



Assessing the success of farmers' associations: the case of Baybay City, Leyte, Philippines

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ABSTRACT

This research study assessed the internal functions and external factors affecting the success of farmers' associations (FAs) in Baybay City, Leyte, Philippines which were registered as vegetable producers. A total of twenty (20) FA officers, 68 FA members and one (1) city agriculture technician comprised the respondents of the study. Two survey methods were used, namely: the Key Informants Interview (KII) to gather data related to external factors with city agriculture technician and a structured questionnaire to gather internal factor-related data with FA members and FA officers. Mean, standard deviation, and percentages were used to describe the internal and external factors affecting the FAs. Correlation analysis was also applied to determine the relationship of the internal factors and external factors to the success of FAs. Results showed that 53% of FAs were 3 to 4 years in existence with an average of 29 members; 68% of them were women. FA members indicated high satisfaction rate on FAs' functions for provision of technical information, and provision of inputs. Results revealed that FAs' equity growth rate increased from 32.92% in 2014-2015 to 81.65% in 2017-2018. Findings of the study revealed a significant relationship between internal factors namely leadership, building capacities, cooperation of other organizations and FAs' success of FAs. The external factors namely political factors (government programs) and economic factors (input costs) were found to have significant effect on FAs' success. Hence, human resource mobilization skill needs to be additionally built up in order to stimulate more participation and responsibility from farmers.

KEYWORDS: *Farmers' associations; Baybay City; vegetable farmers; internal functions; external factors*

1 INTRODUCTION

Agriculture sector is the backbone of the Philippine economy which provides the food to every Filipino.

According to Jamora *et al.* (2019) and Tobias (2019), food sufficiency and improvement of agricultural policies are main focus of the Philippine government. Agriculture shares 8.5 % of the GDP and 25% of the total employment in the Philippines (Philippine Statistics Authority [PSA], 2017). The current economy is dominantly contributed by services (59.5% of GDP) and industry (30.8% of GDP) (PSA, 2017). About 21.6% of the population in the country is living below the national poverty line and most of them are farmers in rural areas. However, through farmers, improvement in agriculture can significantly accelerate poverty reduction in the Philippines (Feeny & Vuong, 2017).

In terms of development and movement of resources in the Philippines out of the agricultural sector into the industrial sector grow richer due to the increase of consumption for manufacturing of goods (Bayudan-Dacuycuy & Serafica, 2019). However, the development in the country does not conform to broad configurations rather it is characterized by premature aging with an agricultural sector that has a declining value added to the country's GDP (Fabella & Fabella, 2012). Hence, the Philippines being an agricultural country need to develop the agriculture sector to be able to attain food sufficiency, uplift the rural community, and increase the income of the farmers (Sanchez, 2015). Seemingly, agricultural sector has been facing persistent challenges such as lack of important provisions in the countryside, lack of programs that will link agriculture with the industry, and insufficient activities aimed to vigorously transfer advanced production, post-harvest, and processing technologies to the stakeholders, poor management hazards, and burden of informal road passage and market access (Sanchez, 2015; Andriesse, 2018). Unless institutional arrangements refine collective action by smallholders are undertaken, small farmers cannot lever up their productivity and bargaining power vis-a-vis external factors in an effectual manner (Sibiko *et al.*, 2018; Steup *et al.*, 2018). Ecclesiastes 4:9-10 states that, "two are better than one, because they have a good return of their work. If one falls down, his friends can help him up. But pity the man who falls and has no one to help him up!" The verse

underscore that development could be meaningfully attained through people in organizations. Local organizations are channels to make wishes and needs of rural community known to the local authorities for planning and mobilizing local resources (Crowley *et al.*, 2005; Schmidt *et al.*, 2015). Formation of Farmers' Associations (FAs) play significant role in agricultural development (Hiatt & Carlos, 2019). These organizations are responsive in allocation and distribution of inputs such as fertilizers, pesticides, credit among their members, training, and marketing their produce.

The effectiveness of FAs as instrument for farmers' development is contingent on the success of these associations. Successful FAs were influenced by two interrelated factors: internal organizational factors and external environmental factors (Asai *et al.*, 2018; Steup *et al.*, 2018; Kamaruddin *et al.*, 2013). These two factors attributing success of FAs are not uniform, dependent on the contexts and categories of individual FAs. Internal organizational factors cover the behaviour, practices and capacity of individual members and the organization as a whole. The external factors are many, some of which are political, regulatory, resource, economic and technological in nature. Hence, the general objective of this study was to assess the internal and external factors affecting the success of farmers' associations (FAs) in Baybay City, Leyte, Philippines. Recognizing the importance of successful formation and operation of FAs, thus, more specifically, the study aimed to: (1) draw up a profile of the FAs in Baybay City, Leyte; (2) investigate the level of satisfaction of members towards FAs' functions/services; (3) investigate the growth of equity and membership of the FAs involved; (4) determine the relationship of the internal factors to the success of the FAs; (5) determine the relationship of the external factors to the success of the FAs; and (6) cite some recommendations to improve the growth and performance of FAs in Baybay City, Leyte, Philippines.

