Developing Farmers and Fisherfolks Entrepreneurial Capacity towards Community Based-Enterprise

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Abstract. The study assessed the level of personal entrepreneurial competencies of farmers and fisherfolks towards community-based enterprise 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 enterprises. Descriptive research was adopted; 206 farmers and 100 fisherfolks 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 and fisherfolks have a moderate entrepreneurial competency; both rank first the risk-taking and goal setting as the least. Farmer self-confidence increases as they age while for fisherfolks it declines; 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. While fisherfolks show no difference in entrepreneurial competency for both men and women, with or without business experience, and only the competency for persistence differ in their educational attainment. Developing a framework for implementing community-based enterprise should focus on intensifying the entrepreneurial competency of farmers and fisherfolks.

Keywords: Entrepreneurial competency, farmers, fisherfolks, community-based enterprise

I. INTRODUCTION

United Nations recognize the role of local communities and emphasize the relevance of leveraging their potential for achieving the Sustainable Development Goals (SDGs) (e.g., United Nations, 2015; UNDP, 2018; UNDP Environment and Energy Group, 2010). With this it can be noticed the emergence of alternative forms of community-based organizations that promote sustainable and resilient local economies (Daskalaki et al., 2015; Dubb, 2016). Community-based enterprise is one of the forms of organization that has gained prevalence, an enterprise that are conventional, owned and controlled by the members of a local community, they are recognized and its purpose is to generate economic, social and/or ecological benefits (Hertel & Belz, 2017). Through joining forces, local communities have the capacity to create enterprises that tackle local problems and generate multiple benefits unattainable to individual entrepreneurs (Peredo & Chrisman, 2006) and farmers and fisherfolks can capitalize in engaging into community-based enterprise.

Since agriculture encompasses an enormous role in ensuring a sustainable development (Asence, 2016) and it accounted for 32% of the full global employment (ILO, 2014). Moreover, agriculture is the main occupational sector within the developing countries, and with the poorest countries being those with mostly agricultural economies and societies (FAO). Agriculture had been the backbone of many people living in countryside areas worldwide and investment within the agricultural sector has been revealed to be effective means to spice up groups out of poverty (Bennell, 2010; Diao & Hazel, & Thurlow, 2010). Hence, the challenge for farmers and fisherfolks is to level-up farming to agribusiness, upgrade into modern farming and join force to develop their community-based enterprise.

Entrepreneurial competency is needed when farmers and fisherfolks will take advantage of the opportunities of agribusiness, upgrade into modern farming and develop their community-based enterprise and it incorporates a significant part in considering such practical approaches with the environment. Thus, the role of an entrepreneur's competency is a vital factor in attaining quality in performance to ensure sustainable growth and success of a venture amidst a competitive business environment. The worth of entrepreneurial competency has amplified during the previous decades due to the deliberate role played by the human factor, mostly the entrepreneur of a business enterprise (Kochadai, 2011) and therefore the characteristics of entrepreneurship and entrepreneurial competence become an inseparable unity to enhance the performance of the breeder's business (Mubarak, et.al, 2019). On the contrary, entrepreneurship could be a new situation for several farmers (Bergevoet et al. 2005 in Arellano & Delos Reyes, 2019). Boosting entrepreneurial qualities and competencies is a vital skill in shaping farmer's entrepreneurial intentions (Mubarak, et.al, 2019).

Entrepreneurship is defined as "the usage of reserved inventiveness to convert a simple farming concept into a practical new farming enterprise. It could also involve diversifying an existing farming enterprise and inspiring it to grow" (Kahan, 2013, Arellano & Delos Reyes, 2019) through promoting community-based enterprise that offers a hopeful method towards poverty reduction in underprivileged communities to the limited extent (Parwez, 2017) just like the Philippines where poverty is still a major concern particularly in the agricultural sector.

In a global perspective, the Philippine with its rich natural agricultural resources have a large potential to contribute to

the global food security and tourism industry through promoting entrepreneurship and community-based enterprise development for farmers and fisherfolks. In support to promote entrepreneurship to farming, the Philippines government crafted RA 11321 or the “Sagip Saka Act” instituting the farmers and fisher folk enterprise program of the department of agriculture which aims to ensure sustainability of agriculture and fishing enterprise. The Philippine agriculture will continue to progress as it understands that an entrepreneurial and innovative environment begins with the people who work in the farm.

