concentrating on entrepreneurial competence lies in (1) making the small-business owner aware of his / her competence level, (2) recognizing the importance of detailed competencies to business success, and (3) providing succeeding direction and guidance in competence and skill expansion. Thus, what farmers need right now is to develop new skills and competencies to remain competitive.

### *Community-Based Enterprise*

To promote entrepreneurship to the farmers in the rural areas, a community-based enterprise was introduced to them.

According to Peredo & Chrisman (2006), the community-based enterprise can be an effective means to eradicate poverty, empower local farmers (Handy et al., 2011) and women (Torri & Martinez, 2011), offer sustainable, local energy systems (Cieslik, 2016), complement indigenous communities' culture and needs with market requirements (Giovannini, 2014), line up sustainable resource management and the commercial usage of biodiversity (Garcia-Lopez, 2013), revitalize deprived regions after socioeconomic crises (Johnstone & Lionais, 2004), and recompense for the loss of local community assets instigated by socio-demographic variations and cuts in governmental expenditures (Haugh, 2007).

There are several studies (Rydin, and Pennington 2000; Maguire, and Truscott 2006) state that the community engagement aspect is based upon the modest principle that the community knows best about their problems, thus permitting policymakers to act accordingly. The accessibility of local market, skills, and local raw materials joint with strong institutional support are keys for successful community-based enterprises.

There are six stages in the process of community-based enterprise creation including opportunity identification; idea articulation; idea ownership; stakeholder mobilization; opportunity exploitation; and stakeholder reflection (Haugh, 2007). According to the stages, the enterprise creation process begins with the acknowledgment of an unfulfilled need within a local community. Next, the idea givers share their thoughts, develop an initial business idea, create a formal team, and assemble the required resources. Following this, with the support of the local community, they develop, evaluate and implement a business plan, form a legal business, and, finally, enter the market. Though the six stages serve as a clear starting

point through providing an objective that describes how the enterprise creation process unfolded over time, however, it still needs an understanding of the dynamics that trigger and fuel this process (Hertel & Belz, 2017).

There is a need to improve the entrepreneurial competency of farmers having presented the significance of entrepreneurial competency for the success and sustainability of the community-based enterprise. However, Lumpkin et al., (2018) state that researchers and practitioners approve of the available potential of community-based entrepreneurship, and study on this phenomenon is still in its infancy. Thus far, most of the research has remained descriptive (Hertel & Belz, 2017) and still little about how these enterprises emerge (Daskalaki et al., 2015) or why some communities are more amenable to community-based entrepreneurship (Peredo & Chrisman, 2006). Nevertheless, to leverage the transformative capacity of rural communities, which is crucial for the achievement of the SDGs, it must gain a more nuanced understanding of the underlying instruments and dynamics of effective community-based enterprise formation. Lastly, Anderson et al. (2006) state that for a community-based enterprise to be successful leadership is the most critical element that needs to take into account.

### 3. Methodology

#### *Research Design*

A descriptive quantitative research design was used to determine the level of personal entrepreneurial competencies of the farmers of San Jose and Sagnay, Camarines Sur. Descriptive study is more structured and investigative hence providing a precise and effective illustration of people, situations, or events and information on the existing condition of a phenomenon (Rahl, 2017) which is suitable to this study. That assesses the personal entrepreneurial competencies using the Personal Entrepreneurial Competencies (PEC) Questionnaire with fifty-five (55) questions through a Likert scale.

#### *Sample Size*

The populations of the study are the farmers in selected areas in San Jose and Sagnay, Camarines Sur. Using sloven formula a sample of two hundred six (206) farmers were identified as the respondent of this study. One of the criteria in choosing the respondents of the study was the farmers should have an interest in engaging in enterprise development.

#### *Data Collection Method*

The study collected data from April to July 2021 with the help of a research assistant. The researcher visited first the site of the study to identify possible participants. The number of participants in the study was identified using the Slovin formula and was chosen through convenience sampling. Data were collected through a structured questionnaire survey, interview, and observation. Five Likert-type tests based were used on a scale from “always to never” to measure the level of personal entrepreneurial competencies of the farmer’s respondent. Participation of the farmer’s respondent was voluntary and oral consent was provided. There was a short orientation of the research objectives of the study. Confidentiality was assured on their responses and the voluntary nature of the interviews.