2 MATERIALS AND METHODS

Research Design

The study used the Key Informants Interview (KII) (Marshall, 1996) and descriptive survey design to investigate and assess the internal and external factors affecting the success of FAs in Baybay City, Leyte. A Key Informants Interview (KII) is suitable and useful to gather first hand data directly from the officers, FAs members and supporting agencies (Marshall, 1996). A descriptive survey method is suitable and useful as the study sought to establish the internal functions and external relations affecting the success of FAs in Baybay City, Leyte.

Sampling Procedure and Ethical Procedure

The officers, FA members and external supporting agencies of the Farmers' Associations (FAs) in Baybay City were the target population and respondents of this study. A list of FAs was obtained from the City Agriculture Office of Baybay City, Leyte. Simple random sampling was applied to select 4 out of 6 registered vegetable producers FAs. Based from the list given by the City Agriculture's Office, there were 82 FA members and 21 FA officers from the 4 FAs selected. Simple random sampling was applied to select the respondents. Using the Slovin's sample size formula, the researcher gathered data from 68 FA members and 20 FA officers. The Slovin's sample size calculation is shown below.

For FA members,

$$n = \frac{N}{1+(N \times e^2)} = \frac{82}{1+(82 \times 0.05^2)} = 68 \text{ respondents}$$

For FA officers,

$$n = \frac{N}{1+(N \times e^2)} = \frac{21}{1+(21 \times 0.05^2)} = 20 \text{ respondents}$$

Where:

N = Population size
 e = margin of error, 5%

Key informants interview (KII) and survey method was conducted with 20 FA officers and 68 FA members. Interviews were also held with a city agriculture officer (Table 1).

Participants	N	n	Percent (%)
1. FA officers	21	20	95.24
2. FA members/farmers	82	68	82.93
3. City Agriculture Officer	1	1	100.00
Total	104	89	85.58

Table 1. Participants of the study

Prior to the conduct of the survey, the permission of the head of City Agriculture Office of Baybay City, Leyte was asked through a formal letter. In this study, ethical procedure was considered; hence, the involvement of participants was voluntary. In addition, participants were assured that the data gathered from them will be treated with confidentiality and solely used for research purposes only.

Data Collection

This study examined both external and internal

factors that attributed to the success of FAs under study. To understand the external factors, the study analysed legal and regulatory support and operating assistance provided by relevant agencies such Department of Agriculture, Barangay Council and Non-Government Organizations (NGOs) working with these FAs. The internal organizational factors were discussed from the standpoints of FA members and management and supporting agencies. Finally, the success indicators were assessed based on the perspectives of FA members and management. The interviews with FA members specifically aimed to understand their personal and organizational endowments, their participation in the FA, and their assessment of functions/services delivered by the FA. The interviews with FA officers sought to comprehend functions/services of their FA, internal workings of their FA, their organizational capacity, and their organizational relationships with other agencies. To complement the knowledge gained from FA members and management, the interviews with supporting agencies examined into how they assisted in establishment of these FAs, their assessment of organizational strengths and weaknesses of these FAs, and what assistance was provided to refine the organizational capacity of these FAs.

Data Analysis

The data collected were encoded and analysed through the Statistical Package for Social Sciences (SPSS) software. Data were analysed using percentages, mean and standard deviation, and correlation analysis. Descriptive statistics was used to describe some internal organizational factors of FAs such as membership, size and structure, leadership and internal rules or by- laws of FAs in Baybay City. Spearman rho correlation analysis was also used to establish the existence, nature and strength of the relationships of the internal factors and external factors to FAs success indicators

3 RESULTS AND DISCUSSIONS

Profile of Vegetable Producer-Farmers' Associations

More than half (53%) of FAs in Baybay City were 3 to 4 years in operations (Table 2). The number of members ranged from 20 to 30 with an average number of 29 members. Almost half (41%) of the FAs started with a capital that ranged from 50,000 pesos to 100,000 pesos. Concerning capital structure, 60% of them were supported by the local government of Baybay City, specifically the City Agriculture's Office. All FAs under study were engaged in vegetable production. Moreover, majority of them (74%) were engaged in 2 to 3 other business activities such as poultry production, swine fattening and fishpond. All of the FAs were registered in

the City Agriculture's Office. In the study of Anwarudin and Maryani (2017), in order to improve and alleviate the poverty in rural areas, the farmers must participate an association to realize the farmer's self-reliance and support their agricultural inputs.

Table 2. Characteristics of Vegetable Producer-Farmers' Associations in Baybay City, Leyte.