Farming and fishing are among the highest contributing sectors within the Philippine economy and society. In a recent study of Baticados (2018), different entrepreneurial activities associated with agricultural-related trade and lower-end services in rural areas and the urban poor as well as the businesses of the non-poor contributed to the 15% drop in poverty in the country. Forming farmers and fisherfolks into a community-based enterprise offers a capable approach towards poverty reduction (Parwez, 2017). As Filipino farmers and fisherfolks continue to shift to a market-centered orientation from its traditional production orientation, it can expect a robust increase in our economic sector by at least 38 to 40% compared to a 9 to 11% GDP if the focus is on agricultural production alone.

However, entrepreneurship and community-based enterprise is not generally practiced or even stimulated in countryside or rural areas and has remained relatively little emphasis in either agricultural or business literature. Experimental research on rural/countryside entrepreneurship is moderately rare and this model remains basically unfamiliar, and even unusual are the ones involving it to technical efficiency (Arellano & Delos Reyes, 2019). A study, therefore, on the entrepreneurial competencies of farmers and fisherfolks towards development of community-based enterprise is vital. Aside from entrepreneurial competency, leadership is the utmost critical element for the achievement of community-based enterprises (Anderson et al. 2006). To achieve business success in establishing community-based enterprise, a farmer and fisherfolks needs to make strategic, as well as innovative, decisions concerning all levels of the business and improving competencies can be a way to improve entrepreneurial success (Bergevoet. et al. 2005). Therefore, farmers and fisherfolks rely on entrepreneurial competencies and characteristics to enable them to become more successful in their community-based enterprise.

II. LITERATURE REVIEW

2.1 Entrepreneurial Competency

Man, Lau, and Chan (2002); Phelan (2014) stated that entrepreneurial competencies can be referred to as actions like assessing information, recognizing customer needs, scanning the environment, articulating strategies, carrying networks together, enchanting initiative, presenting diversity, and collaboration. Likewise, entrepreneurial competency has a critical role in taking such proactive approaches with the

environment. Thus, the role of an entrepreneur’s competency is vastly critical aspect in realizing excellence in performance to guarantee sustainable development and success of an enterprise amidst a viable business environment (Kochadai 2011).

Successful entrepreneurs are recognized to have firm entrepreneurial skills that embraces the skill to solve business problems and to familiarize to the changing environment (Nieman et al, 2004). Entrepreneurial competence can be referred to a kind of human investment that encompassed skills that are vital for the awareness of their capacities (Mujuru, 2014). Also, Zapata and Bruto (2017) stated that competencies are needed to build and improve the company’s performance in the future or as a foundation for the company’s competitiveness in the long term similar to farmers and fisherfolks community-based enterprise.

According to Herliana, et.al, (2019) the growth of entrepreneurial skills is desired for farmers to advance their business to flourish just like the agribusiness situation. To realize business success, a farmer requires to develop a planned, be innovative, makes 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 to the financial performance of a business. Previous research has showed 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).

There are 10 entrepreneurial competencies identified by Man (2001) stated by (Nieuwoudt, 2016). These competencies are: 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. 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. For instance, McElwee (2008) recommends that networking, innovation, risk taking, team working, reflection, leadership and business monitoring are essential to emerging and cultivating the farm business. Within the business, 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.

Thus, what farmers need right now is to develop new skills and competencies to remain competitive. As 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 own competence level, (2) recognizing the importance of detailed competencies to business success, and (3) providing succeeding direction and guidance in competence and skill expansion. Entrepreneurial intentions of farmers are affected by establishing entrepreneurial characteristics and competencies (Mubarak, et.al, 2019).

2.2 Community Based Enterprise

Community-based enterprises emerge in both developing and the developed worlds in its different locales, including villages, regions or suburbs. To promote entrepreneurship to the farmers and fisherfolks and in the rural areas, community-based enterprise was introduced to them. According to Peredo & Chrisman (2006), 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).

