

Practices of Agribusiness in Soccsksargen (Region Xii) and their Perceived Financial Performance: A Mixed Method

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Abstract - This study was conducted primarily to analyze practices of agribusiness in SOCCSKSARGEN (Region XII). A qualitative-quantitative research design was used in this study. This study used exploratory sequential mixed method. In the exploratory sequential approach, the researcher first begins with a qualitative research phase and explores the views of participants. The data were analyzed and the results were then used to develop the survey questionnaire.

The business practices of Agribusiness in SOCCSKGEN (Region XII) as to technology and innovation, knowledge in business, research and development, marketing mix, employee relation, and management functions/skills is evident. The marketing mix reflects with highest standardized beta coefficient which entails that among the practices of agribusiness in SOCCSKSARGEN (Region XII), the marketing mix is the significant indicator to the perceived financial performance of the agribusiness enterprises in the region. Only the length of service offers significant contingent effect. The four (4) moderating variables (Length of Business Operation, Type of Business Activities, Type of Management, and Position) offer no contingent effect to the relationship of the independent and dependent variables.

Keywords: Agribusiness; Marketing Mix; Employee Relations; Exploratory Sequential Mixed Method; Perceived Financial Performance; Length of Service

1. INTRODUCTION

1.1 Background Of The Study

In the last 50 years, the Food and Agriculture Organization (2014) projected that the value of global trade of food and agricultural commodities had increased and it was keep rising. United State of America (USA), Europe, Brazil, Argentina and Australia still dominated the markets in terms of agriculture, many emerging economies have shown very good performances and several countries are nowadays net exporters. Beside the most important and traditional commodities (cereals, meat, milk, sugar, palm oil, rubber, coffee, tea, cocoa, etc.), there is an increasing attention towards new high value products, which could be either consumed domestically by the growing middle class and exported to richer foreign markets (flowers, off season fruits and veggies, organic products, etc.).

Taking a closer look of the economic performance of the Philippines in year 2015, the country's Gross National Income (GNI) grew by 5.81% while Gross Domestic Product (GDP) was up by 5.90%. The Gross Value Added (GVA) in agriculture and fishing which accounted for 9.4% of GDP recorded a 0.34% increment (PSA - Official Website, 2016). This simply means that the agricultural sector has the capacity to contribute to the economic performance of the country; however, its contribution can be worked out to achieve its maximum capacity. Further, this implies that addressing the pressing issues on

agriculture can create a growing and encouraging environment for the agribusiness enterprises.

SOCCSKSARGEN is the main supplier of rice, corn, bananas, coffee, sugar, rubber, palm oil, fish, hogs, cattle and many more. Aside from these products, the Region supplies "non-traditional products" such as pineapple, natural rubber, palm oil, canned tuna, deboned bangus, coconut products, banana chips, white shrimps, etc.

The new agribusiness era is characterized by a shift from family farms to strategically placed commercial production and processing units linked to exporters and modern retailers. New sophisticated and globalized procurement practices have been mainstreamed to comply with food quality and safety standards, including traceability requirements, reduce transaction costs and minimize risks. Changing consumer preferences (especially for pleasure, health, fitness, convenience and ethics) and concerns about the impacts of climate change are pushing the agribusiness sector to new heights of performance and innovation (Food and Agriculture Organization of the United Nations, 2014)...

On the other hand, considering the strategic location of the Region as a typhoon-free area, it is vital to identify the relevant agribusiness practices in the Region simply because the recognition and concentration of the appropriate business practices can upturn the financial performance of the agribusiness entrepreneurs. With this situation, there is also an observed shift of business nature from industrial to agricultural. It is essential for them to



be informed of the different business practices that enhance financial performance in the agricultural sector. Moreover, in order to address the long term problem of the country on poverty, strengthening the agribusiness sector through focusing on the applicable business practices can be one of the solutions. Aside from this, agribusiness sector offers contribution to food security that would be essential in addressing food scarcity in the future.

Considering the cases presented above, it is imperative to conduct this study to know the business practices of the agribusiness enterprises in the SOCCSKSARGEN. The results of this study can be beneficial to many, particularly to the existing and potential agribusiness entrepreneurs, different government line agencies, policymakers, NGOs and INGOs, stakeholders, academe, and future researchers.

1.2 Conceptual Framework

Practices of Agribusiness in SOCCSKSARGEN (Region XII)

- A. Technology and Innovation
- B. Knowledge in Business
- C. Research and Development
- D. Marketing Mix
- E. Employee Relations
- F. Management Function/Skills



Perceived Financial Performance by Agribusiness Enterprises

Moderating Variable

- A. Length of business operation
- B. Type of business activities
- C. Type of management
- D. Position
- E. Length of service

The diagram showed the variables that were used in this study such as the independent variable, the dependent variable and the moderating variable. The independent variable pertained to the business practices of the agribusiness enterprises in SOCCSKSARGEN (Region XII). Specifically these agribusiness practices were the following; technology and innovation, knowledge in business, research and development, marketing mix, employee relations, management function/skills . The dependent variable was measured in terms of the perceived level of financial performance of agribusiness enterprise. The moderating variables were the length of business operation, type of business activities, type of management, position, length of service. The relationship between the independent variables and dependent variable were studied. In addition, the moderating variables were studied also if it can offer significant contingent effect to the relationship of the independent and dependent variables.

The practices of agribusiness were anchored with theories such as; theory of diffusion and innovation, knowledge spillover theory, contingency theory, equity theory, knowledge gap theory, while the dependent variable which referred to the perceived financial performance of agribusiness enterprises was anchored with the innovation theory of profits and managerial efficiency theory of profits.

1.3 Statement of the Problem

This study aimed to determine the practices of agribusiness in SOCCSKSARGEN (Region XII) and their perceived financial performance.

Specifically, this study sought to answer the following questions:

- 1. What are the business practices of agribusiness enterprises in SOCCSKSARGEN (Region XII)?
- 2. What is the profile of agribusiness enterprises in SOCCSKSARGEN (Region XII) in terms of:
 - A. Length of business operation
 - B. Type of business activities
 - C. Type of management
 - D. Position
 - E. Length of service
- 3. What is the level of business practices of agribusiness enterprises in SOCCSKSARGEN (Region XII) in terms of:
 - A. Technology and Innovation
 - B. Knowledge in Business
 - C. Research and Development
 - D. Marketing Mix
 - E. Employee Relations
 - F. Management Function/Skills
- 4. What is the perceived level of financial performance of agribusiness enterprises in SOCCSKSARGEN (Region XII)?



- 5. What is the significant relationship of technology and innovation, knowledge in business, research and development, marketing mix, employee relations, and management function/skills to the perceived financial performance of agribusiness enterprises in SOCCSKSARGEN (Region XII)?
- 6. What is the significant indicators of technology and innovation, knowledge in business, research and development, marketing mix, employee relations, and management function/skills that affects the perceived financial performance of agribusiness in SOCCSKSARGEN (Region XII)?
- **7.** What is the significant contingent effect of length of business operation, type of business activities, type of management, position, and length of service on the perceived financial performance of agribusinesses in SOCCSKSARGEN (Region XII)?

1.4 Hypotheses of the Study

These hypotheses were studied and tested at 0.05 level of significance.

H₀₁ The business practices of the agri-business enterprises in SOCCSKSARGEN (Region XII) in terms of technology and innovation, knowledge in business, research and development, marketing mix, employee relations, and management function/skills have no significant relationship to the perceived financial performance of agribusiness enterprises of SOCCSKSARGEN (Region XII).

H₀₂ There is no significant indicator among technology and innovation, knowledge in business, research and development, marketing mix, employee relations, and management function/skills that affects the perceived financial performance of agribusiness in SOCCSKSARGEN (Region XII).

 H_{03} The length of business operation, type of business activities, type of management, position, and length of service have no significant contingent effect on the relationship of the technology and innovation, knowledge in business, research and development, marketing mix, employee relations, and management function/skills and perceived financial performance of agribusiness enterprises of SOCCSKSARGEN (Region XII).

1.5 Objectives of the Study

The study aimed to achieve the following research objectives:

- 1. To conduct an in-depth interview to determine the different agribusiness practices in SOCCSKSARGEN (Region XII);
- 2. To come up with the profiling of the agri-business entrepreneurs in SOCCSKSARGEN (Region XII);
- 3. To determine the level of different business practices of the agri-business enterprises in SOCCSKSARGEN (Region XII);
- 4. To know the level of perceived financial performance of the agribusiness enterprises in SOCCSKSARGEN (Region XII);

- 5. To determine the relationship of the independent variables (technology and innovation, knowledge in business, research and development, marketing mix, employee relations and management function/skills) and dependent variable (perceived financial performance);
- 6. To determine the significant indicator(s) of the independent variables (technology and innovation, knowledge in business, research and development, marketing mix, employee relations and management function/skills) to the dependent variable (perceived financial performance); and
- **7.** To evaluate the significant contingent effect of the moderating variable (length of business operation, type of business activities, type of management, position, and length of service) to the relationship of the independent and dependent variables.

1.6 Significance of the Study

It has been known that Agribusiness is considered as one of the poverty alleviating strategies of the government. Hence, the results of this study are intended to benefit the following:

- 1. To the existing and potential agri-business entrepreneurs because it can give them information on the different relevant business practices that can affect their business performance in terms productivity, profitability, and sales.
- 2. To the Department of Agriculture, as the leading government agency for the agricultural sector, it is pivotal for them to be knowledgeable on the different practices that enhance business performance. The results of the study can be used as the basis for planning, developing, implementing, and evaluating government programs that pertains to different sub-sectors of agri-business.
- 3. To the Department of Trade and Industry, the results of the study can be of help to this agency in designing seminars, workshops and training on agribusiness. By the identification of the business practices, this agency can provide relevant interventions and support to the agribusiness enterprises.
- 4. To the local and national policy makers, the results of the study can help them re-assess the existing policies on agriculture, strengthen implementation of policies on agriculture, and propose substantial policies on agriculture.
- 5. To the National Government Organizations and International Government Organizations, the results of the study can be used as a tool in developing linkages, benchmarks, and networks to the different organizations that offer agricultural related services.
- 6. To the stakeholders, the results of the study can be essential to them by recognizing the different business practices that can greatly affect them and in return becoming a responsible agri-business practitioner.
- 7. To the academe, researchers and future researchers for it can guide them in establishing curriculum that is geared on agribusiness, provides empirical literature on



agribusiness, and can be the basis for further and extensive researches on agribusiness.

8. To the cooperatives and associations, it can give them additional knowledge which is of big help in determining potential strategies that can improve and enhance the financial performance of their business enterprises.

Scope and Limitations of the Study

This study focused on the identification on different level of agri-business practices in SOCCSKSARGEN (Region XII) in terms of, technology and innovation, knowledge in business, research and development, marketing mix, employee relations, and management function/skills. Furthermore, the perceived financial performance of the agri-business enterprises in SOCCSKSARGEN was studied.. Moreover, the significant effect of the different agri-business practices on the perceived financial performance was determined. On the other hand, this study was limited to the responses of the key informant interviewees and respondents. In terms of geographical limitations, this study investigated only to the provinces of South Cotabato, Cotabato Province, Sultan Kudarat, Sarangani, and General Santos. Specifically, in the cities of Koronadal and Kidapawan, and municipalities of Lake Sebu, Tupi, Polomolok, Mlang, Malungon and Lutayan. In connection, the measurement of the dependent variable was subject only to the perceived level of business financial performance.

1.8 **Definition of Terms**

Agri-business Practices - refers to the business practices of agribusiness entrepreneurs in SOCCSKSARGEN in terms of Technology and Innovation, Knowledge in Business, Research and Development, Marketing Mix, Employee Relations, and Management Function/Skills

Employee Relations - facilitating the welfare and good relations among the management and the employees.

Financial Performance - refers to the level of accomplishing financial objectives in terms productivity, cost efficiency and sales.

Knowledge in Business - knowledge and experiences in business operations.

Length of Business Operations - the length of time that the agribusiness exist.

Length of Service - duration of of service of a particular individual in the organization.

Management Function/Skills - implementation of management function in the business operations.

Marketing Mix - strategies employed to improve the product.