CHARACTERISTICS	PERCENT (%)
Number of years of existence	
1 to 2 years	4
2 to 3 years	27
3 to 4 years	53
4 to 5 years	8
5 years and above	8
Number of Members	
20 to 30 members	49
31 to 40 members	20
41 to 50 members	18
51 to 60 members	11
Above 60 members	2
Mean = 29 members	
Start-up Capital (Peso)	
50,000 and below	37
50,000 to 100,000	41
100,001 to 500,000	22
500,000 to 1,000,000	0
1,000,001 and above	0
Capital Structure	
Membership Funds	35
Micro- financing	2
Local Government support	60
Private Grants/ Donations	3
Registration	
Registered	100
Unregistered	0
Number project/s engaged (e.g. vegetable production, swine production, fish ponds, poultry)*	
Only one project	13
2 to 3 projects	74
4 to 5 projects	8
More than 5 projects	5

*Multiple responses

Membership

Forty-four percent (44%) of the FA members were in the age group of 51 to 60 years old (Table 3). Most of the respondents were women (68%) and the majority was married (63%). For educational attainment, half (51%) of the respondents were elementary level. Roman Catholic was the dominant religion (77%). The two most

common primary occupations of the respondents were farming (63%) and housekeeping (15%). Majority (62%) of them had a family size of 4 to 6 members. In terms of monthly income, 84% of the respondents revealed a monthly income of P10, 000 and below. According to Mojo and colleagues (2017), the main purpose of a membership in farmers’ association is to help farmers increase their income.

CHARACTERISTICS	PERCENT (%)
Age	
21 to 30 years	5
31 to 40 years old	12
41 to 50 years old	37
51 to 60 years old	44
61 years and above	2
Gender	
Male	32
Female	68
Civil Status	
Single	8
Married	63
Live- in	28
Separated	10
Widowed	5
Educational Level	
Elementary level	51
Elementary Graduate	26
High school level	13
High School Graduate	8
College level	1
College graduate	1
Post graduate (MS/PhD)	0
Religion	
Roman Catholic	77
Baptist	6
Born Again	12
Dating Daan	2
Iglesia ni Cristo	3
Primary Occupation	
Farmer	63
Fisherman	6
Motorecycle driver/potpot driver	8
Gov’t employee	2
Non- gov’t employee	4
Animal rearing	2
Housekeeping	15
Family Size	
1 to 3 members	24
4 to 6 members	62
7 to 9 members	11
10 and above	3
Monthly income level (Peso)/month	
10,000 and below	84

10,001 to 20, 000	12
20,001 to 30,000	2
30,001 and above	2

Table 3. Socio-demographic characteristics of FA members and officers, Baybay City, Leyte

Leadership

FAs in Baybay City, Leyte followed a management structure comprising of a president, vice president, secretary, treasurer, auditor, public information officers (3 persons), business manager, committee on membership, committee on education, and committee on ways and means. The president and officers were elected during the first General Assembly Meeting. Officers were quite well- known in their community and contained relatively better education endowments. FA officers rated ‘capacity to mobilize and manage human resources’ (\bar{x} = 2.80; s = 0.94) and ‘strategic capacity’ (\bar{x} = 2.95; s = 0.94) an organizational weakness (Table 4). On the other hand, they reported ‘capacity to negotiate and manage relationships with other stakeholders’ (\bar{x} = 4.45; s = 0.69), ‘capacity to organize and implement action’ (\bar{x} = 4.10; s = 0.718), and ‘financial and accounting capacity’ (\bar{x} = 4.00; s = 0.73) an organizational strength (Table 4). A good leadership in organization will lead to unlock the individual creativity and improve the productivity in farmers’ association (Houghton & DiLiello, 2010).

Table 4. Self-Evaluation of Organizational Capacity by FA Officers

CAPACITY ITEM	MEAN (\bar{x})	SD
	(s)	
1. Strategic capacity	2.95	0.94
2. Capacity to organize and implement action	4.10	0.72
3. Capacity to mobilize and manage human resources	2.80	0.89
4. Financial and accounting capacity	4.00	0.73
5. Capacity to negotiate and manage relationships with other stakeholders	4.45	0.69

Note: Values indicate average scores of capacity items measured by a 5-point (1-5) scale.

Table 5. Capacity Areas FA Members Wanted their FA Management to Improve (n = 68)

CAPACITY AREA*	Percent (%)
1. Management/leadership	78.25
2. Decision-making	45.78
3. Communication	31.87
4. Resource mobilization	73.78
5. Entrepreneurship/doing business	81.56

Note: Values indicate percentages of capacity areas wanted to be improved. *-multiple response

Table 5 shows that FA members indicated what capacity areas they wanted their FA officers to refine: entrepreneurship/doing business (81.56%), management/leadership (78.25%), and resource mobilization (73.78%).

Supporting agencies such as the City Agriculture’s Office of Baybay City, the Department of Labor and Employment (DOLE) Region VIII and the Department of Agriculture (DA) Region VIII offered management/leadership training to FA officers during the initial stage of formation. Their training later intensified in agriculture, financial planning and management, and entrepreneurship. FA officers indicated that they received training in the following major areas (Table 6): agricultural techniques (100%), entrepreneurship/doing business (92.49%), management/leadership (89.33%), financial planning and management (86.31%), and resource mobilization (83.51%).