According to Lawson, and Kearns, (2010) critical analysis advocates that community engagement generates a sense of responsibilities for communities in terms of taking care of their surroundings. Likewise, the benefits of community participation in a society are very extensive; some would say it is very comprehensive. Succeeding decades of specialized or state-led interventions, have seen, that community has been a significant knowledge resource, if seized, will lead to improved and accountable services. Several studies (Rydin, and Pennington 2000; Maguire, and Truscott 2006) states that community engagement aspect is based upon the modest principle that the community knows best about their own problems, thus permitting policy makers to act accordingly. Acharya, K & Acharya S, (2007) state that the accessibility of local market, skills and local raw materials joint with a strong institutional support are keys for the successful community-based enterprises.

Peredo and Chrisman (2006) theoretically derive four factors that trigger the emergence of collective entrepreneurial action, namely: the presence of multi-faceted social, cultural, ecological, political and economic problems; a tradition of collective action; a deposit of social capital and social networks; and a medium community size that ensures a resource base of a certain size while, at the same time,

securing the strength of the social bonds and networks between the local inhabitants. 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 serves as a clear starting point through providing an objective that describe how the enterprise creation process unfold over time, however it still needs an understanding of the dynamics that trigger and fuel this process (Hertel & Belz, 2017).

There is need to improve the entrepreneurial competency of farmers and fisherfolks having presented the significant of entrepreneurial competency for the success and sustainability of the community-based enterprise. However, Lumpkin et al., (2018) state that researchers and practitioners approve on the available potential of community-based enterprises 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 on 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 need to take into account.

III. METHODOLOGY

The study utilized a descriptive quantitative research design to determine the level of personal entrepreneurial competencies of the farmers and fisherfolks. A descriptive study is more structured and exploratory thus providing an accurate and valid representation of people, situations or events and information on the current state of a phenomenon (Rahi, 2017) which is appropriate to this study. It will assess the personal entrepreneurial competencies using Personal Entrepreneurial Competencies (PEC) Questionnaire with fifty-five (55) questions through Likert scale. Moreover, this will also use qualitative research design through an unstructured interview with the participants.

This study was conducted in the town of San Jose and Sagnay, Camarines Sur. The populations of the study are the farmers and fisherfolks in selected areas in San Jose and Sagnay, Camarines Sur. Using sloven formula a sample of two hundred six (206) farmers and one hundred (100) fisherfolks

was identified as respondent of this study. One of the criteria in choosing the respondents of the study was the farmers and fisherfolks should have interest in engaging in enterprise development.

Data were collected through a survey with a structured questionnaire, interview, and observation. It uses a five Likert-type test based on scale from “always to never” to measure the level of personal entrepreneurial competencies using Personal Entrepreneurial Competencies (PEC) questionnaire of farmers and fisherfolks respondent.

Oral consent was provided by the farmers and fisherfolks respondent to participate in this study after a short orientation of the research objectives. Confidentiality was assured on their responses and the voluntary nature of the interviews.

The research questionnaire used in this study was developed based on published literatures on entrepreneurial competency. The first part of the questionnaire was the demographic profile of the respondent that includes sex, age, education 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, committed to work contract, demand for quality/efficiency, risk-taking, goal-setting, information seeking, systematic planning and monitoring, persuasion and networking, and self-confidence (Diaz et al. 1997 cited by Depositorio, 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*.

A descriptive of the frequency and percentage for the demographic, weighted mean for the level of personal entrepreneurial competency, Pearson Correlation for the significant relation, T-test Independent and One-Factor ANOVA one way for the differentiation was provided. Descriptive statistics helped to describe the personal entrepreneurial competency of farmers and fisherfolks. The descriptive statistics were initially obtained and analyzed to understand 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). A Pearson’s correlation analysis was also conducted. With the 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 the 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.

IV. RESULT and DISCUSSION

4.1 Demographic Profile of Respondent

The profile of the respondents of this study is reflected in

table 1. The farmers and fisherfolks are the two groups’ respondents of this study. For the farmers respondent there were 70% women and 30% men while for fisherfolks respondent 68% men and 32% women. It was observed that in farming women are now participating while in fishing this is still dominated by men. However, women should be part of the decision making in farming and fishing as they are more marginalized due to tradition/ culture. In terms of age, both farmers and fisherfolks respondent majority are from age 41 and above. This indicate that farmers and fisherfolks are getting aged and few of the young generation are interested in farming and fishing. In general, youths aren’t that interested in agriculture. Most have preconception that agriculture is always equated to farming. Several studies stated that youths’ first impression about a career is important. Thus, entrepreneurship should leave a positive impression on them. (Heinart & Roberts, 2016).