Position in Organization - specific job in the organization or placement in the organization.

Research and Development - efforts of the enterprise to sustain attainment of the quality of the products and or services.

SOCCSKSARGEN - is an acronym that stands for the region's four provinces and one of its cities: South Cotabato, Cotabato, Sultan Kudarat, Sarangani and General Santos City.

Technology and Innovation - the use of different machineries, advancement, and technology and adoption of innovation in the improvement of the business operations.

Type of Business Activities - refers to the agribusiness related activities such as crops, livestock, poultry, fisheries and other related activities.

Type of Management - this entails into ownership of the business enterprise such as, sole proprietorship, partnership, corporation, cooperatives, and associations.

2. METHODOLOGY

This chapter covered the following sections: Research Design; Sampling Design; Respondents; Data Collection Method; Statistical Tool; and Ethical Consideration.

2.1 Research Design

This study was conducted primarily to analyze practices of agribusiness in SOCCSKSARGEN (Region XII). A qualitative-quantitative research design was used in this study. This study was considered a mixed method because it employs both the qualitative and quantitative approaches (Creswell, 2008). This research design was used simply to collect and to analyse both kinds of data (qualitative and quantitative); it also involved the used of both approaches in tandem so that the overall strength of a study is greater than either qualitative or quantitative research (Creswell & Plano Clark, 2007).

2.2 Sampling Design

This study used both random and non-random sampling techniques. In the conduct of the Key Informant Interview, non-random sampling technique was used. The informants were selected based on these conditions: owner of the agribusiness enterprise in SOCCSKSARGEN (Region XII) area or top management employees of the identified agribusiness enterprises in SOCCSKSARGEN (Region XII); recommended by the officer in charge of the Agribusiness Section of the Department of Agriculture - Region XII. On the other hand, the respondents of the study were selected based on the list of registered agribusiness from the Agribusiness Section of the Department of Agriculture - Region XII.

2.3 Respondents

The respondents of the study were selected non randomly from the given list of the Agribusiness Section of the Department of Agriculture - Region XII. Specifically, purposive sampling technique and incidental sampling technique were used. It was purposive because, only those members of the association or cooperative were selected. Furthermore it was incidental because those who were available during the conduct of the survey were included as respondents.

2.4 **Data Collection Method**

Key Informant Interview was conducted to determine the different agribusiness practices in SOCCSKSARGEN (Region XII). The five (5) informants were selected from the agri-business practitioners in the area. A letter request



was sent to the informants to secure approval and schedule of interview. An interview guide question was designed to facilitate enlightening conversation. It was expected that relevant business practices in the area were identified from the key informants. A thematic analysis was employed to analyze the responses of the key informants. From the thematic analysis, a survey questionnaire was designed. This instrument was used as the main data gathering tool in this study.

A letter of endorsement from the Agribusiness Section of the Department of Agriculture Region XII were distributed to the respondents of the study. There were enumerators who assisted in the conduct of the study. Enumerators underwent to orientation on the conduct of survey to ensure the details and process of the survey. Specifically, enumerators who are able to verbally interpret the survey questionnaire in mother tongue since there are respondents who are T'boli, Ilonggo, Ilokano, Bisaya and Muslims.

The instrument underwent validity and reliability test. Both the Key Informant Interview guide and the survey questionnaire were subjected to validity and reliability test. There were three (3) experts who validated the interview guide. Moreover the survey questionnaire was validated by five (5) experts.

After expert validation, pre-testing was conducted to different agribusiness practitioners in Koronadal City and Lake Sebu, South Cotabato. Thirty (30) survey questionnaires were retrieved and analyzed for reliability test using the Cronbach's Alpha. The Cronbach's Alpha to be considered acceptable must be 0.70 and above (Nunnaly, 1978). The Cronbach's Alpha result was 0.897, which indicates high internal consistency of the pre-tested data. The survey questionnaire becomes ready for distribution.

The instrument which was used in the survey was a self-made survey questionnaire. The survey questionnaire had three parts: Part I (Practices of Agribusiness), Part II (Financial Performance), Part III (profile of the respondents). Questions or items in Parts 1 and 2 are in 6-point Likert Scale, while in Part 3 were in nominal scale.

Rating scale on the survey questionnaire

Rating scale on the survey questionnaire					
Numeric Scale	Range	Verbal Description	Interpretation		
1	1.00-1.49		The indicator is seen, experienced, and/or being done by the company/organization to a Least Extent .		
2	1.50-2.49	Disagree	The indicator is seen, experienced, and/or being done by the company/organization to a Lesser Extent.		
3	2.50-3.49	Slightly Disagree	The indicator is seen, experienced, and/or being done by the company/organization to a Less Extent.		
4	3.50-4.49	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.		
5	4.50-5.49	Agree	The indicator is seen, experienced, and/or being done by the company/organization to a Great Extent.		
6	5.50-6.00	Strongly Agree	The indicator is seen, experienced, and/or being done by the company/organization to a Very Great Extent.		

A six-point scale forces choice, giving better data. And, if at any point a neutral is desired, the "slightly agree" and "slightly disagree" can be averaged together (Thompson, 2018). Interpretation is anchored with the the likert scale response anchors (Vagias, 2006).

The numerical scale of 1 has verbal description of strongly disagree with interpretation that indicator is seen, experienced, and/or being done company/organization to a Least Extent.; numeric scale of 2 has verbal description of disagree with interpretation that indicator is seen, experienced, and/or being done by the company/organization to a Lesser Extent.; numeric scale of 3 has verbal description of slightly disagree with interpretation that indicator is seen, experienced, and/or being done by the company/organization to a Less Extent.; numeric scale of 4 has verbal description of slightly agree with interpretation that indicator is seen, experienced. and/or being done bv the company/organization to a Some Extent.; numeric scale of 5 has verbal description of agree with interpretation that indicator is seen, experienced, and/or being done by the company/organization to a **Great Extent.**; and numeric scale 6 has verbal description of strongly agree with interpretation that indicator is seen, experienced, and/or being done by the company/organization to a **Very Great Extent.**.

2.5 Statistical Tool

The data gathered were collated, tabulated and analyzed using the appropriate statistical tools. The following tools were used in this study:

- 1. Descriptive statistics such as frequency and percentage were used to analyze the profile characteristics of the respondents.
- 2. Multiple Regression Analysis was used to determine the factors that affect the practices of agribusiness entrepreneurs (Janssens, 2008). Regression analysis is a technique which is used to determine the casualty between one dependent interval or ratio scaled variable (the explained variable) and one or more independent interval or ratio scaled variables (the explanatory

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variable), in other words, one tries to explain the variation in one dependent variable as much as possible on the basis of the variation in a number of relevant independent variables. If there is only one independent variable, then this is a 'simple regression', while 'multiple regression' is the term used when multiple independent variables are involved.

A linear regression model in its general form was expressed as follows:

$$Y = b_0 + b_1 X_1 + b_2 X_2 + ... + b_n X_n + \varepsilon$$

3. The standard method of entry is simultaneous (a.k.a. the enter method); all independent variables are entered into the equation at the same time. This is an appropriate analysis when dealing with a small set of predictors and when the researcher does not know which independent variables will create the best prediction equation. Each predictor is assessed as though it were entered after all the other independent variables were entered, and assessed by what it offers to the prediction of the dependent variable that is different from the predictions offered by the other variables entered into the model.

4. Hierarchical method was that (1) in every step of the analysis, only two individuals or groups of individuals were considered and (2) once an individual has been assigned to a cluster, the cluster may no longer change for this person. The hierarchical methods contained agglomerative methods (departure of n individuals which each represent one cluster, and then agglomerate these two clusters with the highest similarity or lowest dissimilarity or distance until all the individuals have been included in one cluster) and divisive methods (departure of one cluster which contains all of the n individuals, and divides those into two groups, after which these groups are further divided up into two groups until n cluster result).

2.6 Ethical Consideration

The most salient ethical issue considered in this study involved the participants' identities and information associated with them. From an ethical perspective, the interview data collection process was not anonymous since the participants who answered the survey questionnaire were already identified prior to the conduct of the study. Nevertheless, their identities were kept confidential. Most importantly, the data information was also taken care confidently. Participants were assured of the confidentiality both before and after the survey session. To further ensure confidentiality, all the participants' names were not appeared in the survey questionnaire.

The findings of the study were shared to the identified participants such as the Key Informant respondents, to the respondents of the study, the Regional Office of Department of Agriculture Region XII and other government agencies who are vital in the conduct of this study.

3. FINDINGS AND IMPLICATIONS

The answers to the problems in the study are presented in this chapter. Specifically, the practices of agribusiness in SOCCSKSARGEN (Region XII), The profile of the entire population of the respondents, The level of business practices of agribusiness enterprise in SOCCSKSARGEN (Region XII), The perceived level of financial performance is shown in section 4.1. Section 4.2 presented the test for significant relationship of the Independent Variables and the Dependent Variable; test for MRA assumptions were shown in Section 4.3; Section 4.4 shows the test for significant contingent effect of the moderating variables; ; sections 4.5 on the Summary of Hypotheses; and 4.6, 4.7 and 4.8 are discussions pertaining to implications of the study to the theory, practice, and research, respectively.

3.1 Results

3.1.1 Practices of agribusiness in SOCCSKSARGEN (Region XII)

The practices of agribusiness in SOCCSKSARGEN (Region XII) were obtained from the conducted Key Informant Interview. It was participated by five (5) informants from different agribusiness practitioners in Koronadal City and Municipality of Lake Sebu, South Cotabato. Upon completion, a thematic analysis was prepared, based on the interview conducted and here are the different variables being observed:

3.1.2 Technology and Innovation

Technology and Innovation was being adopted by the key informant in their business operation. Participant IV made mentioned about technological fruit farming which used more advance technologies to further sustain the operations. The informant made use of technology to further innovate their products in order to deal with business challenges.

3.1.3 Knowledge in Business

The informants hold the major positions in the organization such as: owner and general manager. Key informants have been in service for about 10 years, 8 years, 5 years and 4 years respectively. Knowledge in Business operation is deem necessary to further understand the flow of business operations. Informant II mentioned that the knowledge in business was from his father who started to have a vegetable farm until such time he engage into supplying vegetables.

3.1.4 Research and Development

Research and Development was become part of the continuous search of the informants to better business operations. According to informant IV, continuous research lead them to technological farming.

Informants started their business among with their families but continuous research and development was observed. Through research and development the informants gradually diversified their products. Participants V made mentioned that she started with halal meat processing but because of research she come up with herbal medicine production.

3.1.5 Marketing Mix

Product is one of the vital composition of marketing mix. The informants practice to improve their products and services to continuously maintain the product quality. Marketing Mix on proper storage of the product is evident among the informants. In order for them to maintain good quality of the products, their must be strategic storage facilities. Marketing Mix on price was also observed among the informants. According to participant II, they don't have specific prices since it varies depending on the weather condition. Promotion is one important composition of marketing mix. Different promotional strategies were used by the informants to inform the market about their products. One common challenge among informants on marketing mix particularly in pricing was the lack of protection from concerned agencies in terms of pricing.

3.1.6 Management Function/Skills

Management Function/Skills involves the authority of the top management in the flow of operation. Participant II made mentioned that the full authority was made by him since he is the owner. Management Function/Skills in terms of chain of command is being observed. Majority of

the commands come from the owners. Management Function/Skills also involved activity delegations. According to informant I, activity delegation is from the head of the family. The other informants who owned the business made decisions on delegation process.

Management Function/Skills on problem solving was observed. According to informant III, since they consider their workers as family, they resolve problems through proper talk with each other and everyone deserves to be heared. Management Function/Skills on decision making was observed since the management made sure that in every decisions they made it was weighted accordingly.

3.1.7 Employee Relations

Employee Relations was evident since family members are involved in the operation. According to informant I, every member of the family as part of the operations of the business has its own route to the dealer. Employee Relations on delegations was observed since delegation of activities are clearly given and understood by the employees. Employee Relations was evident since owners resolve conflicts with appropriate actions if their are grudges among employees.