#### *Questionnaire Design*

This research questionnaire of this study has two parts. The first part of the questionnaire was the demographic profile of the respondent that includes sex, age, educational attainment, and business experience. Followed by the personal entrepreneurial competency questionnaire (PEC) with 55 items to measure 10 PECs with different indicator questions. These PECs include opportunity seeking, persistence, commitment to working contract, demand for quality/efficiency, risk-taking, goal-setting, information seeking, systematic planning and monitoring, persuasion and networking, and self-confidence (Depositario, et al. 2011). PEC scores were interpreted using the following: 20- 25 *Very Strong*; 15-19 *Strong*; 10-14 *Moderate*; 5-9 *Fair*; 0-4 *Weak*.

*Data Analysis Method*

A descriptive statistic was used such as the frequency and percentage for the demographic, to establish the profile of the respondent. Descriptive statistics helped to describe the personal entrepreneurial competency of farmers. The descriptive statistics were initially obtained and analyzed to understand the relationship, significance, and differentiation. According to Al and Bhaskar (2016), descriptive statistics provide a summary of the data and “try to describe the relationship between variables in a sample or population” (p.55).

Weighted mean was utilized to examine the level of personal entrepreneurial competency of the farmer’s respondents.

Pearson Correlation was applied to determine the significant relationship of age to personal entrepreneurial competency. A Pearson’s correlation analysis was also conducted. With Pearson’s correlation analysis, it determined whether there was a significant positive or negative correlation between the age and the personal entrepreneurial competency being studied. By using Pearson’s correlation coefficients, it determined whether an increase in age results in an increase, decrease, or no change in the level of personal entrepreneurial competency. The significance of the relationship was based on a 0.05 level of significance.

T-test Independent and One-Factor ANOVA

Table 1.  
*Profile of Farmers Respondent*

Demographic Characteristic	Farmers	
	n= (206)	%
<i>Gender</i>		
Male	62	30%
Female	144	70%
<i>Age</i>		
18-30	24	12%
31-40	34	16%
41-50	52	25%

one way was applied to distinguish entrepreneurial competency in terms of gender, business experience, and educational attainment.

**4. Finding and Discussion**

*Demographic Profile of respondent*

Table 1 reflects the profile of the respondents of this study. The findings reveal that the respondent of the study was 70% women and 30% men, it was noted that participation of women in farming is now visible. However, since women are marginalized due to tradition/ culture then they should be part of the decision-making in farming. In terms of age, the majority of farmers’ respondents are from age 41 and above. It can be noticed that farmers are getting aged and the challenge of influencing the young generation to engage in farming. In general, youths aren’t that attracted to agriculture. Most have prejudiced that agriculture is constantly associated with farming. Based on several studies it mentions that a youth’s first impression about a career is important. Thus, entrepreneurship should leave a positive impression on them. (Heinart & Roberts, 2016).

The majority of farmers have reached college level to graduate in terms of their educational attainment, and the majority of the farmers have business experience.

Table 1. (Continued)  
*Profile of Farmers Respondent*

Demographic Characteristic	Farmers	
	n= (206)	%
51-60	45	22%
61 & above	51	25%
College Graduate	33	16%
College level	39	20%
High School Graduate	34	17%
High School Level	37	18%
Elementary Graduate	23	11%
Elementary Level	40	19%
<i>Business Experience</i>		
With Business Experience	144	70%
Without Business Experience	62	30%

*Farmers Entrepreneurial Competency*

Table 2 reflects the farmer’s entrepreneurial competency using a weighted mean. From the 10 indicators of personal entrepreneurial competency, the farmers have moderate competency for the nine (9) indicators and one (1) fair competency.

Farmers have moderate competency for opportunity seeking, persistence, commitment to work, demand for quality, risk-taking, information seeking, systematic planning, persuasion and networking, and self-confidence. While they have fair competency in terms of goal setting. Generally, it was noticed that farmers have moderate competency to the majority of the indicators of personal entrepreneurial competency. Therefore, there is a need for capacity training to advance the entrepreneurial competency of the farmers from moderate to very strong to help them

become more entrepreneurial and improve their livelihood. Similarly, cultivating the entrepreneurial competency of farmers would be valuable in the implementation of R.A. no.11321 “an act instituting the farmers and fisherfolk enterprise development program of the department of agriculture” otherwise known as “The Sagip SAKA Act”.