In terms of educational attainment, majority of farmers have reached college level to graduate while the majority of the fisherfolks have reached high school level to high school graduate. With regards to business experience both farmers and fisherfolks majority has business experience.

Table 1 – Profile of the Respondent

Demographic Characteristic	Farmers		Fisherfolks	
	n=(206)	%	n=(100)	%
Gender				
Male	62	30%	68	68%
Female	144	70%	32	32%
Age				
18-30	24	12%	14	14%
31-40	34	16%	19	19%
41-50	52	25%	26	26%
51-60	45	22%	20	20%
61 & above	51	25%	21	21%
Educational Attainment				
College Graduate	33	16%	3	3%
College level	39	20%	10	10%
High School Graduate	34	17%	19	19%
High School Level	37	18%	26	26%
Elementary Graduate	23	11%	24	24%
Elementary Level	40	19%	18	18%
Business Experience				
With Business Experience	144	70%	94	94%
Without Business Experience	62	30%	6	6%

B. Entrepreneurial Competency of Farmers and Fisherfolks

Table 2 indicates the farmer’s and fisherfolks personal

entrepreneurial competency using weighted mean. That nine (9) out of 10 indicators of the personal entrepreneurial competency the farmers have moderate competency and one (1) fair competency. While fisherfolks reflects eight (8) out ten (10) indicators of the personal entrepreneurial competency they have moderate competency and two (2) fair competencies.

Farmers has moderate competency for opportunity seeking, persistence, commitment to work, demand for quality, risk taking, information seeking, systematic planning, persuasion and networking and self-confidence. They have fair competency in terms goal setting.

While fisherfolks has moderate competency for opportunity seeking, commitment to work, demand for quality, risk taking, information seeking, systematic planning, persuasion and networking and self-confidence. And they have fair competency in terms of persistence and goal setting.

Overall, it was observed that both farmers and fisherfolks have moderate competency to most of the indicators of personal entrepreneurial competency. This is reason why there is a need for trainings to improve their personal entrepreneurial competency from moderate to very strong to help them become more entrepreneurial and improve their livelihood. Likewise, improving the entrepreneurial competency of farmers and fisherfolks would be beneficial 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”.

Furthermore, it was noted that both farmers and fisherfolks rank 1st risk taking in their personal entrepreneurial competency and goal setting as the least. This indicate that farmers and fisherfolks take risk without setting goal on what they want to accomplish. On the contrary, risk seeking is rarely the case among farmers (Quilloy 2015) and “traditional farmers are rational but risk-averse (reluctant to take risks) (Norton, et al. 2014 in Arellano & Delos Reyes, 2019).” This also explain why farmers has least personal entrepreneurial competency for goal setting. Since risk averse pertains to someone who does not like the possibility for an undesirable event to occur. They are also, generally (40%) weak goal-setters. This might have been their response to the climatic conditions in the area which bring flooding, intense rain, or drought resulting to significant production losses (Arellano & Delos Reyes, 2019).

Table 2 – Entrepreneurial Competency of Farmers and Fisherfolks

Personal Entrepreneurial Competency	Farmers	Interpretation	Rank	Fisherfolks	Interpretation	Rank
Opportunity Seeking	10.7	Moderate	3	10.09	Moderate	4

Persistence	9.8	Moderate	9	9.37	Fair	9
Commitment to Work	10.56	Moderate	4	10.57	Moderate	2
Demand for Quality	10.03	Moderate	8	9.77	Moderate	7
Risk taking	13.68	Moderate	1	13.14	Moderate	1
Goal Setting	9.21	Fair	10	9.18	Fair	10
Information Seeking	10.28	Moderate	7	10.15	Moderate	3
Systematic planning	10.35	Moderate	6	10.07	Moderate	5
Persuasion and Networking	10.51	Moderate	5	9.83	Moderate	8
Self-confidence	10.88	Moderate	2	10.00	Moderate	6

C. Correlation of Age of Farmers and Fisher folks to Entrepreneurial Competency

C.1. Relationship of Age with Entrepreneurial Competencies of Farmers

Results of Pearson correlation reflected in table 3.1 revealed 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 ($r=-0.198, p=0.004$). Also, 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 noted that the positive relationship obtained implies that as farmers aged their competency in risk taking, self-confidence, information seeking, systematic planning, and persuasion & networking increases.