Table 3. 1 Profile of Key Informants and the Company/Establishment

Table 5. I Frome of Rey Informatics and the Company Establishment			
Key Interview Item	Key Informant Interview Responses		
Profile of the informant	- Owner of the enterprise		
	- 7 years in service		
Profile of the company/establishment	- Fish, vegetable, and meat production		
	- Fruit and other agricultural processing		
Length of operation	- Length of 7 years in operation		
Person who established the company/organization	- technology		
1 , 5	- continuous improvement		
	- research and development.		
	-family's initiative		
	-opportunities, organizations, and research		
Form of ownership			
	- Sole proprietorship		

A thematic analysis was prepared, based on the interview conducted, all of the key informants are the owner of the enterprise and on the average, key informants have been in the business for seven (7) years. Fish, vegetable, and meat production are the major categories they engaged with. Aside from these, key informants are into technological advancements like processing of fruit and other agricultural products. They have been into business for considerable period of time, on an average, they have been into operation for seven (7) years. Their business has been into operation over the years and has been into trying times. In order to deal with the challenges, different strategies were initiated like the use of technology,

continuous improvement, and research and development. They have different business start-up histories; basically, they have started because of family's initiatives, opportunities, organizations, and research. During the early years of operation, they have engaged into single product offering like the production of tilapia, vegetable and fruit farming, meat and spices processing. Through the aid of technology, research and development, they gradually diversified their products.

Majority of the key informants engaged into sole proprietorship as they have appreciated the easiness of handling the business in this form of ownership.

Table 3.2 Key Informants' Management Practices of Company/Establishment

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Key Interview Item	Key Informant Interview Responses			
Authority	- Owner have the full authority and responsibility			
	- Involved other family member			



Chain of command	Owners command are one of the primary functionOwners usually do the delegation	
Activity delegation	- Owners do the appropriate actions	
Problem Solving	- Owners do the decision making with the consensus of the	
Decision making	family member - Knowledgeable in the production process	
Recruitment and selection	- Regular salary	
Employee motivation	- Incentives - Sharing of information - Attending seminars	
Employee competitiveness		
Being the owner of the business, they have the	of their primary functions. The owners usually do the	
responsibility of managing the business and they have	delegation of activities and they make sure that their	
gained the necessary knowledge and skills in managing	personnel have clearly understood their given activities. If	

Being the owner of the business, they have the responsibility of managing the business and they have gained the necessary knowledge and skills in managing the business. Moreover, they involved other family members in managing the business, however, the full authority and responsibility still on the hand of the owner. As the owners, they usually have the authority to direct the personnel. They personally involved in the business operations and thus giving orders and commands are one

of their primary functions. The owners usually do the delegation of activities and they make sure that their personnel have clearly understood their given activities. If there are instances of glitches, the owners see to it that appropriate actions are taken. The owners usually do the decision making with the consensus of other family members. Before making the decision, owners exert efforts in weighing the consequences of the actions.

Table 3.3 Marketing Mix Being Used by Key Informants in the Company/Establishment

Key Interview Item	Key Informant Interview Responses
Product	- Improvement of products and services were taken into
	consideration
Place	- Appropriate storage facilities
Price	- Size of the product
	- Weather condition
	- Cost of raw materials
	- Number of harvest
Promotion	- Word of mouth
	- Posters
	- Tarpaulins

Over the years of operation, practices to improve their products and services were taken into consideration to continuously maintain the product quality. For example, the quality of the harvested tilapia must be the same from the previous harvest; and secret ingredients must be formulated and maintained over the years. In order to maintain the quality of the products, appropriate storage

houses were designed in strategic locations. In pricing the product, different factors are need to consider such as, size of the product, weather conditions, cost of raw materials, and number of harvest. Different promotional strategies were used like the word of mouth; and increasing product visibility through posters and tarpaulins.

Table 3.4 Impact of the Perceived Financial Performance and Challenges Encountered by Key Informants in their Company/Establishment

Key Interview Item	Key Informant Interview Responses	
Effect or impact of practices to the financial performance	- Financial performance has improved	
Challenges encountered		
	- Upset government programs	
	- Discontinuing support from DTI	

- Limiting of production capacity

- Lack of protection in terms of pricing and financing programs

Common problems encountered are from the upset programs government and interventions like discontinuing of support from the DTI, limiting of production capacity, lack of protection in terms of pricing and financing programs. Basically it is expected that after exhibiting different strategies, financial performance has improved.

Upon completion of the thematic analysis it found out that there are six (6) practices that are being observed. The practices are as follows: Technology and Innovation, Knowledge in Business, Research and Development, Marketing Mix, Employee Relations, and Management Function/Skills. These six practices are significant in the conduct of the study; Practices of agribusiness in SOCCSKSARGEN (Region XII) and their perceived financial performance.

3.2 **Profile of the Respondents**

This section shows the profile of the respondents as to length of business operation, type of business activities, type of management, position, and length of service.

The qualitative data obtained from 5 participants through Key Informant interview revealed that most started with a small scaled agribusiness which later became productive and developed through time. Three among the five participants claimed that the operation of the business was conceived when their parents started to cultivate their own lands for a crop production which later developed as part of agribusiness industries. (refer to appendix B).

Accordingly, the business started its operation through simple means which later became progressive through the utilization of technology and sustained over the years.

One participant was on the fishery Production for ten years which started in 2009, he claimed that the business was sustained but forced to stopped due to frequent fish kills brought by unfavourable climactic condition, in 2017. It was then re -opened in the year 2018 after the rehabilitation period of their fish pens and acquired enough number of fingerlings. Second participant is on vegetable and fruit production for four years. The business started when his father created an agribusiness in vegetable and fruit farming. He said that the business was sustained over the years and became the supplier in malls and public markets. The third participant was on fruit production for ten years. The business started by selling fruits which later developed and converted to sell fruit juices. The fourth participant was already operating for 5 years which started in the year 2012 and the fifth participant was in agribusiness for eight years which gave rise to other kind of business.

Consequently, on the data obtained from Key informant interview it can be said further that most of the businesses were on the business operation for less than ten years. This is supported with the quantitative data obtained from sample population composed of 348 respondents.

The frequencies and equivalent percentage is provided for in -depth interpretation of the data obtained from the data gathering.

Table 3.5 Length of Business Operation

Years in Business Operation	Frequency	Percent	
1-3 years	73	21	
4-6 years	151	43.4	
7-9 years	79	22.7	
10 years and above	45	12.9	
Total	348	100	

Table 3.5 shows the Length of Business Operation of the respondents. It is shown in the table that 43.40 percent or one hundred fifty - one (151) of the respondents are the in the agribusiness enterprise for 4- 6 years. Seventy - nine or 22.70 percent of the respondents are in the business for 7- 9 years while seventy - three (73) or 21.00 percent operates their business for 1- 3 years. Minority of the respondents with 12.90 percent or forty- five (45) are in the business for 10 years and above already.

This implies that most of the agribusiness in SOCSSKSARGEN (Region XII) area is dominated by agribusiness owners who are 4-6 years in the business operation comprising at about 43.40 percent of the total sample. It can be shown further that those who have operated for 10 years and above got a least number of percentage at about 12.90 percent. The data gathered revealed that agribusinesses exist in SOCSSKSARGEN (Region XII) are new in the agribusiness industry considering the number of years of operation.

Type of Business Activities

Five participants were interviewed to obtain a qualitative data of the study. The participants were asked about the nature of the business operation and the products and services offered.

Accordingly, The Participant I was on Agri-fishery particularly in Tilapia production. He claimed that the business operation focuses on distributing tilapia both to wholesalers and retailers. Participant II was on the vegetable farming business which was conceived by obtaining vegetable products from his father and sold to the market which later became productive and supplied malls and retailers. Participant III obtained his business by acquiring different variety of fruits seedlings and came into fruit production. The fruits now were innovated to fruit juices selling. Participant IV was on the spiced vinegar business, fish paste and dayok selling. Participant V was on processed meat and added another business which focused on herbal medicine.

In consonance with the nature of business and type of business activities, it can be said further that most of the business concentrated on plant production. These are sort of vegetables and fruits products as SOCSSKSARGEN (Region XII) has a huge farmlands and display favorable climactic condition on agricultural plants as though sometimes affected by typhoons whole year round.

Table 3.6 Type of Business Activities

Business Activities	Frequency	Percent
crops	189	54.3
livestock	28	8.0
poultry	55	15.8
fisheries	76	21.8
Total	348	100

Table 3.6 shows the types of business activities of the respondents. Majority of the respondents are into the crops with the percentage of 54.30 or one hundred eightynine (189) respondents. Seventy - six (76) or 21.80 percent of the respondents are into fisheries, fifty - five (55) or 15.80 percent are into poultry, and 8.00 percent or twenty- eight (28) respondents are into livestock.

3.2.2 Type of Management

The type of management as to form of business ownership obtained from Key informant interview was all

anchored on sole proprietorship which means that most of the business among interviewed participants owned their business and managed by their family members. It is in consonance with the statements of participant 2 which states that the he started the business through his father who cultivated the land and converted into vegetable farming which he later continued and sustained.

The table below shows the type of management practiced by agribusiness owners including the frequency and percentage.

Table 3.7 Type of Management

Management	Frequency	Percent
Sole proprietorship	145	41.7
corporation	3	0.9
partnership	5	1.4
cooperative	80	23.0
association	115	33.0
Total	348	100

It is shown in the Table 3.7 the Type of Management of the respondents. Sole Proprietorship is used by one hundred forty - five (145) respondents. One hundred fifteen or 33.00 percent respondents are categorized as association, 23.00 percent with eighty respondents are cooperatives, 1.40 percent or 5 respondents are partnership, and only 3 or 0.90 percent is categorized as corporation.

The table revealed that most of the agribusiness as to forms of business ownership comprised mainly of sole proprietorship having 145 agribusinesses exist in the area. It can be observed on the data that this is true among agribusinesses whose prime agricultural products depend on crops.

Moreover, some agribusiness is in form of association comprising 33 percent among all agribusinesses exist in the area. It implies that some agribusiness owners rely on association to supplement knowledge and share management practices in the operation of the business.

3.2.3 Position

The distribution of power in managing business is very important so that there is no overlapping of assumed responsibilities and that makes the business organized with a structure modes of operation. The qualitative data obtained showed different themes of responsibilities through their respective positions. Participant I claimed that the business is family owned everyone has shared responsibility in decision -making and everyone has a freedom to practice direct authority. This is in contrast to the statements of three participants who claimed that they had a direct authority in leading their business.

Overall most of the participants who were interviewed has a direct control and authority of their own agribusiness. Moreover, the quantitative data obtained revealed that most agribusinesses in SOCCSKSARGEN (Region XII) involves different positions in sustaining the business operation

The table below shows the frequency and percentage of the respondents of the study. Table 3.8 Position

Position	Frequency	Percent
Owner	90	25.9
Care taker	28	8.0
Employee	188	54.0
Point person	40	11.5
Member	1	0.3
President of the Association	1	0.3
Total	348	100

As shown in the table, more than half of the respondents are employees with 54.00 percent followed by the owners and point person with 25.90 percent and 11.50 percent respectively. Moreover, minimal percentage is attributed to the care taker, member, and president of the association.

Based on the frequency of positions, most of the respondents are employees as revealed by the sample taken from the field. This implies that Big companies that operates agribusiness in SOCCSSKSARGEN (Region XII) are the frontiers of agribusiness in the region. These companies attract more employees to sustain its operation thus, making a big impact on the economy of the place. Likewise, some position which is larger in number is dominated by owners next to employees. This is true considering the data revealed on form of agribusiness ownership is dominated by sole proprietors. However, the

success in financial performance is dependent on their capacity to sustain needed machineries in the operation of the business. Sole proprietor's has only limited resources. Among them are owners of agribusinesses in crop production which cultivate their own lands and that needs large amount of capital for the maintenance for high yield expectancy compared to that of companies operating same business where resources is available and highly powered equipment needed for specific jobs.

3.2.4 Length of Service

The qualitative data obtained from the field participated by different business owners had operated for less than 10 years. Consequently, the data gathered from the answered researcher-made questionnaire give more light to find out the length of service of agribusiness operators. The table shows the Years of business operation with a class interval of 3 respectively.