Table 6. Training Areas Received by FA Officers (n = 20)

TRAINING AREA*	Percent (%)
1. Agricultural techniques	100.00
2. Entrepreneurship/doing business	92.49
3. Management/leadership	89.33
4. Financial planning and management	86.31
5. Resource mobilization	83.51
6. Natural resource management	48.56

Note: Values indicate percentages of received training areas. *-multiple response

Constitution and By-Laws

The pioneering FA members formulated the Constitution and By-Laws (CBL) of the association. The CBL details the objectives and functions of FA officers, membership requirements, and punishment for rule violation. Members understood they were obliged to attend meetings and contribute a certain agreed labor hours, to join trainings, and to partake in other activities of FA (such as gardening, feeding swine and chickens). Table 7 shows that members have high (\bar{x} =4.31, s =0.87) awareness level and high (\bar{x} =4.16, s =0.47) implementation of their CBL.

Table 7. Level of awareness and quality of implementation of FAs’ Internal Rules or By-Laws

INTERNAL RULES/ BY-LAWS	MEAN (\bar{x})	SD (s)
Awareness	4.31	0.87

Implementation 4.16 0.47

Note: Values indicate average scores of awareness and quality of implementation levels measured by a 5-point (1-5) scale

Building Capacities to Run the Organization

More than half (58.97%) of FA members said they attended training conducted by City Agriculture’s Office of Baybay and DOLE Region VIII and other agencies. Their training items mainly included (Table 8): agricultural techniques (100%), and entrepreneurship/doing business (58.78%). Training can enhance and expand farmers’ human capital and undertake initiatives to acquire knowledge from other sources which to sharpen decision-making abilities (Feder et al., 2004).

Table 8. Training Areas Received by FA Members (n = 68)

TRAINING AREA*	Percent (%)
1. Agricultural techniques	100.00
2. Entrepreneurship/doing business	58.78
3. Natural resource management	21.65
4. Democracy/human rights	25.34

Note: Values indicate percentages of received training areas. *-multiple response

Linkage with Other Organizations

DOLE Region VIII worked hand in hand with the City Agriculture’s Office of Baybay City to provide assistance for farmers through forming associations. Overall, FA officers mentioned good relationships and cooperation with the DOLE Region VIII (\bar{x} = 4.5; s = 0.69), City Government of Baybay (\bar{x} = 4.45; s = 0.51), barangay council (\bar{x} = 3.8; s = 0.77) and the DA Region VIII (\bar{x} =3.75; s = 0.72) (Table 9). They indicated less relationships with NGOs (\bar{x} = 3.3; s = 0.86) and INGOs (\bar{x} = 2.4; s = 0.5). This reflects a lack of contact between FAs and these agencies.

Table 9. Linkage with Other Organizations

ORGANIZATION	MEAN (\bar{x})	SD (s)
City Government of Baybay	4.45	0.51
Barangay Council	3.8	0.77
Department of Labor and Employment (DOLE) Region VIII	4.5	0.69
Department of Agriculture (DA) Region VIII	3.75	0.72

NGOs in the barangay	3.3	0.86
INGOs in the barangay	2.4	0.5

Note: Average scores of cooperation levels measured by a 5-point (1-5) scale.

Satisfaction of Members to FAs’ Functions

The main functions of FAs were: provision of technical information/advising (particularly on vegetable production, swine production, poultry and other related agriculture activities), and provision of financial means (i.e., loans and additional source of income through profit sharing).

Table 10 depicts FA members’ assessment of the characteristics (responsiveness, effectiveness, quality, and reliability) of their present FA functions. They offered high values to: provision of technical information/advising (responsiveness: \bar{x} = 4.85, s = 0.51;

Growth of Farmers’ Associations in Baybay City

Figure 2 illustrates the growth in terms of equity of FAs in Baybay City from year 2014 to 2018. The equity of FAs increased by Php 32, 146.02 in year 2014 to 2015 with a growth rate of 32.92%. This was the lowest growth rate in the 4 year period since most of the FAs were still operating a capital from membership fee. In year 2017 to 2018, FAs likewise experienced an increase in equity by Php 293,005.14 and showed the highest growth rate of 81.65%. This massive increase of equity growth was due to the financial support of DOLE R8 in giving FAs with piglets for fattening, and chicks for poultry. The City Agriculture’s Office also helped them financially in constructing their building for poultry and swine rising. It was observed that the growth rate was increasing from 32.92% in 2014 to 81.65% in 2018.