It was observed that as farmers aged, they are more risk taking and advance their self-confidence since they already gain more experience in farming and consider it as a business and explore new ways and technology on how they can improve their farming, it was noted that this contributes to their entrepreneurial competency. Likewise, it was observed as farmers aged 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. Also, it was noticed that they are systematic in planning when engaging to their farming activities they learned it through several years in farming. This is like 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)

C.2 Relationship of Age with Entrepreneurial Competencies of Fisherfolks

Results of Pearson correlation shows in table 3.2 revealed significant weak relationship between age and self-confidence ($r=-0.242, p=0.015$). It was noted that a negative

weak relationship exists which implies that as the fisherfolk aged, their competency in self-confidence decreases. There is no significant relationship between age and the rest of the indicators of personal entrepreneurial competencies.

It was observed that as fisherfolks aged their self-confidence decreases since their physical strength in fishing is deteriorating and they are worried for their livelihood once they could not do anymore fishing and since this is the only livelihood that they know. And it was noted that as fisherfolks aged their entrepreneurial competency did not change or improve since fisherfolks only focus on fishing or if they are selling, they just sell without adding value to the fish that they caught and sell. Therefore, it needs to improve the personal entrepreneurial competency of fisherfolks across ages.

Table 3.1 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

Table 3.2 Correlation between Age and Entrepreneurship Competencies of Fisherfolks

Relationship of Age with	Correlation Coefficient	P-value
Opportunity Seeking	-0.130	0.196
Persistence	0.009	0.930
Commitment to Work	-0.167	0.096
Demand for Quality	-0.070	0.488
Risk taking	-0.058	0.565
Goal Setting	0.003	0.975
Information Seeking	-0.053	0.599
Systematic planning	-0.184	0.067
Persuasion and Networking	0.141	0.161
Self-confidence	-0.242	0.015

D. Differences of Entrepreneurial Competency of Farmers and Fisher folks in terms of Gender, Business Experience and Educational Attainment.

D.1.1 Differences on Entrepreneurship Competencies of

Farmers According to Gender

Table 4.1 reflects the results of T-test independent show that among the 10 indicators of entrepreneurship competency only Persuasion & Networking (mean_{female} = 10.25, mean_{male} = 10.98, p=0.046) revealed significant difference between female and male respectively. It was noted that male has higher competency than female in terms of Persuasion & Networking. The rest of the indicators show no significant differences under gender.

It was observed that male farmers are more persuasive than their female counterpart. It was noted that male farmers are the one who look for networks and linkages on how they can improve their farming activities and they are also the one who join different organization. And that is the reason why male farmers are more persuasive than women farmers. Moreover, most of the women farmer are also doing household chores and they have limited time to associate or join an organization/association and lobby to different stakeholders that can help them in farming and their livelihood.

Table 4.1 Entrepreneurial Competencies of Farmers according to Gender

Indicators	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

D.1.2 Differences on Entrepreneurship Competencies of Fisherfolks According to Gender

Table 4.2 reflects the results of T-test independent that show no significant differences on personal entrepreneurship competency between male and female fisherfolks along the 10 indicators. It was noticed that personal entrepreneurial competency of both male and female fisherfolks is not affected by their gender. That regardless of the gender of fisherfolks their personal entrepreneurial competencies have no difference. It was noticed that both male and female fisherfolks have the same style of doing their fishing or selling fish activities. Like if they are selling fish, both just sell the fish without adding value. It was further noticed that when there is great catch fish, they just sell it without considering the supply and demand theory, adding value or applying strategy where they can minimize the lowering of price due to the increase of supply. Given this observation, fisherfolks need to improve their personal entrepreneurial competency to level-up

or upgrade their strategy in their fishing activities.