Table 3.9 Length of Service

Years in Business Operation	Frequency	Percent
1-3 years	196	56.3
4-6 years	94	27.0
7-9 years	24	6.9
10 years and above	34	9.8
Total	348	100

Table 3.9 shows the Length of Service of the respondents. One hundred ninety - six (196) or 56.30 percent of the respondents are in the services for 1- 3 years. Twenty seven percent (27%) or ninety - four (94) respondents serves for 4-6 years. As shown, there are 9.80 percent or thirty four (34) respondents who serve for 7-9 years, and 6.90 percent or twenty four (24) respondents are in the service for 10 years and above.

The data revealed the length of service of respondents. It is dominated by respondents having served for 1-3 years. It can be observed further, that most of the respondents are neophytes in terms of experience.27.00 percent of which are respondents having served for 4-6 years. It implies that the extent of experience is not enough compared to that of respondents who have served 7-9 years and beyond, however, it only comprised of 6.90 percent - 9.80 percent.

3.3 The level of business practices of agribusiness enterprise in SOCCSKSARGEN (Region XII)

This section shows the mean scores of technology and innovation, knowledge in business, research and development, employee relations, and management function/skills as variables used in the study. It includes the crafted statements with its respective mean, descriptive equivalents, and interpretation.

3.3.1 Technology and Innovation

Five participants were interviewed from the field and it was found out that they are using technology as part of the business innovation. One participant claimed that his business was in fruit production and 'through research with technological farming techniques he was able to produce a product with the use of fruit juices and sold in the market. Another participant further said that his business had opened another agricultural product in herbal medicine this initiative was obtained from a



seminar sponsored by an agricultural agency. To further understand the extent on the use of technology and

innovation refer to the table below.

Table 3.10 Agribusiness Practices in Terms of Technology and Innovation

Indicators	Mean	Descriptive Equivalent	Interpretation
Used different machineries, advancement , and technology in the improvement of product quality.	4.62	Agree	The indicator is seen, experienced, and/or being done by the company/organization to a Great Extent.
Connected with the different agencies like the Local Government Unit, Department of Science and Technology, and Department of Industry for relevant technology transfer.		Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
Allocated certain amount of money for the advancement and technology.	4.34	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
Total	4.46	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.

Table of 3.10 on Agribusiness Practices in terms of Technology and Innovation is rated 4.46, described as slightly agree and interpreted as the indicator is seen, experienced, and/or being done company/organization to some extent. This implies that the level of agribusiness as to technology and innovation is evident however, it must be sustained. It can be observed on the relevant literature of the study that the use of technology enhances product quality and improves work efficiency in consonance with the statements of Weick (2010) who states that technology and innovation has long been a major contributor to progress in agribusiness, and it will continue to influence agricultural inputs, production, processing, distribution marketing.

Rated highest is on the used of different machineries, advancement, and technology in the improvement of product quality with the mean of 4.46 which is described as slightly agree and interpreted as the indicator is seen, experienced, and/or being done by company/organization to some extent. This only means that most agribusinesses in SOCSSKSARGEN (Region XII) is bent on using technology for the improvement product quality. Since most agribusinesses is anchored in farming most of the Agribusiness do not only rely on chemicals and artificial fertilizers but mostly used machineries and other equipment to sustain high yield. The indicator on connected with different agencies like the local Government Unit, Department of Science and Technology and Department of industry for relevant technology transfer with mean of 4.43; and allocated certain amount of money for advancement and technology with the mean of 4.34 and described as slightly agree and interpreted as the indicator is seen, experienced, and/or being done by the company/organization to some extent. This only implies that agribusinesses has an access to local government agencies that helps agribusiness owners to produce more quality agricultural products but needs to be further since the level of practice is at the middle stage thus, agribusiness needs to upgrade on technology utilization and innovation particularly on the aspect of allocating funds to acquire more machineries in improving the business operation.

The respondents used relevant technologies needed for specific jobs. The data revealed that agribusinesses are equipped with technology in sustaining the quality of the products. It may include medicine, machineries and other equipment.

Moreover, agribusiness in SOCSSKSARGEN (Region XII) has access to different agencies that provides innovative strategies as a guide in producing high yield expectancy. Agencies like LGU's, DOST, and Department of Industry which provides necessary information as to how agribusiness owners innovate seasonal crops and provide medicine for epidemic diseases that exist in the area. Furthermore, Agribusiness owners allocates funds for acquiring new machineries needed to sustain the operation of the business.

Overall, Technology and Innovation among Agribusinesses in SOCSSKSARGEN (Region XII) is evident. These are equipped with necessary machineries as reflected on the data presented. This suggests that Agribusiness in SOCSSKSARGEN (Region XII) must capitalize on local initiatives so that there is coordination between owners and agencies to sustain efficiency in turn—over of investment and create positive impact in the economy.

3.3.2 Knowledge in Business

The level of business practice as to knowledge in business among business owners was obtained from seminar and relevant business experience. The qualitative data obtained from the participants revealed that most of their

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knowledge in sustaining the operation was gained through their own experience.

The business operation is sustained through the expertise of the owner along with the family members. Sharing of knowledge is evident, employees are encouraged to attend seminars and gain knowledge on the trends, innovations, and technology necessary in the business. In consonance to the statements of Participant IV he said that the employees are taught of running the business gained through experience and allows his employees to attend relevant seminar associated with the products and services offered.

Table 3.11 Agribusiness Practices in Terms of Knowledge in Business

Indicators	Mean	Descriptive Equivalent	Interpretation
The owners and employees have knowledge in the business operation.	4.68	Agree	The indicator is seen, experienced, and/or being done by the company/organization to a Great Extent.
The knowledge of the business operations has improved through gained experiences.	4.59	Agree	The indicator is seen, experienced, and/or being done by the company/organization to a Great Extent.
The knowledge of the business operation has improved through participating relevant training and seminars both by the owner and employees.		Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
The owner has shared relevant knowledge and skills among the employees.	4.57	Agree	The indicator is seen, experienced, and/or being done by the company/organization to a Great Extent.
Total	4.55	Agree	The indicator is seen, experienced, and/or being done by the company/organization to a Great Extent.

Table 3.11 shows the agribusiness practices in terms of knowledge in business is rated with an average mean of 4.55, described as agree and interpreted as the indicator is experienced, and/or being done by the company/organization to a great extent. This only means that the level of agribusiness owners as to knowledge in business is at the maturing level and implies that agribusiness owners have an in-depth knowledge on how the business operates. It can be observed on the qualitative data that the business is sustained through new knowledge gained through relevant seminars and training, more knowledge is attributed to their own experience.

Rated highest under this cluster is the owner and employee have knowledge in business operation, with the mean of 4.68, described as agree and interpreted as the indicator is seen, experienced, and/or being done by the company/organization to a great extent. This can be attributed to the relevant trainings and seminars attended by the employees and or re-echo sessions of the business owners.

Indicator on knowledge in business operation has improved through gained experience is rated with a mean of 4.59; indicator on knowledge of the business operation has improved through participating relevant training and seminars both by owner and employees with the mean of 4.35; and as The owner has shared relevant knowledge and skills among employees are rated with a mean of 4.59, and all are described as slightly agree and interpreted as the indicator is seen, experienced, and/or being done by the company/organization to some extent. The data also revealed that shared knowledge and skills among agribusiness owners and their employees is also evident.

The data provided shows the extent of respondent's knowledge in agribusiness. It can be observed further that most of the respondents are equipped with agribusiness knowledge. Relevant experiences also help respondents to have an in-depth know-how as to how business operates considering its salient features and mechanisms.

Overall, the respondents' knowledge in agribusiness sustained their operation and this suggests that agribusinesses must continue to acquire relevant information from leading agribusinesses exist within and outside the country.

3.3.3 Research and Development

Another theme was focused on the research and development practice of agribusiness SOCSSKSARGEN (Region XII). Five respondents were asked about the level of practice on product, place, price and promotion as part of research and development since these four elements is the primary subject of the research and development in the operation of the business. Most of



the participants claimed that good quality products would result to good outcome. One participant said that he developed his product out of his research. He converted fruit selling to fruit juice extract selling as he innovate the harvested fruits and created a new product. One respondent said that his product is based on the new formula and secret ingredients acquired through his research.

When asked about the marketplace where products are displayed for selling, respondents also used business strategies, One participant said that harvested tilapia fish products were distributed with-in and outside South Cotabato, It is a common practice among other agribusiness in SOCCSKSARGEN (Region XII). Most of the participants have their own warehouse in the market except participant IV who had his own storage and

research office where they conducted their product innovation.

Research on price is a primary consideration in the market thus, when the respondents asked about market price of products offered they considers size of products, weather conditions, cost of raw materials and number of harvest. Product promotion is necessary thus when asked about product promotional strategies they used tarpaulins and the word of mouth as a tool in attracting costumers.

Overall, the result of qualitative data obtained from the field revealed that the respondents are using experienced based approach in practicing their business. Sad to note however, some respondents are not used to conduct formal research and development as to how the different elements affect the business operation. The findings of qualitative analysis is supported with the quantitative data

Table 3.12 Agribusiness Practices in Terms of Research and Development

Indicators	Mean	Descriptive Equivalent	Interpretation
The enterprise has exerted effort in terms of relevant research and development.	4.07	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
The enterprise has outsourced experts to conduct research and development.	4.02	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
The management has integrated the relevant results of research in its business operation.	4.00	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
Result of research and development has been used to achieve quality of the products and or services.	3.97	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
Total	4.01	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.

The table shows the response of the respondents in terms of the extent of their practice on research and development among Agribusiness in SOCSSKSARGEN (Region XII) with a total mean of 4.01, described as slightly agree and interpreted as the indicator is seen, experienced. and/or being done the company/organization to some extent. It implies that Research and development is slightly evident. The agribusinesses in SOCSSKSARGEN (Region XII) practiced research and development for product and enhancing the management improvement, mechanism, sad to note however the extent of practice is at the middle stage and this suggest that they must provide more venue for research and development to improve productivity.

Moreover, the extent of research and development practice must be sustained. As reflected on the result of to minorate products and services. Assuming its quality and services and services. Assuming its quality and services are services as a service of the services and services are services. Assuming its quality and services are services and services. Assuming its quality and services are services and services. Assuming its quality and services are services and services. Assuming its quality and services are services and services. Assuming its quality and services are services and services are services. Assuming its quality and services are services are services. Assuming its quality and services are services are services. Assuming its quality and services are services are services.

research and development, agribusinesses has exerted effort in conducting research and development to further the development of business operation.

Likewise, outsourced expert researches adapted in the business operation is also evident thus results and recommendation was carried out in the management practice and its operation. The researches contain relevant interventions and strategic techniques in sustaining the agribusiness management. The challenge among agribusiness owners is to provide necessary budget and or allocate funds for further researches as it is needed considering the impact of agribusiness in the local economy and as to how it will be sustained.

Marketing Mix

The data obtained from the Key informant interview relevant to marketing mix showed that respondents tried to innovate products and services. Assuring its quality and



pricing strategy is also evident. One participant said that his product is based on the developed formula and the taste is according to the preference in the market.

Moreover, the data obtained from the field gave more light to the level of practice among Agribusiness in SOCCSKSARGEN (Region XII) as revealed on the table below with its interpretation.

Table 3.13 Agribusiness Practices in Terms of Marketing Mix

Indicators	Mean	Descriptive Equivalent	Interpretation
The enterprise has commitment in maintaining the quality of the product.	4.62	Agree	The indicator is seen, experienced, and/or being done by the company/organization to a Great Extent.
The enterprise has continuously searched for product and service improvement.	4.44	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
The enterprise has considered appropriate pricing strategies in consideration of the prices of raw materials and other related costs.		Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
The enterprise is able to give location benefits to its customers.	4.47	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
The enterprise has considered appropriate promotional strategies like posting tarpaulins, radio ads, use of social media and other printing materials.		Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
Total	4.43	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.

Table on the level of business practices of agribusiness enterprise in terms of marketing mix is rated slightly agree and interpreted as the indicator is seen, experienced, and/or being done by the company/organization to some extent. On the cluster rated highest as the enterprise has commitment in maintaining the quality of the product with the mean of 4.62 with a descriptive equivalent of agree and interpreted as the indicator is seen, experienced, and/or being done by the company/organization to a great extent. It means that agribusinesses main target was to maintain the quality of products as they generate more profit from it, hence it continuously searched for product and service improvement.