Moreover, it was observed that risk-taking was ranked 1<sup>st</sup> by the farmers and the least was the goal setting. This opposed the findings of Quilloy (2015), that risk-seeking is rarely the case among farmers and “traditional farmers are rational but risk-averse (reluctant to take risks) (Norton, et al. 2014 in Arellano & Delos Reyes, 2019).” This supports the least personal entrepreneurial competency of farmers for goal setting. Then, risk-averse pertains to someone who does not like the likelihood for an unwanted event to occur. They are also, usually (40%) weak goal-setters.

Table 2.  
*Farmers Entrepreneurial Competency*

Personal Entrepreneurial Competency	Farmers	Interpretation	Rank
Opportunity Seeking	10.7	Moderate	3
Persistence	9.8	Moderate	9
Commitment to Work	10.56	Moderate	4
Demand for Quality	10.03	Moderate	8
Risk-taking	13.68	Moderate	1

Table 2. (Continued)  
Farmers Entrepreneurial Competency

Personal Entrepreneurial Competency	Farmers	Interpretation	Rank
Goal Setting	9.21	Fair	10
Information Seeking	10.28	Moderate	7
Systematic planning	10.35	Moderate	6
Persuasion and Networking	10.51	Moderate	5
Self-confidence	10.88	Moderate	2

*Legend: 20- 25 Very Strong; 15-19 Strong; 10-14 Moderate; 5-9 Fair; 0-4 Weak*

*Correlation of Age of Farmers to Entrepreneurial Competency*

Table 3 reflects the results of Pearson correlation it shows a very weak significant relationship between age with information seeking ( $r=0.179, p=0.010$ ); *systematic planning* ( $r=0.139, p=0.046$ ) and persuasion & networking ( $r=-0.198, p=0.004$ ). Likewise, a weak significant relationship exists between age with risk-taking ( $r= 0.285, p=0.000$ ) and self-confidence ( $r=0.296, p=0.000$ ). It was observed that the positive relationship obtained indicates that as farmers age their competency in risk-taking, self-confidence, information seeking, systematic planning, and persuasion & networking increases.

It was noticed that farmers are more risk-taking and advance their self-confidence as they get older. This was the result when they gained more experience in farming and consider it as a business. They also explore

new ways and techniques on how they can improve their farming, it was observed that this contributes to their entrepreneurial competency. Similarly, it was noted that as farmers get matured their network or linkages in the private sector and government office align with farming increases where they can access more information that can help them in their farming, so they become more information seeking and persuasive. Likewise, it was observed that they are systematic in planning when engaging in their farming activities they learned it through several years in farming. This is similar to the findings that entrepreneurial competencies are directly correlated to technical efficiency (Kahan, D., 2013) and “entrepreneurship characteristics significantly and positively influence business performance when linked together with entrepreneurial competencies as a whole.” (Mubarak, et.al, 2019)

Table 3.  
*Correlation between Age and Entrepreneurship Competencies of Farmers*

Relationship of Age with	Correlation Coefficient	P-value
Opportunity Seeking	0.086	0.219
Persistence	0.112	0.108
Commitment to Work	0.015	0.829
Demand for Quality	0.106	0.130
Risk-taking	0.285	0.000
Goal Setting	-0.003	0.969
Information Seeking	0.179	0.010
Systematic planning	0.139	0.046
Persuasion and Networking	0.198	0.004
Self-confidence	0.296	0.000



*Differences in Entrepreneurship Competencies of Farmers According to Gender*

The results of the T-test independent is reflected in table 4, which shows that from the 10 indicators of entrepreneurship competency only Persuasion & Networking ( $mean_{female} = 10.25, mean_{male} = 10.98, p = 0.046$ ) revealed a significant difference between females and males. It was observed that male has higher competency with female in terms of Persuasion & Networking. Then, the rest

of the indicators show no significant differences under gender. However, male farmers are more persuasive than their counterparts. It was observed that male farmers are more persuasive to create networks and linkages to improve their farming activities and they join different organizations. Moreover, most of the women farmers are doing household chores and have limited time to associate or join an organization/association.