Table 4.2 Entrepreneurial Competencies of Fisherfolks according to Gender

Indicators	Mean Score		P-value
	Female	Male	
Opportunity Seeking	10.44	9.93	0.275
Persistence	9.44	9.34	0.759
Commitment to Work	10.78	10.47	0.324
Demand for Quality	9.91	9.71	0.623
Risk taking	13.34	13.04	0.613
Goal Setting	8.81	9.35	0.173
Information Seeking	10.09	10.18	0.837
Systematic planning	10.28	9.97	0.421
Persuasion and Networking	9.53	9.97	0.272
Self-confidence	10.06	9.97	0.806

D.2.1 Differences on Entrepreneurship Competencies of Farmers According to Business Experience

Table 5.1 shows the results of T-test independent that among the 10 indicators of personal entrepreneurial competency only Risk Taking (mean_{no}= 12.44, mean_{yes}=14.22, p=0.000) revealed significant difference between with farmers with business experience and with no business experience. It was noted that farmers with business experience have higher competency with farmers without business experience in terms of risk taking. The rest of the indicators show no significant differences under business experience.

It was noticed that farmers with business experience are more risk taker as compared to those farmers without business experience. It was observed that farmers with business experience would usually invest, adopt & used the technology upgrading their farming business since they are aware that they need to take risk and embrace innovation. It was noted that farmers without business experience are hesitance in taking risk to improve their farming engagement since their experience is limited only to farming and have not yet shift, their mindset into farming business.

Table 5.1 Entrepreneurial Competencies of Farmers according to Business Experience

Indicators	Mean Score		P-value
	No	Yes	
Opportunity Seeking	10.17	10.09	0.903
Persistence	9.17	9.38	0.560
Commitment to Work	10.83	10.55	0.695
Demand for Quality	10.00	9.76	0.700
Risk taking	12.50	13.18	0.474
Goal Setting	8.83	9.20	0.736

Information Seeking	9.83	10.17	0.614
Systematic planning	10.00	10.07	0.921
Persuasion and Networking	9.67	9.84	0.724
Self-confidence	9.83	10.01	0.836

D.2.2 Differences on Entrepreneurship

Competencies of Fisherfolks According to Business Experience

Table 5.2 indicates the results of T-test independent which shows that there is no significant differences on personal entrepreneurial competency between those fisherfolks with and without business experience along the 10 indicators. It was observed that the entrepreneurial competency of fisherfolks with business experience and without business experience are just the same.

Since those fisherfolks with business experience focuses only on selling without adding value to the fish that they are selling. Their business experience is limited to trading of fish, and it was observed that fisherfolks goal is also limited to selling the fish that they have within the day and augment to their daily needs. This could be the reason why the personal entrepreneurial competency of fisherfolks with business experience is just the same with those without business experience since there is no innovation on how the fisherfolks trade.

Table 5.2 Entrepreneurial Competencies of Fisherfolks according to Business Experience

Indicators	Mean Score		P-value
	No	Yes	
Opportunity Seeking	10.26	11.90	0.003
Persistence	9.48	9.94	0.080
Commitment to Work	10.60	10.64	0.807
Demand for Quality	9.95	10.06	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

D.3.1 Differences on Entrepreneurship Competencies of Farmers According to Educational Attainment

Results of One-factor ANOVA one-way is reflected in table 6.1 which shows significant differences on personal entrepreneurial competencies along 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 graduate (12.94). However, there is a significant difference among high school level (14.19) and college level which is also the lowest competency (12.82). It was noticed that farmers who are elementary graduate are risk taker since they consider limited factors unlike the college level, they are 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 seeking 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 has 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 graduate 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 graduate (10.50).

Table 6.1 Entrepreneurial Competencies of Farmers according to Educational Attainment

Entrepreneurial Competency (Indicator)	Educational Attainment						P-value
	College Graduate	College level	Elementary Graduate	Elementary Level	High School Graduate	High School 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

Table 6.2 Entrepreneurial Competencies of Fisherfolks according to Educational Attainment

Entrepreneurial Competency (Indicator)	Educational Attainment						P-value
	College Graduate	College level	Elementary Graduate	Elementary Level	HighSchool Graduate	HighSchool Level	
Opportunity Seeking	9.33	10.70	9.32	9.81	10.21	10.94	0.174
Persistence	7.33	9.50	8.84	9.08	9.67	10.22	0.025
Commitment To Work	11.33	10.40	10.21	10.31	10.88	10.89	0.506
Demand for Quality	9.33	10.00	9.53	9.69	9.83	10.00	0.957
Risk Taking	11.33	13.90	13.47	12.73	12.75	13.78	0.463
Goal Setting	9.67	8.90	8.68	9.08	9.33	9.72	0.660
Information Seeking	10.33	9.50	9.90	10.11	9.88	11.17	0.103
Systematic planning	10.33	10.30	10.58	9.81	9.88	10.00	0.806
Persuasion & Networking	10.33	9.90	9.42	9.15	10.17	10.67	0.178
Self-confidence	10.67	9.50	9.58	10.23	9.96	10.33	0.642

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 in farming so their experience provided them their competency for self-confidence.