Additionally, enterprise also considered appropriate pricing strategies in consideration of the prices of raw materials. Promotional strategies is also evident thus, enterprise provides a venue in promoting the products through radios, social media, tarpaulins and ads. These local initiatives may help agribusiness owners to attract more customers and that would bring their products in the limelight of the world market. Thus, it may help to attain high financial performance. But it must be sustained and must be taken major consideration in business since the level of practice is at the slightly maturing level.

3.3.5 Employee Relations

The data obtained from exploration on employee relations, five respondents were asked about the recruitment and selection process of employees in an organization over the years of operation. One respondent said that his business involves the family members in running his fishery agribusiness. Participant 2 said that he only consider the experience of an individual to be part of his business as employees as long as they are knowledgeable in doing the business. One business owner who runs vegetable farming business said further that they have no formal selection of employees whenever get hired and intends to leave they can leave.

Consequently, respondents were also asked as to how they motivate their employees, Participant I who runs fishery particularly in Tilapia production said that during the harvest, each member is given 2-3 kilos of tilapia and their share on the profit. Business owner who runs vegetable farming said that they gave snacks during the harvest and it adds more motivation among their employees. Business owner who runs a herbal medicine products further stated that aside from their daily salary amounting Php295.00.

Furthermore, when the respondents were asked about the competitiveness of their employees, One respondents said



that he allows his family members to be trained in the proper handling of the fish, since members of the family where the employees of his agri-fishery business. On the other hand, participant 2 further said that he only applies what his father had taught him.

Meanwhile, participant III also stated that most of the training was anchored on traditional training, he provides

an avenue for his employees to be trained in technological farming. One respondent said further that he attends training and do reecho session among his employees.

To give more light on the employee relations the table below provides a figure in numbers with its description and interpretation.

Table 3.14 Agribusiness Practices in Terms of Employee Relations

Indicators	Mean	Descriptive Equivalent	Interpretation
The enterprise has upheld the welfare of the employees by providing safe and sound workplace and or environment.		Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
The enterprise has maintained harmoniously the relationship among the employees.	4.42	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
In case of misunderstandings, the management has taken appropriate actions.	4.45	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
The management has provided attractive salary and incentives to the employees.	4.16	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
Total	4.35	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.

Table on the level of business practices in term of employee relation is rated with an average mean of 4.35, described as slightly agree, and interpreted as the indicator is seen, experienced, and/or being done by the company/organization to some extent. All indicator is seen, experienced, and/or being done by the company/organization to some extent, this implies that even agribusinesses gives employee motivational techniques by giving incentives aside from their salaries, there must be a venue to increase the level of practice in employee relations as human resources are the primary element in the organization to work.

Furthermore, the enterprise provides by giving them extra incentives, enough compensation in exchange of their service. Conflict management has taken appropriate actions as reflected on the result of the data gathering. The enterprise maintains high employee morale by providing safe and sound environment needed to sustain harmonious relationship.

3.3.6 Management Function/Skills

Exploration on Management function and skills the qualitative data revealed that respondents have different management styles based on the given responses in the Key Informant Interview. The respondents were asked about the type management as to authority, in an organization where one participant who does agri-fishery said, he has a direct control on his business and family members are all employees that displays shared responsibility. This statement is in contrast to the business owners who do farming business who are all on top of the organization and practiced the managerial rules innate to the products offered.

The respondents were also asked on type of management as to activity delegation. One respondent who do farming business he starts with staffing, he gives errands and delegate the job among his employees.

In terms of problem solving, Participant I said that if problem arises the family members gather together to discuss solutions where each member are given privileged to raise opinions. In consonance with the respondents running an agri-fishery business, other business owners also gather with their employees to discuss matters associated with the business operation.

Meanwhile, in terms of decision -making the business owners themselves do the decision in the business operation, since they have the direct control of the business, this is in contrast with the statements of Participant I who further stated that any member in the family can raise suggestion and if taken by majority this is followed.

The thematic analysis provides a background of how agribusiness works in terms of type of management. In terms of chain of command as the owner, they have the authority to direct the personnel, as to activity delegation,



the owners usually do the delegation of activities and they make sure that their personnel have understood their given activities, as to problem solving, if there are conflicts or challenges, the owners see to it that the appropriate actions are taken. Further, in terms of decision

making the owners usually do the decisions as regards to the whole operation.

The quantitative data obtained from the field give more light as to what extent the agribusinesses in SOCCSKSARGEN (Region XII) practiced effective management functions and skills.

Table 3.15 Agribusiness Practices in Terms of Management Function/Skills

Table 5.15 Agribusiness frac	1		
Indicators	Mean	Descriptive Equivalent	Interpretation
The management has a strategic development plan for the enterprise	4.24	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
The management has a concrete operational manual to the employees for the smooth business operation.	4.22	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
The management has exercised full responsibility and authority in every decisions made.	4.47	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
The management has delegated activities to the employees.	4.40	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
The management has monitored and evaluated of employees' activities.	4.29	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
Total	4.32	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.

Table on the level of business practices in term of management functions/skills is generally rated with an average mean of 4.32 and interpreted as the indicator is seen, experienced, and/or being done by the company/organization to some extent.

The data revealed the extent of practice in management function where crafting of strategic development plan, creating concrete operational manual, exercising full responsibility and authority in decision making, delegating activities among the employees; and management practice on monitored and evaluated activities among employees is evident.

Moreover, the result on management function suggests that there is a need to maximize management in agribusiness as reflected on the result which is interpreted as the indicator is seen, experienced, and/or being done by the company/organization to some extent. This also implies that agribusiness owners must further acquire more knowledge in managing their agribusiness to gain more profits and sustain high financial performance.

Overall, management function will help agribusiness can provide a means to obtain high financial performance through effective management practices.

Table 3.16 Summary of Level of Implementation of Agribusiness Practices

14010 2.110 2.4111	Table 5.10 Summary of Level of Implementation of Agricustices								
Indicators	Mean	Descriptive Equivalent	Interpretation						
T 1 1 1:	1.16	•							
Technology and innovation	4.46		The indicator is seen, experienced, and/or being						
		Agree	done by the company/organization to Some						
			Extent.						
Knowledge in business	4.55	Agree	The indicator is seen, experienced, and/or being						
			done by the company/organization to a Great						
			Extent.						
Research and development	4.01	Slightly	The indicator is seen, experienced, and/or being						
		Agree	done by the company/organization to Some						



Extent. Marketing mix 4.43 Slightly The indicator is seen, experienced, and/or being Agree done by the company/organization to Some Extent. The indicator is seen, experienced, and/or being 4.35 Slightly Employee relations done by the company/organization to Some Agree Management function/skills The indicator is seen, experienced, and/or being 4.32 Slightly done by the company/organization to Some Agree Total The indicator is seen, experienced, and/or being 4.35 Slightly Agree done by the company/organization to Some Extent.

As a summary, the agribusiness practices on the knowledge in business got a mean of 4.55 and interpreted as the indicator is seen, experienced, and/or being done by the company/organization to a great extent; technology and innovation reflected a mean of 4.46, marketing mix got 4.43, employee relations garnered 4.35, management function/skills got a mean of 4.32 and research and development got an average of 4.01, which all have a descriptive equivalent of slightly agree, all are interpreted as the indicator is seen, experienced, and/or being done by the company/organization to some extent.

The level of implementation of agribusiness practices as to the use of technology and innovation, knowledge in business, research and development, marketing mix, Employee relations and management function or skills is evident and somehow practiced by agribusinesses across the Region. The extent of implementation is slightly observed and this should be sustained to gain high financial performance and success in the business operation is possible if these practices are manifested through joint effort of the owners and employees along with concerned agencies found in the locality.

3.4 The Perceived Level Of Financial Performance

Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. In this study, it is only the perceived financial performance of the agribusiness enterprise.

Five participants were asked about the effects or impacts of their practices to the level of their financial performances. All of the respondents said that the increase in sales leads to increase in profits. This theme basically expects after exhibiting different strategies, financial performance has improved.

Moreover, respondents were also asked about the challenges encountered in the business and how do they deal on it. One business owner on agri- fishery said that the biggest loss was brought by fish kill in 2017. It leads to the demolition of some fish cages in order to avoid the depletion of oxygen. Agribusiness owners who focused on vegetable and fruit-tree farming suggested that if happen the government should help the farmers in determining their market. They also said that the Department of Trade and Industry left them behind thus they are suggesting to the agency to work with them and help them.

In consonance with the problems raised, the theme highlights common problems encountered are attributed to government programs in which they are affected due to lack of coordination of Department of Trade and Industry which includes the limiting production capacity, lack of protection in terms of pricing and financing programs.

The quantitative data will give more light as to how business owners perceived the level of their practices improve their financial performance.

Table 3.17 Perceived level of financial performance

Tuble 3.17 Telectived level of infinite performance						
Indicators	Mean	Descriptive	Interpretation			
		Equivalent				
The enterprise has maintained an increasing	4.38	Slightly	The indicator is seen, experienced, and/or			
production yield.		Agree	being done by the company/organization to			
			Some Extent.			
The enterprise has maintained the adequate	4.19	Slightly	The indicator is seen, experienced, and/or			
cropping/harvest per year.		Agree	being done by the company/organization to			
			Some Extent.			
The enterprise has maximized the efficiency of	4.16	Slightly	The indicator is seen, experienced, and/or			
production process.		Agree	being done by the company/organization to			
			Some Extent.			
The enterprise has achieved the projected sales	4.02	Slightly	The indicator is seen, experienced, and/or			



per year.		Agree	being done by the company/organization to Some Extent.
The enterprise has achieved the projected profit per year.	3.97	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
The enterprise has minimized the projected expenses per year.	3.77	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.
Total	4.08	Slightly Agree	The indicator is seen, experienced, and/or being done by the company/organization to Some Extent.

The table shows the perceived level of financial performance of the agribusiness enterprises, specifically the enterprise has maintained an increasing production yield with a mean of 4.38; The enterprise has maintained the adequate cropping/harvest per year with a mean of 4.19; the enterprise has maximized the efficiency of production process, it got a mean of 4.16; with a mean of 4.02, the enterprise has achieved the projected sales per year; the enterprise has maximized profit per year with a mean of 3.97. Lastly, a mean of 3.77 shows that the respondents slightly agree that the enterprise has minimized the projected expenses per year and all interpreted as the indicator is seen, experienced, and/or being done by the company/organization to some extent The data on perceived level of financial performance as to maintaining an increasing production yield, maintaining the adequate cropping / harvest per year, maximizing the efficiency of production process, achieving the projected profit per year and minimizing expenses per year is evident having an impression of slightly agree. It is also evident that there are constant changes in terms of projected profit and minimization of expenses because the extent of expenditures per year depend on climactic condition in which growth of some agricultural products are interrupted due to weather extremities. Profitability of products may be disturbed because products will depend on the influx on the mode of consumption among the costumers. And sometimes profitability may be disturbed due to fluctuates on the demand and supply.

It can be observed further that the financial performance as to management on the production is evident and if sustained will create better opportunities for having high financial performance.

3.5 Test for Significant Relationship of the Independent and Dependent Variables

Table 3.18 Correlations Table

Financial Performance				
r	p-value		1	
Financial Performance			1.000	
Technology and Innovation			.511	.000
Knowledge in Business			.515	.000
Research and Development	Research and Development			.000
Markting Mix			.590	.000
Employee Relations			.319	.000
Management Functions/Skills			.471	.000

Table 3.18 shows the relationship of the following independent variables: technology and innovation, knowledge in business, research and development, marketing mix, employee relations, and management function/skills to the dependent variable which is the perceived level of financial performance. Both the direction and strength of relationship were depicted in the table. Since all of the coefficient is positive, it indicates the upward direction of the relationship. This simply means that, for every unit increase in the independent variables there is a corresponding unit increase in the dependent variable. Moreover, the strength of relationship was also reflected in the table. The employee relations, research development. and management function/skills offer moderate strength of relationship with Pearson Correlations of 0.319, 0.475 and 0.471 respectively. On the other hand, the following variables have a **strong relationship** to the dependent variable: technology and innovation (0.511); knowledge in business (0.515); marketing mix (0.590). As reflected also in the table, all of the variables Pearson Correlations are significant.