Table 10. Assessment of Characteristics of Current FA Functions by FA Members

FUNCTION	RESPONSIVENESS		EFFECTIVENESS		QUALITY		RELIABILITY	
	Mean (\bar{x})	SD (s)	Mean (\bar{x})	SD (s)	Mean (\bar{x})	SD (s)	Mean (\bar{x})	SD (s)
1. Provision of equipment for production	3.64	0.32	3.54	0.29	3.89	0.49	3.44	0.62
2. Provision of technical information/advising	4.85	0.51	4.73	0.36	4.65	0.63	4.72	0.45
3. Provision of inputs	4.67	0.41	4.38	0.32	4.85	0.61	4.63	0.48
4. Provision of access to market	NA	NA	NA	NA	NA	NA	NA	NA
5. Provision of storage and processing	NA	NA	NA	NA	NA	NA	NA	NA
6. Provision of financial means	4.07	0.44	4.18	0.38	4.26	0.43	4.19	0.26
7. Provision of subsidies	NA	NA	NA	NA	NA	NA	NA	NA
8. Natural resource management	3.26	0.47	3.18	0.51	3.95	0.39	3.12	0.26
9. Representation of farmers’ interests	NA	NA	NA	NA	NA	NA	NA	NA

Notes: Values indicate average scores of characteristic levels measured by a 5-point (1-5) scale

effectiveness: \bar{x} = 4.73, s = 0.36; quality: \bar{x} = 4.65, s = 0.63; and reliability: \bar{x} = 4.72, s = 0.45), provision of inputs (responsiveness: \bar{x} = 4.67, s = 0.41; effectiveness: \bar{x} = 4.38, s = 0.32; quality: \bar{x} = 4.85, s = 0.61; and reliability: \bar{x} = 4.63, s = 0.48), and provision of financial means (responsiveness: \bar{x} = 4.07, s = 0.44; effectiveness: \bar{x} = 4.18, s = 0.38; quality: \bar{x} = 4.26, s = 0.43; and reliability: \bar{x} = 4.19, s = 0.26). FA members gave less values to: provision of equipment for production (responsiveness: \bar{x} = 3.64, s = 0.32; effectiveness: \bar{x} = 3.54, s = 0.29; quality: \bar{x} = 3.89, s = 0.49; and reliability: \bar{x} = 3.44, s = 0.62) and natural resource management (responsiveness: \bar{x} = 3.26, s = 0.47; effectiveness: \bar{x} = 3.18, s = 0.51; quality: \bar{x} = 3.95, s = 0.39; and reliability: \bar{x} = 3.12, s = 0.26).

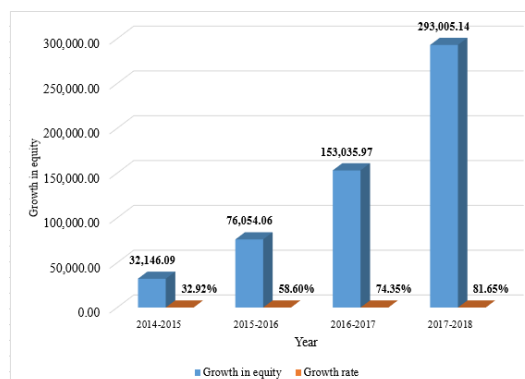


Figure 1. Growth in terms of equity (Peso) of food processing MEs, Baybay City, Leyte

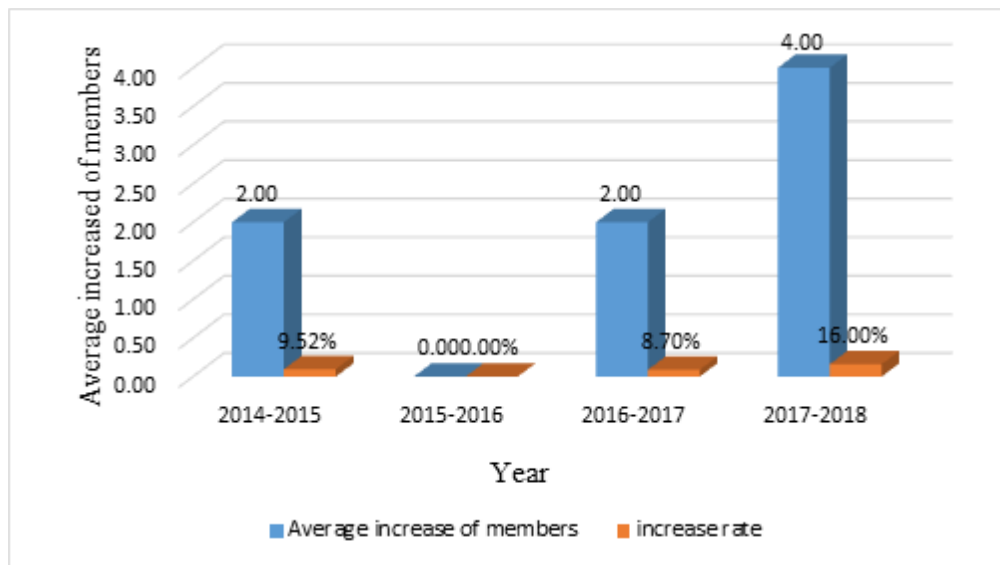


Figure 2. Increased in percent (%) of membership of FAs, Baybay City, Leyte

Increase in Membership

Figure 3 illustrates the percent (%) increase in membership of FAs in Baybay City from year 2014 to 2018. The increase in the membership of FAs fluctuated. In 2014 to 2015, there was a 9.52% increase. However, in 2015-2016 the average number of members remains the same from the previous year. In 2016-2017, an average of 2 members was added resulted to an increase rate of 8.7%. Finally, in 2017-2018 the increase rate rose to 16% with an average of 4 additional members within the year.