Table 4.  
*Entrepreneurial Competencies of Farmers according to Gender*

Relationship of Age with	Mean Score		P-value
	Female	Male	
Opportunity Seeking	10.63	10.78	0.454
Persistence	9.83	9.78	0.835
Commitment to Work	10.63	10.49	0.519
Demand for Quality	9.85	10.20	0.142
Risk-taking	13.42	13.94	0.222
Goal Setting	9.15	9.27	0.616
Information Seeking	10.19	10.37	0.349
Systematic planning	10.31	10.39	0.733
Persuasion and Networking	10.25	10.98	0.046
Self-confidence	10.56	11.19	0.060

*Differences in Entrepreneurship Competencies of Farmers According to Business Experience*

Table 5 reflects the results of the T-test independent it reveals that from the 10 indicators of personal entrepreneurial competency only Risk-Taking ( $mean_{no} = 12.44, mean_{yes} = 14.22, p = 0.000$ ) discovered a significant difference between farmers with business experience and with no business experience. It was observed that farmers with business experience have higher competency in terms of risk-taking as compared to farmers without business experience. The rest of the indicators display no significant

differences under business experience. Thus, farmers with business experience are more risk-taker than those farmers without business experience. It was noticed that farmers with business experience would usually invest, adopt & used the technology to upgrade their farming business. Farmers are aware that they need to take a risk and embrace innovation. However, farmers without business experience are hesitant in taking the risks to improve their farming engagement. Their experience is limited to farming and has not yet shifted, their mindset into the farming business.

Table 5  
*Entrepreneurial Competencies of Farmers according to Business Experience*

Relationship of Age with	Mean Score		P-value
	No	Yes	
Opportunity Seeking	10.26	11.90	0.003
Persistence	9.48	9.94	0.080

Table 5. (Continued)  
*Entrepreneurial Competencies of Farmers according to Business Experience*

Relationship of Age with	Mean Score		P-value
	No	Yes	
Commitment to Work	10.60	10.64	0.807
Demand for Quality	9.95	10.60	0.683
Risk-taking	12.44	14.22	0.000
Goal Setting	9.13	9.24	0.616
Information Seeking	10.23	10.31	0.684
Systematic planning	10.26	10.39	0.614
Persuasion and Networking	10.63	10.47	0.576
Self-confidence	10.55	11.02	0.158

*Differences in Entrepreneurship Competencies of Farmers According to Educational Attainment*

Table 6 shows the results of the One-factor ANOVA one-way which revealed the significant differences in personal entrepreneurial competencies along with educational attainment under risk-taking ( $p=0.012$ ), information seeking ( $p=0.032$ ), persuasion & networking ( $p=0.014$ ), and self-confidence ( $p=0.013$ ).

Under risk-taking, Post Hoc analysis shows elementary graduate has the highest competency (14.68). There are no significant differences among elementary level (14.63), high school graduates (12.94), and college graduates (12.94). However, there is a significant difference between high school level (14.19) and college-level which is also the lowest competency (12.82). It was noticed farmers who are elementary graduates are risk takers since they consider limited factors just unlike the college level, they are the least risk-taker because they look into several factors before deciding to take a risk and consider how they will minimize the risk of uncertainty.

Under information seeking, Post Hoc analysis shows college level has the highest competency (10.67). There are no significant differences among elementary level (10.48), elementary graduate (10.32), college graduate (10.27), and high school level (10.19). High school graduates have the lowest competency

(9.65). It was observed that farmers who reach college level are keen to seek more information on how they can improve and upgrade their farming activities while farmers who are high school graduates have the tendency to be complacent and contented on what they already know and for them that is already enough since they can survive.

Under persuasion & networking, Post Hoc analysis shows college graduates have the highest competency (10.94). There are no significant differences among elementary level (10.83), elementary graduate (10.59), college-level (10.59), and high school level (10.49). High school graduates have the lowest competency (9.53). It was noted that farmers who are college graduates are persuasive and have created several networks that can help them in their farming activities.

Under self-confidence, Post Hoc analysis shows high school level has the highest competency (11.87). There are no significant differences among elementary level (10.45) and college graduate (10.03). However, there are significant differences among elementary graduates (11.64), college-level (10.95), and high school graduates (10.50). College graduates have the lowest competency (10.03). It was observed that farmers who are high school level gain more self-confidence in farming because of their long commitment to farming so their experience provided them their competency for self-confidence.