D.3.2 Differences on Entrepreneurship Competencies of Fisherfolks According to Educational Attainment

Results of One-factor ANOVA one-way was reflected in table 6.2 which shows significant differences on personal entrepreneurial competencies along educational attainment under persistence ($p = 0.025$). Post Hoc analysis shows high school level has the highest competency (10.22). There is no significant difference between high school graduate (9.67) and college level (9.50), but they are higher than elementary level (9.08) and elementary graduate (8.84). The lowest competency is observed among college graduate (7.33). The rest of the indicators show no significant differences among educational attainment.

It was observed that only persistence competency has significant difference along educational attainment. The level of persistency of fisherfolks varied on their educational attainment. High school level fisherfolks are more persistent and elementary graduate are least. It was noted that the high school level fisherfolks are persistent to improve and level-up their fishing activity or trading despite their lack of educational attainment.

E. Framework in implementing community-based enterprise for farmers and fisherfolks.

In Figure 1 it reflects the framework in implementing the community-based enterprise for farmers and fisherfolks. First, it will start from assessing and identifying the level of personal entrepreneurial competency of the farmers and fisherfolks who are the main actor for the community-based enterprise. *Second*, it will design the training program that will enhance the level of personal entrepreneurial competency of farmers & fisherfolks to help them 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 use 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 and fisherfolks. It will have two phases of trainings: phase 1 includes training on orientation to entrepreneurship; basic financial literacy; and aspiring entrepreneurs.

While phase 2 includes trainings about small business owner; financial education for business planning; orientation to working capital and microfinance; and tool for business plan development. However, these two phases of training will

have separate implementation. *Third*, organizing the farmers and fisherfolks into a community-based enterprise and providing capacity training for leadership and management of their organization. *Four*, implementation of phase 2 of the training for community-based enterprise 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 and fisherfolks.

Figure 1 Framework for Implementing Community-Based Enterprise

V. CONCLUSION

Assessing the level of personal entrepreneurial competency of farmers and fisherfolks will help in the development of community based-enterprise for farmers and fisherfolks. Also, in the implementation of the RA 11321 or the "Sagip Saka Act" an act instituting the farmers and fisher folk enterprise program of the department of agriculture which aims to ensure sustainability of agriculture and fishing enterprise.

Farmers and fisherfolks have an overall moderate competency to the ten (10) indicators of personal entrepreneurial competency such as opportunity seeking, persistence, commitment to work, demand for quality, risk taking, goal setting, information seeking, systematic planning, persuasion & networking, and self-confidence. It was noted that both farmers and fisherfolks rank first the risk taking in their entrepreneurial competency and goal setting as the least. It shows that farmers entrepreneurial competency for self-confidence increases as they aged while for fisherfolks it declines; male farmers are more persuasive than their counterpart, farmers with business experience has higher competency for opportunity seeking and risk taking than those without business experience, and for farmers personal entrepreneurial competency for risk taking; information seeking; persuasion and networking; and self-

confidence varied in term of their educational attainment. While for fisherfolks shows no difference on entrepreneurial competency for both men and women, with or without business experience, and only the competency for persistence vary in terms of their educational attainment.

Therefore, with the current level of personal entrepreneurial competency of farmers and fisherfolks it would need enhancement trainings for them to improve their competency from moderate to very strong to help them become more entrepreneurial and improve their livelihood. Likewise, before the farmers and fisherfolks engage in community-based enterprise development/engagement they must be able to acquire first the necessary competency just like the ten (10) indicators of personal entrepreneurial competency. Farmers and fisherfolks would need to undergo training for community-based enterprise development and capacity training for leadership and management of enterprise.

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