Internal Factors Affecting FA's Success

Table 11 indicates the relationship between the internal factors and satisfaction of members to FAs functions in Baybay City, Leyte. Results show a significant relationship at a 5% level between leadership and satisfaction of members ($r_s=0.5472$, $p\text{-value}=0.0351$). This result was in conformity with the findings of the study of Rwelamira (2015) which stated that poor leadership within FAs is a serious problem. Organizations work the way they do because of the way people work in the organization, and often reflects of their leadership. Furthermore, results revealed that building capacities and trainings ($r_s=0.6826$, $p\text{-value}=0.0038$) had significant relationship with satisfaction of members. This result agreed with the study of Hiatt and Carlos (2019) which indicated that one of the factors influencing FAs' performance is related to organizational capacity. Schmidt et al., (2015) and Rwelamira (2015) found that effective capacity development program can become the organizations' powerful source of influence. On the other hand, characteristics of FAs, composition of membership and

internal rules and by-law had no significant relationship with satisfaction of members to FAs functions.

Table 12 indicates the relationship between the internal factors, growth in equity and increase in members of FAs in Baybay City, Leyte. Findings shows a significant relationship of organizational activities such as building capacities and trainings ($r_s=0.6421$, $p\text{-value}=0.063$) and increase in members ($r_s=0.5728$, $p\text{-value}=0.0531$) with growth of equity. This result agreed with the study of Chanrith (2010) and Rwelamira (2015). Chanrith (2010) found out that successful FAs build members' capacities, through training activities, to run their organization. Rwelamira (2015) also specified that building capacity of FAs and its members exploit market opportunities and build the association into a sustainable business model thereby growing its equity. Furthermore, the findings of the research also indicated that a significant relationship between cooperation of other organizations and growth in equity ($r_s=0.5728$, $p\text{-value}=0.0131$). The importance of cooperation with other institutions conformed to the findings of Crowley *et al.* (2005) which indicated that successful FAs developed enduring relationships with other organizations, and have retained valuable social and political capital. Furthermore, the findings also revealed a significant relationship between leadership and increase in membership ($r_s=0.5361$, $p\text{-value}=0.0313$). On the other hand, characteristics of FAs and composition of membership had no significant relationship with growth in equity and increase in membership. However, in the study of Waddell (2017) and Meuwissen et al. (2019), it is recommended that the local government must build organizational program that will help farmers improve their well-being and participation to social enterprises.

Table 11. Correlation between internal factors and satisfaction of members to FAs Functions, Baybay City, Leyte

VARIABLES	SATISFACTION OF MEMBERS TO FAs' FUNCTIONS	
	CORRELATION COEFFICIENT (r_s)	p-value
Characteristics of FAs		
Number of years of existence	0.5564	0.6213
Number of members,	0.3195	0.2735
Capital Structure	0.4284	0.1832
Number of projects engaged	0.2841	0.4241
Composition of Membership		
Gender	0.7732	0.1271
Civil Status	0.7462	0.2273
Age	0.0427	0.1736
Education Level	0.6188	0.3463
Occupation	0.5978	0.1236
Religion	-0.1383	0.4735
Income	0.4721	0.2873
Family Size	-0.1937	0.2653
Governance and Structure		
Leadership	0.5472*	0.0351
Internal Rules and by- laws	0.3767	0.1470
Building Capacities and Trainings	0.6826**	0.0038
Level of cooperation of other organizations linked with FAs	0.1362	0.3246

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Table 12. Correlation between internal factors, growth of equity and increase in members of FAs, Baybay City, Leyte

VARIABLES	GROWTH OF EQUITY		INCREASE OF MEMBERS	
	CORRELATION COEFFICIENT (r_s)	p-value	CORRELATION COEFFICIENT (r_s)	p-value
Characteristics of FAs				
Number of years of existence	0.7463	0.4511	0.6271	0.1251
Number of members	0.1872	0.2725	0.3841	0.1822
Capital Structure	0.7863	0.3117	0.1573	0.2718
Number of projects engaged	0.2841	0.3787	0.3746	0.1625
Composition of Membership				
Gender	- 0.2584	0.2419	0.6351	0.2614
Civil Status	0.2474	0.6351	0.1521	0.1625
Age	0.1875	0.8217	0.1836	0.3522
Education level	0.3845	0.4551	0.7725	0.1736
Occupation	0.1564	0.3712	0.5272	0.2518
Religion	-0.1473	0.6381	0.3562	0.1782
Income	0.1749	0.3839	0.2491	0.2161
Family Size	0.8741	0.1834	0.7356	0.3511
Governance and Structure				
Leadership	0.6821	0.3572	0.5361*	0.0313
Internal Rules and by- laws	0.1452	0.5317	0.8271	0.3521
Building Capacities and trainings	0.6421*	0.0263	0.5728*	0.0531
Level of cooperation of other organizations linked with FAs	0.5274*	0.0131	0.3651	0.1477

* Correlation is significant at the 0.05 level (2-tailed).