3.5.1 Model Summary

The model summary table reports the strength of the relationship between the model and the dependent variable. R, the multiple correlation coefficient, is the linear correlation between the observed and model-predicted values of the dependent variable. Its large value indicates a strong relationship.

Table 3.19 Model Summary

Model	el R R Adju		R Adjusted R Std. Error of the R S		R Square	are Change Statistics			Sig. F	Durbin-Watson	
Model	K	Square	Square	Estimate	Change	F Change	df1	df2	Change Duroni-v	Duroni- w atson	
1	0.737	0.544	0.537	0.472598879	0.007	4.883	1	325	0.028	1.635	

Predictors (Constant), Marketing Mix, Research and Development, Knowledge in Business, Technology and Innovation, Management Function/Skills

a. Dependent Variable: Financial Performance

Table 3.19 illustrates the model summary in which five (5) significant predictors were determined such as; marketing mix, research and development, knowledge in business, technology and innovation, management function/skills.

Moreover, the R Square or the coefficient of determination was also reflected at 0.544. This means that 54.4 percent of the variation of the perceived level of financial performance of the agribusiness enterprises in SOCCSKSARGEN maybe attributed to the variation of the five significant predictors such as: marketing mix, research and development, knowledge in business, technology and innovation, management function/skills. In addition, the adjuster R - square was 0.537 which simply means that 53.7 percent of the variation in the dependent variable maybe explained by the variation in the independent variables as adjusted for the number of independent variables being studied.

Standard error of estimates is the measure of variation of an observation made around the computed regression line. Simply, it is used to check the accuracy of predictions made with the regression line. Result shows that the standard error estimate is 0.472598879072664. The smaller the value of a standard error estimate the closer are the dots to the regression line and better is the estimate based on the equation of the line.

The Durbin - Watson statistic will always have a value between 0 and 4. A value of 2.0 means there is no autocorrelation detected in the sample. The Durbin - Watson result from this study revealed 1.635, this indicates positive autocorrelation.

The multiple regression analysis was performed to determine the prediction of the dependent variable. The five significant predictors have a significant positive and linear relationship and moderate predictive power. However, 46.3% of the variation of the Dependent Variable can be attributed to other factors not being measured in this study.

3.5.2 *ANOVA*

Analysis of variance (ANOVA) is an analysis tool used in statistics that splits an observed aggregate variability found inside a data set into two parts: systematic factors and random factors. The systematic factors have a statistical influence on the given data set, while the random factors do not (Will Kenton, 2019).

Table 3.20 ANOVA

		14	010 3.20 111 10 111			
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	86.470	5	17.294	77.430	$.000^{\rm f}$
	Residual	72.589	325	.223		
	Total	159.059	330			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Marketing Mix, Research and Development, Knowledge in Business, Technology and Innovation, Management Function/Skills

The generated model has an $F_{0.05} = 77.430$ with *p*-value = 0.000, therefore reject $H_0 = \beta_1 = \beta_2 = \beta_i$. Thus, there is

significant relationship present between perceived financial performance and the marketing mix, research and development, knowledge in business, technology and innovation, and management function/skills (Independent Variables).

Table 3.21 Coefficients

				Standardized		
		Unstandardi	zed Coefficients	Coefficients		
Mode	:1	В	Std. Error	Beta	t	Sig.
1	(Constant)	167	.224		744	.457
	Markting Mix	.318	.054	.301	5.943	.000
	Research and Development	.210	.033	.282	6.271	.000
	Knowledge in Business	.179	.052	.180	3.467	.001
	Technology and Innovation	.153	.044	.168	3.501	.001
	Management Functions/Skills	.118	.054	.114	2.210	.028

a

b. Dependent Variable: Financial Performance

Since all the coefficient of the independent variables are positive, the relationship is positive, that is perceived financial performance of the agribusiness in SOCCSKSARGEN (Region XII) increases as the value of

marketing mix (β = 0.318, p-value = 0.000), research and development (β = 0.210, p-value = 0.000), knowledge in business (β = 0.179, p-value = 0.001), technology and nnovation (β = 0.153, p-value = 0.001), and management



function/skills ($\beta = 0.118$, *p*-value = 0.028) increases except employee relations.

The table shows that the marketing mix reflects with highest standardized beta coefficient which entails that among the practices of agribusiness in SOCCSKSARGEN (Region XII), the marketing mix is the best predictor to the perceived financial performance of the agribusiness enterprises in the region.

In reality, we use the predict unstandardized values rather than standardized values because it reflects the contribution of the unit increase of the significant predictors to the dependent variable. For instance, 1 unit increase in marketing mix there is a corresponding increase of 0.318 in the perceived level of financial performance.

The hypotheses which states that, the business practices of the agri-business enterprises in SOCCSKSARGEN (Region XII) in terms of technology and innovation, knowledge in business, research and development, marketing mix, employee relations, and management function/skills have no significant relationship to the perceived financial performance of agribusiness enterprises of SOCCSKSARGEN (Region XII) was rejected.

3.6 Test for MRA Assumptions

3.6.1 Mulicollinearity

Multicollinearity is a state of very high intercorrelations or inter-associations among the independent variables. It is therefore a type of disturbance in the data, and if present in the data the statistical inferences made about the data may not be reliable.

Table 3.22 Coefficients Model

Model		Collinearity Statistics				
Mod	či	Tolerance	VIF			
5	(Constant)		1.3			
	Markting Mix	.547	1.827			
	Research and Development	.693	1.443			
	Knowledge in Business	.523	1.913			
	Technology and Innovation	.612	1.635			
	Management Functions/Skills	.530	1.888			

Model 5 from Table 3.22 (Coefficient table) shows that the tolerance of marketing mix (0.547), research and development (0.693), knowledge in business (0.523), technology and innovation (0.612), and management function/skills (0.530), which shows that it does not occur multicollinearity problem since the values are greater than 0.50 (minimum value is 0.523) and all its VIF (variance inflation factor) is less than 10. In this study, employee relations variable is drop (see correlations table).

For the coefficient of the chosen model:

Y = b0 + b1X1 + b2X2 + b3X3 + b4X4 + b5X5= -0.167 + 0.318X1 + 0.21X2 + 0.179X3 + 0.153X4 + 0.118X5 = -0.167 + 0.318 (Marketing Mix) + 0.21 (Research and Development) + 0.179 (Knowledge in Business) + 0.153 (Technology and Innovation) + 0.118 (Management Functions/Skills)

Where: Y = Dependent Variable

b0 = Constant or y-intercept Xi = Independent Variables

3.6.2 Outlier, Normality, Linearity, Homoscedasticity, Independence of Residuals

Outlier: An outlier is an observation in a set of data that is inconsistent with the majority of the data. Tabachnick and Fidell (2001) define outliers as those with standardized residuals values above about 3.3 (or less than -3.3).

Table 3.23 Casewise Diagnostics

Case	Std.			
Number	Residual	Financial Performance	Predicted Value	Residual
19	-3.327	3.0000000000000000	4.572396787535721	-1.572396787535721
267	-3.113	3.166666666666665	4.637663744735253	-1.470997078068586

An analysis of standard residuals was carried out on the data to identify any outliers, which indicated that participants 19 and 267 needed to be removed. In Casewise Diagnostics these two cases have found out that

have Std. Residual less than -0.3. This cases, the regression model poorly predicted their values. Scatter plot (*Figure 3.1*) provides visual confirmation of this.



Scatterplot

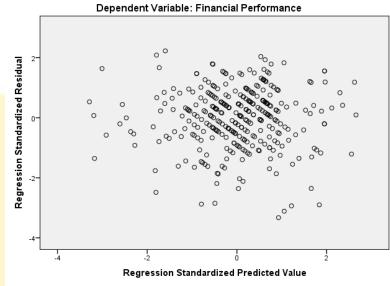


Figure 3.1 Scatterplot

Normality: A normality test is a statistical process used to determine if a sample or any group of data fits a

standard normal distribution. A normality test can be performed mathematically or graphically.

Table 3.24 Test of Normality

				- 7			
	Kolmogoro	Kolmogorov-Smirnova		Shapiro-Wilk			
	Statistic	Df	Sig.	Statistic	df	Sig.	
Standardized Residual	.050	331	.045	.982	331	.000	

In the descriptives table (see appendix), 5% trimemed mean = 0.0572, which is resonably high compare to the mean = 0.027852. The skewness = -0.5 indicates that the

values of the standardized residual are clustered to the right and the distribution is not symmetric.

Histogram

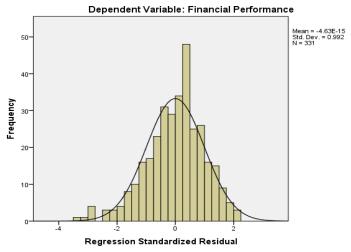


Figure 3.2 Histogram

The Histogram above shows that the regression standardized residual from a bell shape distribution which indicates the distribution is reasonably normal.

Normal P-P Plot of Regression Standardized Residual

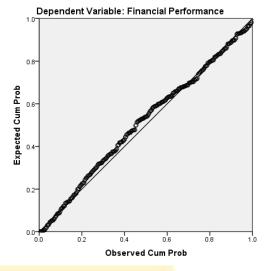


Figure 3.3 Normal P-P Plot of Regression Standardized Residual

Linearity: Linearity means that the predictor variables in the regression have a straight-line relationship with the outcome variable.

In the Normal P-P Plot of Regression Standardized Residual it showed that points were not completely on the line, but close. The Scatter Plot of standardized predicted values showed that the data met the assumptions of homogeneity of variance and linearity.

3.7 **Test for Significant Contingent Effect of** the Moderating Variables

To test for significant contingent effect of the moderating variable such as; length of business operation, type of business, type of management, position, and length of service, the hierarchical multiple regression - process by Dr. Hayes was used.

Table 3.25 Model Summary for Moderating Variable

	Original Model Summary	Model Summary 1	Model Summary 2	Model Summary 3
R	.737	.7434	.7412	.7467
R^2	.544	.5526	.5494	.5575
P	.000	.000	.000	.000

As reflected in the table, there were three (3) model summary generated, since there were five (5) moderating variables, the first two moderating variables such as the length of business operation and type of business was analyzed first; followed by the type of management and position; and lastly the length of service. As observed it was evident among the models generated that there was an increase of R and R² compared to the original model summary. The slight increase was attributed to the introduction of the moderating variables.

Table 3.26 Test of Highest Order Unconditional Interaction			
	P	Decision	
X*T	.4839	No Significant Contingent Effect	
X*U	.9366	No Significant Contingent Effect	
X*V	.0682	No Significant Contingent Effect	
X*W	.7757	No Significant Contingent Effect	
X*Z	.0016	With Significant Contingent Effect	

T = Length of Business Operation

W = Position

U = Type of Business

Z = Length of Service

V = Type of Management

X = Significant Predictor

The table show the individual contingent effect of the five moderating variables. The first four (4) moderating

variables offer no contingent effect to the relationship of the independent and dependent variables. However, only the length of service offers significant contingent effect as manifested by the p-value of 0.0016 (significant if less than 0.005).

Summary of Hypotheses 3.8

Table 3.27 Summary of Hypotheses	
H ₀₁ The business practices of the agribusiness enterprises in SOCCSKSARGEN	
(Region XII) in terms of technology and innovation, knowledge in business, research	Rejected
and development, marketing mix, employee relations, and management function/skills	



. Talangan kangan kang

have no significant relationship to the perceived financial performance of agribusiness	
enterprises of SOCCSKSARGEN (Region XII).	
\mathbf{H}_{02} There is no significant indicator among technology and innovation, knowledge in	
business, research and development, marketing mix, employee relations, and	Rejected
management function/skills that affects the perceived financial performance of	Rejected
agribusiness in SOCCSKSARGEN (Region XII)	
\mathbf{H}_{03} The length of business operation, type of business activities, type of management,	
position, and length of service have no significant contingent effect on the relationship	
of the technology and innovation, knowledge in business, research and development,	Failed to Reject
marketing mix, employee relations, and management function/skills and perceived	
financial performance of agribusiness enterprises of SOCCSKSARGEN (Region XII).	