Table 6.  
*Entrepreneurial Competencies of Farmers according to Educational Attainment*

Entrepreneurial Competency (Indicator)	Educational Attainment				High School Graduate	High School Level	P-value
	College Graduate	College level	Elementary Graduate	Elementary Level			
Opportunity Seeking	10.33	10.64	10.59	11.03	10.62	10.95	0.283
Persistence	9.58	10.21	10.09	9.73	9.74	9.60	0.495
Commitment To work	11.03	10.46	9.77	10.55	10.77	10.57	0.138
Demand for Quality	10.12	9.59	9.86	10.58	10.06	9.89	0.300
Risk Taking	12.94	12.82	14.68	14.63	12.94	14.19	0.012
Goal Setting	9.21	9.23	9.36	9.25	9.00	9.27	0.981
Information Seeking	10.27	10.67	10.32	10.48	9.65	10.19	0.032
Systematic planning	10.49	10.41	10.64	10.20	10.03	10.43	0.830
Persuasion & Networking	10.94	10.59	10.59	10.83	9.53	10.49	0.014
Self-confidence	10.03	10.95	11.64	10.45	10.50	11.87	0.013

*Framework for implementing the entrepreneurship capacity of farmers for community-based entrepreneurship.*

Developing a framework for the implementation of community-based entrepreneurship for farmers, considered the personal entrepreneurial competency of farmers. The personal entrepreneurial competency of farmers was observed that they have moderate competency to most of the indicators. Since entrepreneurship is a new situation for the majority of the farmers (Bergevoet et al., 2005) and farmers' entrepreneurial intentions are influenced by improving or advancing their entrepreneurial qualities and competencies (Mubarak, et al., 2019).

For farmers to become more entrepreneurial their personal entrepreneurial competency needs to improve and enhance to level up their competency from moderate to very strong. An entrepreneurial capacity training is needed to help the farmers equip to manage the operation of their community-based enterprise. The training design formulated by International Labor Organization (ILO) for

the Community-Based Enterprise Development (C-BED) program will be adopted in this framework. C-BED's goal is to empower entrepreneurs through peer-to-peer workshops, it adopts an innovative methodology for peer-based learning through networking and activities; low cost and straightforward to implement, it is particularly appropriate for harder to reach entrepreneurs (ILO) or aspiring entrepreneurs just like farmers. It will have two phases of training: phase 1 includes training on orientation to entrepreneurship; basic financial literacy; and aspiring entrepreneurs. While phase 2 includes training about the small business owners; financial education for business planning; orientation to working capital and microfinance; and tools for business plan development. However, these two phases of training will have separate implementation. This entrepreneurial capacity will improve the personal entrepreneurial competency of the farmers. Third, promoting community-based entrepreneurship will lead to organizing the farmers into a community-based enterprise. It will also provide capacity training for leadership and management of their organization. Four, implementation of phase

2 of the training for community-based entrepreneurship development. There was evidence that C-BED training had an inspiring impression on practices that boost

income security. Fifth, monitoring and assisting the community-based enterprise established by farmers.