Table 13 shows the effects of external factors to the success of the FAs as perceived by the FA officers and members. FA officers reported that the very unfavorable effects of external factors on their association was input costs ($\bar{x} = 1.26, s = 0.79$) and cost of agricultural equipment ($\bar{x} = 1.69, s = 0.85$). Slightly unfavorable effects included natural disasters ($\bar{x} = 3.45, s = 0.577$) and inflation rate ($\bar{x} = 3.87, s = 0.96$). Weather during the seasonal period ($\bar{x} = 4.28, s = 0.83$) and differences in religion and beliefs ($\bar{x} = 4.31, s = 1.3$) were considered “no effect”. Slightly favorable effects on FA were on availability of credit ($\bar{x} = 5.97, s = 0.87$) and government laws and regulations ($\bar{x} = 5.63, s = 0.52$). Favorable effects included market prices of agricultural products ($\bar{x} = 6.41, s = 0.95$), government programs ($\bar{x} = 6.23, s = 0.67$), and machinery availability ($\bar{x} = 6.14, s = 0.761$). On the other hand, two political factors such as DA Region 8 and DOLE Region 8 programs ($\bar{x} = 6.94, s = 0.83$), and Baybay City Agriculture Office programs ($\bar{x} = 6.73, s = 0.8$) had very favorable effects on FAs as

availability of credit ($\bar{x} = 4.38, s = 0.63$) and weather during seasonal ($\bar{x} = 4.25, s = 0.5$) were considered “neutral”. Very favorable effects on FA were on market prices of agricultural products ($\bar{x} = 5.53, s = 0.506$). Favorable effects included government programs ($\bar{x} = 6.1, s = 0.98$), and Baybay City Agriculture’s Office programs ($\bar{x} = 6.45, s = 0.71$). Finally, the two external factors with very favorable effects on FA as perceived by members were DA Region 8 and DOLE Region 8 programs ($\bar{x} = 6.8, s = 0.65$), and machinery availability ($\bar{x} = 6.75, s = 0.489$).

External Factors Affecting FA’s Success

Table 14 indicates the relationship between the external factors and satisfaction of members to FAs’ functions in Baybay City, Leyte. The findings showed a significant relationship between political factors and satisfaction of members to FAs’ functions ($r_s=0.7491, p\text{-value}= 0.0145$). This result matched with the study findings of Garnevska *et al.* (2011) in studying the

Table 13. Effects of external factors as perceived by FA Officers (n = 20) and FA Members (n = 68)

EXTERNAL FACTORS	FA OFFICERS		FA MEMBERS	
	Mean (\bar{x})	SD (s)	Mean (\bar{x})	SD (s)
Political Factors				
Government programs	6.23	0.67	6.1	0.98
DA Region 8 and DOLE Region 8 programs	6.94	0.83	6.8	0.65
Baybay City Agriculture Office programs	6.73	0.89	6.45	0.71
Economic factors				
Market prices of agricultural products	6.41	0.95	5.53	0.506
Availability of credit	5.97	0.87	4.38	0.63
Cost of agricultural equipment affect	1.69	0.85	1.65	0.66
Input costs	1.26	0.79	1.5	0.68
Inflation rate	3.87	0.96	3.5	1.1
Social factors				
Differences in religion and beliefs	4.31	1.3	3.85	0.533
Technological factors				
Machinery availability	6.14	0.761	6.75	0.489
Environmental factors				
Weather Condition	4.28	0.83	4.25	0.5
Natural Disasters	3.45	0.577	3.05	0.714
Legal factors				
Government laws and regulations	5.63	0.52	4.63	0.49

Note: Values indicate average scores of the effects of external factors measured by a 7-point (1-7) scale; (1) Very unfavorable effects, (2) unfavorable effects, (3) slightly unfavorable effects, (4) neutral, (5) slightly favorable effects, (6) favorable effects and (7) Very favorable effects

perceived by FA officers. For FA members, very unfavorable effects of external factors on their association were the same with FA officers such as input costs ($\bar{x} = 1.5, s = 0.68$), and costs for agricultural equipment affect ($\bar{x} = 1.65, s = 0.66$). Slightly unfavorable effects included differences in religion and beliefs ($\bar{x} = 3.85, s = 0.533$), and inflation rate ($\bar{x} = 3.5, s = 1.1$), and natural disasters ($\bar{x} = 3.05, s = 0.714$). Government laws and regulations ($\bar{x} = 4.63, s = 0.49$),

factors for successful development of farmer associations in Northwest China. Their research indicated that FAs’ development has been strongly influenced by the political environment and the political interference and support. Furthermore, the findings also revealed that economic factors ($r_s=-0.317, p\text{-value}=0.0230$) and technological factors ($r_s=0.4835, p\text{-value}=0.0164$) had significant relationship on the satisfaction of member. The importance of economic