The level of significance of the independent variables to the perceived financial performance of the agribusiness in SOCCSKSARGEN (Region XII) as indicated in the coefficient table as the value of marketing mix ($\beta=0.318,\,p\text{-value}=0.000),$ research and development ($\beta=0.210,\,p\text{-value}=0.000),$ knowledge in business ($\beta=0.179,\,p\text{-value}=0.001),$ technology and innovation ($\beta=0.153,\,p\text{-value}=0.001),$ and management function/skills ($\beta=0.118,\,p\text{-value}=0.028)$ implies that there is a significant relationship.

It can be observed that the marketing mix reflects with highest standardized beta coefficient which entails that among the practices of agribusiness in SOCCSKSARGEN (Region XII), the marketing mix is the significant indicator to the perceived financial performance of the agribusiness enterprises in the region. Among all moderating variable, only the length of service offers significant contingent effect.

3.9 Implications of the study to the Theory

The result of the study determined different agribusiness practices in SOCCSKSARGEN (Region XII) and their perceived financial performance. The theoretical gap pertaining to the different practices of agribusiness can fill in the result of the study. There are very few studies that are being published in the Philippines pertaining to the practices of agribusiness. There are related literature and studies being published but are of limited in terms of practices and non financial perceived financial performance.

The study on Impacts of Best Management Practices on Farm Financial Performance (Victoria, 2004) proves that the presence of strategic planning, technology adoption, human resource management and networking have a significant relationship on the increase of financial performance of the enterprise. This is also true from these study that the presence of the different practices obtained from the field have significant on the financial performance of agribusiness enterprises practitioners in SOCCSKSARGEN (Region XII).

The result of the study implies that employee relations have no significant effect on the perceived financial performance of the agribusiness in SOCCSKSARGEN (Region XII), which is contrast to the study of Cowling (2009) that lack of good employee relations with senior management hinders participation of junior staff in decision making process on matters relating to

implementation of organization strategic objectives and this negatively affects realization of increased organization performance. These findings also supported findings by Ulrich (2007) that working environment characterized with poor employee relations influences application of poor leadership styles that negatively affects realization of organization performance.

The result of this study provides opportunity to scholars to analyze technology and innovation, knowledge in business, research and development, marketing mix, employee relations and management function/skills and compare it to other practices in agribusiness in the Philippines that will give importance on the financial performance of different agribusiness practitioners.

3.10 Implications of the study to Practice

Content knowledge about the importance of different agribusiness practices through learning the theories and principles then put these into practice through application, is very important for the agribusiness practitioners in generating income. By looking into different practices of agribusiness, practitioners in agribusiness can be able to determine different strategies and techniques to increase the financial performance of their business.

The study has implication to further development and planning on the improvement of the current practices of the agribusiness enterprises. The findings on different practices is of big help in elevating production, operations, socio - economic and financial aspects of agribusiness practitioners.

On the field of public policy, the practices of agribusiness enterprises is of big help in determining specific needs of the industry and provide different strategies and techniques for the betterment of agribusiness not only in the region but in the Philippines.

3.11 Implications to Research

The study on practices of agribusiness in SOCCSKSARGEN (Region XII) and their perceived financial performance improved information about agribusiness practitioners. It is of great contribution in the success of the operations of the enterprises as these research discussed relationship of the financial performance to the different practices cited. Researches about agribusiness practices and financial performance of the enterprise will continue to grow.

The study is significant to the agribusiness practitioners, the government, the academe, and future researchers and



scholars. Agribusiness industry and the government will see the findings in the study relevant to policy implementations and strategic plannings for better agribusiness. The academe and researchers and scholars will find it interesting to conduct and explore more studies in agribusiness.

4. SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents the summary of findings, conclusions, and recommendations.

The main focus of this study is to determine the relationship of business practices of Agribusiness Enterprises in SOCCKSARGEN (Region XII) to the perceived financial performance. Specifically it tried to answer questions on: business practices of Agribusiness Enterprises in SOCCSKSARGEN (Region XII); the profile of Agribusiness Enterprises in SOCCSKSAGEN (Region XII) in terms of: length of business operation, type of business activities, types of management, position, and length of service; the level of business practices of Agribusiness Enterprises in SOCCSKSAGEN (Region XII) in terms of: technology and innovation, knowledge in business, research and development, marketing mix, employee relation, and management functions/skills; the level of financial performance of Agribusiness Enterprises in SOCCSKSARGEN (Region XII); and determine the length of business, type of business activities, type of management, and number of employees and their significant contingent relationship with agribusiness practices and the perceived financial performance.

4.1 **Findings**

1. The business practices of Agribusiness SOCCSKGEN (Region XII) as to technology and innovation, knowledge in business, research and development, marketing mix, employee relation, and management functions/skills is evident. agribusiness practices are results of conducted key informant interview and was analyzed through thematic analysis. As though result in the tabulated mean scores has an interpretation of slightly disagree, the data revealed that agribusinesses in the Region are practicing the variables used in this study being included on their management practices.

2. It was found out that profile of respondents as to length of business operation was dominated by agribusiness operated for 4-6 years at about 43% of the total samples respectively. It can be gleaned further that profile as to length of service is not considered as a determinant of financial performance. Profile as to type of business activities was dominated by agribusiness focused on crop production and fisheries. Profile of respondents as to type of management is led by sole proprietors and associations considering farm owners concentrate in cultivating their land and capitalize it for business opportunity while owners lived in coastal areas also concentrate in fisheries.

Profile of respondents as to position was dominated by employees and profile as to length of service was dominated by neophytes in agribusiness who were in the operation for 1-3 years and still gaining experience.

level agribusiness practices 3. The of in SOCSSKSARGEN (Region XII) revealed that the use of technology is evident as though got an impression of slightly Agree still agribusiness are equipped with machineries designed for specific purposes. The extent in knowledge in business revealed that both employees and owners have knowledge in running the business. Research and development is used. Hence management practices is supported and sustained through relevant findings sought by conducting cross sectional investigation in all aspect of the business. Marketing mix also revealed that most products found in the market are sustained with quality where costumers are given location benefits to its customers. The level of employee relation among agribusiness in the region is also evident where conflict management got the highest mean score of 4.45 respectively. The extent of management functions is being exercised with full responsibility and authority having a mean score of 4.47 and allows economic benefit among employees by giving them incentive and enough salary.

Over all it can be observed on data provided in the summary of level of Implementation of Agribusiness practices are all evident where Technology and innovation and knowledge in business are the best practices found on the data gathered

4. Perceived level of financial performance revealed that achieved projected profit per year challenged agribusiness. For some reasons, the products sold in the market and the quality of yield is affected by climactic conditions, having an interpretation of slightly disagree. The amount of expenditures per year is also the main concern because the agribusiness needs to update machineries to be used and other necessities. Overall, the extent of financial performance is dependent on the agribusiness' management practices. It can be observed further that the financial performance as to management on the production is evident and if sustained will create better opportunities for having high financial performance but it is sometimes disturbed due to inevitable phenomena like climactic condition and fluctuate in the demand and supply.

5. The employee relations, research and development, and management function/skills offer moderate strength of relationship with Pearson Correlations of 0.319, 0.475 and 0.471 respectively. On the other hand, the following variables have a strong relationship to the dependent variable: technology and innovation (0.511); knowledge in business (0.515); marketing mix (0.590). All the coefficient of the independent variables are positive, the relationship is positive, that is perceived financial performance of the agribusiness in SOCCSKSARGEN (Region XII) increases as the value of marketing mix, research and development, knowledge in business, technology and innovation, and management



function/skills (Independent Variables) increases except employee relations.

6. The hypotheses were studied and tested at 0.05 level of significance. Thus, the business practices of the agribusiness enterprises in SOCCSKSARGEN (Region XII) in terms of technology and innovation, knowledge in business, research and development, marketing mix, employee relations, and management function/skills have no significant relationship to the perceived financial performance of agribusiness enterprises of SOCCSKSARGEN (Region XII) was rejected.

7. The marketing mix reflects with highest standardized beta coefficient which entails that among the practices of agribusiness in SOCCSKSARGEN (Region XII), the marketing mix is the significant indicator to the perceived financial performance of the agribusiness enterprises in the region. The hypotheses which states that, there is no significant indicator among technology and innovation, knowledge in business, research and development, marketing mix, employee relations, and management function/skills that affects the perceived financial performance of agribusiness in SOCCSKSARGEN (Region XII) was rejected.

8. Only the length of service offers significant contingent effect. The four (4) moderating variables (Length of Business Operation, Type of Business Activities, Type of Management, and Position) offer no contingent effect to the relationship of the independent and dependent variables. However, only the length of service offers significant contingent effect as manifested by the p-value of 0.0016 (significant if less than 0.005). The length of business operation, type of business activities, type of management, position, and length of service have no significant contingent effect on the relationship of the technology and innovation, knowledge in business, research and development, marketing mix, employee relations, and management function/skills and perceived financial performance of agribusiness enterprises of SOCCSKSARGEN (Region XII) failed to reject the hypotheses.

5. CONCLUSIONS

Based on the findings the following are the conclusions: Agribusiness industries at the expense of attaining high financial performance, owners must consider the management practices that are essential to the business to prosper. It can be concluded based on the results of this study that SOCCSSKSARGEN (Region XII) has the potential to be in the frontline of growing economies in the country if these practices are sustained and maximized. Policy directions must be strengthened specially in the field of agricultural product innovation. Moreover, the management practices of agribusinesses are revealing an effective management practices that if sustained they will create more impact on the economy. The nature of products produced is necessary to meet local commodities and has the potential to be promoted in the global market. Agribusiness operators are adaptive to market trends where technology based equipment and other materials are now acquired for quality assurance products produced and offered.

Statement problem number 1. What are the business practices of agribusiness enterprises in SOCCSKSARGEN (Region XII)?

The business practices of agribusiness in SOCCSKGEN (Region XII) as to technology and innovation, knowledge in business, research and development, marketing mix, employee relation, and management functions/skills is evident from the themes of the conducted key informant interview. As though result in the tabulated mean scores, the data revealed that agribusinesses in the Region are practicing the variables used in this study being included on their management practices. The extent of implementation is slightly observed and agreed oftentimes but this should be sustained to gain high financial performance and success in the business operation is possible if these practices are manifested through joint effort of the owners and employees along with concerned agencies found in the locality.

Statement problem number 2. What is the profile of agribusiness enterprises in SOCCSKSARGEN (Region XII) in terms of: length of business operation, type of business activities, type of management, position, length of service?

Most of the agribusiness in SOCSSKSARGEN (Region XII) area is dominated by agribusiness owners who are 4-6 years in the business operation. SOCSSKSARGEN (Region XII) is known for its rich agricultural resources for having wide farmlands and that produces crops every year thus, crop production is the lead agribusiness in the locality. Fisheries through its leading companies surrounding Saranggani Bay, presence of two major lakes in the region such as lake Sebu and lake Lutayan have the potential to have high financial performance.

Consequently, most of the agribusiness as to forms of business ownership comprised mainly of sole proprietorship having 145 agribusinesses exist in the area. It can be shown on the data that this is true among agribusinesses whose prime agricultural products depend on crops. Most of the agribusinesses were dominated by 1-3 years in service.

Based on the frequency of positions, most of the respondents are employees as revealed by the sample taken from the field. This implies that big companies that operates agribusiness in SOCCSSKSARGEN (Region XII) are the frontiers of agribusiness in the region. These companies attract more employees to sustain its operation thus, making a big impact on the economy of the place.

Statement Problem number 3. What is the level of business practices of agribusiness enterprises in SOCCSKSARGEN (Region XII) in terms of: technology and innovation, knowledge in business, research and development, marketing mix, employee relations., and management function/skills?