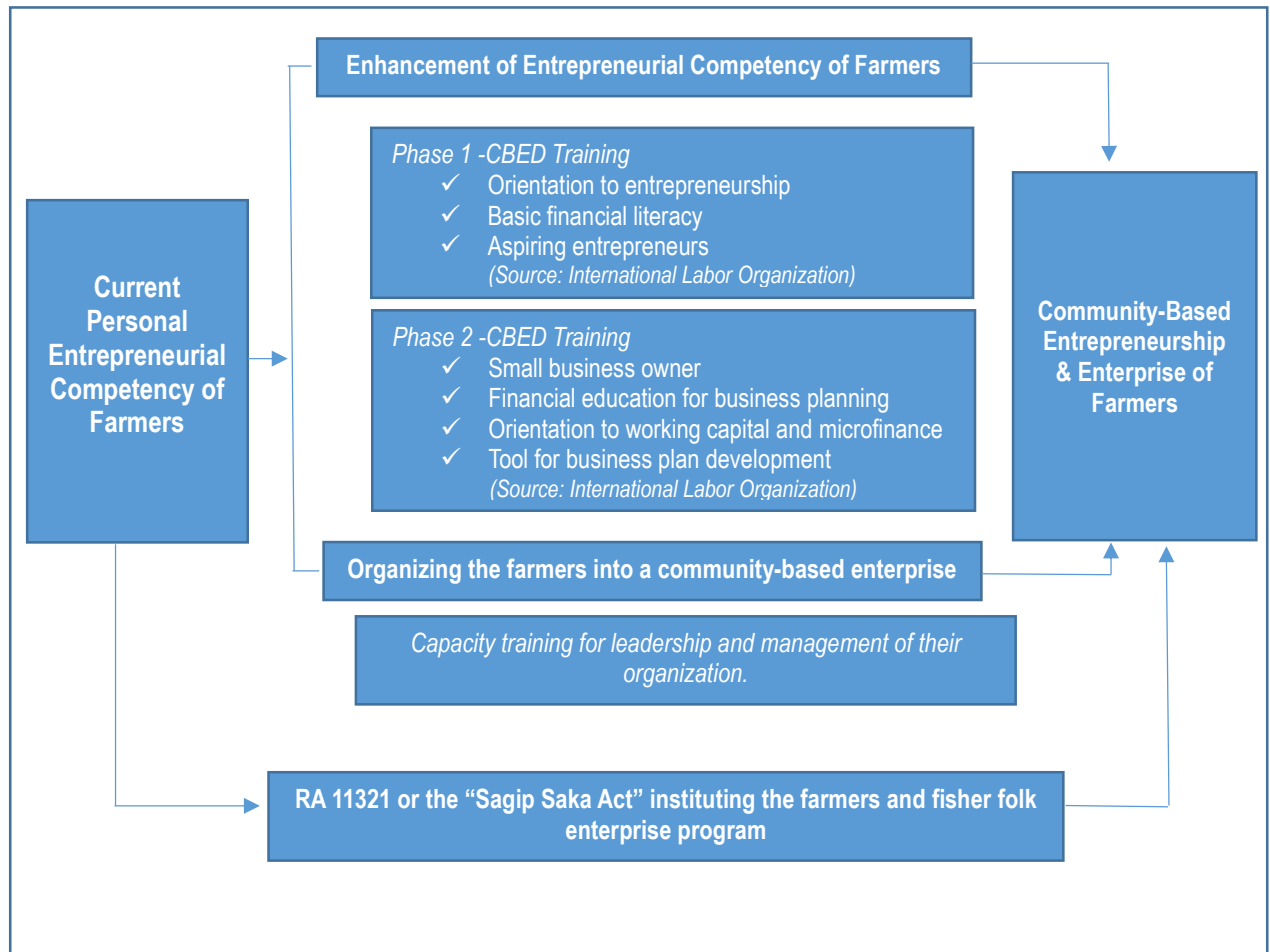


Figure 1. Framework for Implementing Community-Based Entrepreneurship

## 5. Conclusion

This study determined the personal entrepreneurial competencies of farmers, that they have moderate competencies in opportunity seeking, persistence, commitment to work, demand for quality, risk-taking, information seeking, systematic planning, persuasion and networking, and self-confidence. For goal setting, the farmers have fair competency. The farmers excel in risk-taking that they continue their farming activities despite the calamities they experienced. However, the farmers need to

improve and advance in goal setting to be more strategic in their farming activities. Also, risk-taking is correlated to the age of the farmers, when farmers got experience and become mature, they are taking more risks in their farming activities. Furthermore, the differences in entrepreneurial competency in terms of gender the male farmers are more persuasive & networking, farmers with business experience are more risk-taker and the competency of farmers for risk-taking, information-seeking, persuasion & networking, and self-confidence differed in terms of their educational attainment. Finally, the basis for developing the framework for implementing the entrepreneurial capacity of

farmers for community-based entrepreneurship is the current personal entrepreneurial competency of the farmers.

Thus, considering the existing personal entrepreneurial competency of the farmers they need to improve and enhance to level up their competency from moderate to very strong. The entrepreneurial capacity for farmers will have two phases and it aims to advance the personal entrepreneurial competency of the farmers.

Furthermore, once the farmers advance their entrepreneurial competency, then it will promote community-based entrepreneurship that can create community-based enterprises for the farmers. Generally, community-based enterprise conception creates a factual means to foster the achievement of various SDGs, including promoting sustainable cities and communities (SDG 11), eradicating poverty, hunger, and inequalities (SDGs 1, 2 & 11), and fostering equality, affordable, clean energy, and sustainable consumption and production (SDGs 5, 7 & 12).

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