Table 14. Correlation between external factors and satisfaction of members to FAs' functions, Baybay City, Leyte

VARIABLES (External Factors)	SATISFACTION OF MEMBERS TO FAS' FUNCTIONS	
	CORRELATION COEFFICIENT (r_s)	p-value
Political Factors	0.7491*	0.0145
Economic Factors	- 0.4917*	0.0360
Social Factors	0.2594	0.4817
Technological Factors	0.3928*	0.0184
Environmental Factors	-0.4464	0.8326
Legal Factors	0.2815	0.3845

* Correlation is significant at the 0.05 level (2-tailed).

Table 15. Correlation of external factors, growth of equity and increased in membership of FAs, Baybay City, Leyte

VARIABLES (External Factors)	GROWTH OF EQUITY		INCREASE OF MEMBERS	
	CORRELATION COEFFICIENT (r_s)	p-value	CORRELATION COEFFICIENT (r_s)	p-value
Political Factors	0.7682*	0.0319	0.5731*	0.0162
Economic Factors	0.6374*	0.0254	0.3528	0.2713
Social Factors	0.1733	0.3732	0.2731	0.3816
Technological Factors	0.3772	0.2748	0.2843	0.4728
Environmental Factors	0.4618	0.7846	0.3647	0.3611
Legal Factors	0.2493	0.5742	0.7642	0.3813

* Correlation is significant at the 0.05 level (2-tailed).

factors can be supported with the study of Rwelamira (2015) which indicated that access to responsive and adequate financial services such as availability of credit is one of the critical success factors for any type of organization. There is a negative correlation between economic factors and satisfaction of members. It is because as FAs need funds to set up viable commodity, access to funding in a form of credit and other forms have been one of the problems for FAs in Baybay City. Many banks do not want to deal with smallholder farmers' association for fear of high transaction costs and heavy follow ups for re-payments. The other external factors such as social factors, environmental factors and legal factors had no significant relationship with satisfaction of members to FAs' functions. Some of these findings conflicted with the results of the study of Rwelamira (2015) which indicated that a stable legal environment was one of the key factors for the successful development of farmer associations in Northwest of China.

Table 15 indicates the relationship of the external factors, growth in equity, and increase in membership of FAs in Baybay City, Leyte. Findings showed a significant relationship of political factors to growth in equity ($r_s=0.7682$, p -value=0.0319) and increase in membership ($r_s=0.5731$, p -value=0.0162). The study of

Elias *et al.* (2013) and Mudege *et al.* (2015) has pointed out that political support and interference had an important influence on the success, the viability and sustainability of FAs. The research findings also showed a significant relationship between economic factors and growth in equity ($r_s=0.6374$, p -value=0.0254). The other external factors such as social factors, technological factors, environmental factors and legal factors had no significant relationship with growth of equity and increase in membership. This results is not parallel to the findings of Schmidt *et al.* (2015).

4 CONCLUSIONS

Result showed that FA members indicated high satisfaction rate on FA's functions such as providing of technical information/advising, provision of inputs, and provision of financial assistance. However, they put lower values to provision of equipment for production, and natural resource management. For increased in membership, it is concluded that it was fluctuated. The internal factors that significantly affect the success of FAs in Baybay City, Leyte in terms of satisfaction of members to FAs' functions, equity growth and increased

in membership were leadership, building capacities and trainings, and cooperation of other organizations linked with FAs. On the other hand, the external factors such as political factors, economic factors and technological factors have a significant effect on the success FAs. Government programs through DOLE R8 and DA R8 were perceived by FA members to have very favorable effect on the success of their association whereas cost of inputs and agricultural equipment were perceived to adversely affect the FAs' success. Concerning organizational capacity, in order to improve management/leadership and financial planning and management, three capacity areas should be prioritized: strategic planning, business skill, and human resource management. Strategic planning is significant for FAs to reach their future directions with tailor-made judgment and resources. Entrepreneurship skill is crucial for FAs to initiate or extend their business activities. They have already shown success in some areas such as vegetable selling, swine fattening and poultry. To improve leadership, human resource mobilization skill needs to be additionally built up in order to stimulate more participation and responsibility from members. Moreover, a 'second wave' of leadership needs to be nurtured so that organizational sustainability is to be warranted.

RECOMMENDATIONS

It is recommended that Management Students (MS) can be tapped to work with FA management so that they can be mentored for future leadership. Organizational relationships need to be expanded with other development players such as provincial agencies (DA and DTI) and NGOs. It is a viable and plausible initiative for all development actors (government, donors, civil society and private sector) to engage in institutional strengthening of FAs, which serves as an important player for agricultural refinement that drives economic growth and poverty eradication. It is worth noting that majority of FAs in Baybay City are less than five years from its making, hence, for further research, it is also interesting to study the sustainability of these FAs and note important factors that hinder its growth.

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