The business practices of agribusiness SOCCSKSARGEN (Region XII) as to technology and innovation, knowledge in business, research and development, marketing mix, employee relation, and management functions/skills is evident. As though result in the tabulated mean scores, the data revealed that agribusinesses in the Region are practicing the variables used in this study being included on their management practices. The extent of implementation is slightly observed but this should be sustained to gain high financial performance and success in the business operation is possible if these practices are manifested through joint effort of the owners and employees along with concerned agencies found in the locality.

Statement problem number 4. What is the perceived level of financial performance of agribusiness enterprises in SOCCSKSARGEN (Region XII)?

Financial performance as to maintaining an increasing production yield, maintaining the adequate cropping / harvest per year, and maximizing the efficiency of production process is evident as though achieving the projected profit per year and minimizing expenses per year is not evident because the extent of expenditures per year depend on climactic condition in which growth of some agricultural products are interrupted due to weather extremities. Profitability of products may be disturbed because products will depend on the influx on the mode of consumption among the costumers. And sometimes profitability may be disturbed due to fluctuates on the demand and supply. Overall, the extent of financial performance is dependent on the agribusiness' management practices. It can be observed further that the financial performance as to management on the production is evident and if sustained will create better opportunities

Statement problem number 5. Would technology and innovation, knowledge in business, research and development, marketing mix, employee relations, and management function/skills have significant relationship to the perceived financial performance of agribusiness enterprises in SOCCSKSARGEN (Region XII)?

Technology and innovation, knowledge in business, research and development, marketing mix, and management function/skills have significant relationship to the perceived financial performance of agribusiness practitioners of SOCCSKSARGEN (Region XII) except for employee relations.

Statement problem number 6. What is the significant indicators of technology and innovation, knowledge in business, research and development, marketing mix, employee relations, and management function/skills that affects the perceived financial performance of agribusiness in SOCCSKSARGEN (Region XII)?

The marketing mix reflects with highest standardized beta coefficient which entails that among the practices of agribusiness in SOCCSKSARGEN (Region XII), the marketing mix is the significant indicator to the perceived

financial performance of the agribusiness enterprises in the region.

Statement problem number 7. Would the length of business operation, type of business activities, type of management, position, and length of service have significant contingent effect on the relationship of agribusiness practices and the perceived financial performance?

Only the length of service have significant contingent effect on the relationship of agribusiness practices in SOCCSKSARGEN (Region XII) and the perceived financial performance.

6. RECOMMENDATIONS

Agribusiness in SOCCSKSARGEN (Region XII) is usually sensitive to their financial position and in the area of economic development. However, the aforementioned themes indicate an urgent need to update the managerial practices of agribusiness operators, which increasingly must include principles of entrepreneurship considering the variables used in the study. This necessitates a revisiting of the strategic management of agribusiness, particularly in SOCCSKSARGEN (Region XII) where agriculture has a crucial role in the socioeconomic fabric. The length of business operation should be considered not as determinant of financial performance but a basis of strategic agribusiness planning systems to improve business operations from year to year. It may include the success stories and the challenges faced within a year as regards to yield and cost of production.

One of the crucial aspect in the company's success is marketing. If a business wants to developed and stretched a broader audience with its products and services, it will have to take some kind of activeness to help that audience find it. Businesses also need to influence prospective clients to select their products or services, instead of those offered by its competitors. Marketing is the total of those tactics and strategies a business uses to accomplish these goals. To ensure success, a business should take care to integrate a variety of strategies into its marketing plan. These strategies should reflect the reality of business operations as well as the company's goals for that product or service line. Successful marketing campaigns incorporate and utilize all of the strengths at hand while downplaying or containing the weaknesses. Agribusiness practitioners across the Region must create strong ties among Government agencies like Department of Trade and Industry (DTI), and Department of Labor and Employment to supplement necessary considerations on the mode of agribusiness operation. Policy directions are needed to maximize common local agricultural products like vegetable, fruit, agri-fisheries and other farm and aquatic resources thus, providing financial stability and those resources are allocated efficiently throughout the locality.



Considering agribusiness in SOCSSKSARGEN (Region XII) as to type of agribusiness ownership, Sole proprietors dominates among agribusinesses and that most of them rely heavily on both debt capital and own equity capital for production and marketing decisions. These decisions include financing capital assets, mechanizing and modernizing farming operations, and formulating marketing and production plans.

The study has an implication among agribusiness Owner and Employees. Hence, development trainings must be strengthened through intensive and extensive trainings and seminars which is hoped that relevant changes in the operations and production will attract more people to be in the industry, providing a venue to assist them through remote-monitoring techniques. Hence, new generations of agribusinesses must pay attention to employee development to attract talented partners like big companies who wish to acquire products from the local agribusinesses as a raw material for food processing and other innovative products. Consequently, owners and employee relations are an indicator of agribusiness success. Employees must create a sound environment where everyone is treated well so that the transfer of knowledge and sharing of experiences is evident in the lieu of agribusiness operation. They are hoped to established camaraderie and sound relationship among them in consonance with (Horrigan et al., 2002; Lubell et al., 2011), indicating that knowledge transfer, the sharing of experiences, environmental friendliness, humanitarian assistance, and social care are perceived as the social responsibilities of modern agribusinesses.

Moreover, Technology plays a vital role in the production process. In the lieu of increasing challenge of unpredictable weather patterns has become an increased risk and concern for food security. Investment towards decreasing these agriculture risks through irrigation use on land that face extremely dry conditions, technologies such as genetically engineered: herbicide and insecticide resistant seeds to reduce the amount of plants need to survive while produce high yields at the least amount of cost, and maintain the landscape through strong conservation and sustainability practices. Same to the agribusinesses, different kind of Agribusiness practitioners must allot funds for acquiring technological machines and medicines for high yield expectancy at a

This study also suggests that agribusiness owners in order to further financial stability, agriculture must take a foremost importance in upgrading technology innovation into one of the most demanding fields of the future. Agriculture must continue to do a respectable job in implementing policies such as, the young farmer program, which gives incentives and aids the younger generation to become operators and build a farming operation.

Research at the local -level would shed more light on factors that play a role in farm profitability and efficiency, which could prove helpful to neighbouring localities to learn best practices or management tactics to improve and TO CONTRACTOR OF THE PROPERTY OF THE PROPERTY

agricultural financial efficiencies. increase information is important to the policy making process an ensuring that all cities and municipalities in SOCCSKSARGEN (Region XII) area are maximizing agricultural production potential, providing financial stability, and that resources are allocated efficiently throughout the country.

This research provides baseline information which will compare with agriculture policy implementation over the census years such as updated and improved farm profitability to see if these benefits are being recognized in terms of their economic impacts in the agricultural sector.

7. REFERENCES

- [1] Adams, J. S. (1963) Toward an understanding of inequity. Journal of Abnormal and Social Psychology. Retrieved from https://pdfs.semanticscholar.org/1d65/68e33f2ffcccf76 d9c5b0a81657389d675cb. pdf, dated, August 29, 2013.
- [2] Adamowicz, M. (2005). Zarządzanie wiedza jako strategia budowania niematerialnych zasobów organizacji pracujących dla wsi i rolnictwa. In Zarządzanie wiedzą i informacją w organizacjach pracujących dla wsi i rolnictwa. Materialy konferencyjne. CBR, Warszawa, 2005. www.cbr.edu.pl. Retrieved from https://vua.uniag.sk/sites/default/files/VUA_01_16_K ania 02.pdf, dated, January 2005
- [3] Acs, Z.J., & Armington, C., (2006). Entrepreneurship, geography, and American economic growth. New York: Cambridge University Press.
- [4] Alarcón, S. and M. Sánchez (2016). "Is there a virtuous circle relationship between innovation activities and exports? A comparison of food and agricultural firms." Food Policy.
- [5] Anderson, B. L. (1992). Successful Curriculum Reforms: Sharing the Knowledge Policymakers and Practitioners in Ways That Influence Practice.Colorado University.Retrieved from http://www.aabri.com/manuscripts/09418.pdf
- [6] Anríquez, Gustavo, and Ramón López (2007), "The Effect of Agricultural Growth on Poverty in an Archetypical Middle Income Country: Chile in the 1990s," Agricultural Economics.
- [7] Audretsch, D.B., Lehmann, E.E., (2005). Mansfields's missing link: the impact of knowledge spillovers on firm growth. Journal of Technology Transfer.
- [8] Audretsch, D. B., et. al, (2006). Entrepreneurship. Economic growth and restructuring. Oxford University Press.
- [9] Baipheti M.N., Jacobs P.T. 2009. The Contribution of Subsistence Farming to Food Security South Africa.
- [10] Barbier, Kasem and Thapa.(2010). Sustainable Agricultural Development. Retrieved form, What



- Is Sustainable Agriculture? A Systematic Review. Sustainability 2015.
- [11]Benita M. Beamon, Burcu Balcik, (2008)
 "Performance measurement in humanitarian relief chains", International Journal of Public Sector Management, Vol. 21 Issue: 1, pp.4-25, https://doi.org/10.1108/09513550810846087
- [12] Bureau of Agricultural Statistics, 2013
- [13] Conway & E. G. Barbier 1990. After the green revolution: sustainable agriculture for development. Earthscan Publications Ltd, London.
- [14] Carlsson, B. (2006), Internationalization of Innovation Systems: A Survey of the Literature, Research Policy.
 Craig R. Carter, Dale S. Rogers, (2008) "A framework of sustainable supply chain management: moving toward new theory", International Journal of Physical Distribution & Logistics Management, Vol. 38 Issue: 5, pp.360-387, https://doi.org/10.1108/09600030810882816
- [15] Christine Greenhalgh & Mark Rogers, (2010). Innovation, Intellectual Property, and Economic Growth. Princeton University Press.
- [16] Chung, S. 2002. Building a national innovation system through regional innovation systems.

 Technovation.
- [17] Cullen, R., et al. (2013). "Non-adoption of environmental innovations in wine growing."

 New Zealand Journal of Crop and Horticultural Science.
- [18] Dakov, I., Novkov, S. (2008): Sustainable Supply chain management Scope, activities and interrelations with other concepts, in 5th International Conference on Business and Management 16-17 May 2008. Vilnius, Lithuania 640- 645.
 - Vilnius: Vilnius Gediminas Technical University Publishing House "Technika"
- [19] Davis, John Herbert and Goldberg, Ray Allan (1957).

 A Concept of Agribusiness. Division of Research,
 Graduate School of Business Administration, Harvard
 University, Digitized on March 11, 2009.
- [20] Erevelles, S. & Leavitt, C. (1992). A Comparison of Current Models of Consumer Satisfaction / Dissatisfaction Journal of Consumer Satisfaction /Dissatisfaction and Complaining Behavior. Retrieved from, https://www.researchgate.net/publication/258224400_ Consumer Satisfaction Theories A Critical Review. Dated, January 2008.
- [21] Everett M. Rogers (2003). Diffusion of Innovation, 5th Edition. New York: Free Press
- [22] Fiedler's Contingency Model: Matching Leadership Style to a Situation." Fiedler's Contingency Model. Retrieved from,
 - https://www.mindtools.com/pages/article/fiedler.htm. Dated, June 15, 2016.
- [23]Food and Agriculture Organization of the United Nations, 2014

- [24] Food and Agriculture Organization (FAO), 1994
- [25] Garcia, R. and Calantone, R. (2002) A Critical Look at Technological Innovation Typology and Innovativeness Terminology: A Literature Review. Journal of Product Innovation Management.
- [26] Göran Svensson, (2007) "Aspects of sustainable supply chain management (SSCM): conceptual framework and empirical example", Supply Chain Management: An International Journal, Vol. 12 Issue: 4, pp.262-266, https://doi.org/10.1108/13598540710759781
- [27] Harwood, R.R. (1990). A history of sustainable agriculture. p. 3-19. In: C.A. Edwards, R. Lal, P. Madden, R. Miller and G. House (eds.). Sustainable Agricultural Systems. Soil and Water Conservation Society, Ankeny, IA.
- [28] John Beddington, (2010). Food security: contributions from science to a new and greener revolution
- [29] Janssen, S. and M. K. Van Ittersum (2007).
 "Assessing farm innovations and responses to policies: A review of bio-economic farm models."
 Agricultural Systems.
- [30] Janssen, S., et al. (2011). "Linking models for assessing agricultural land use change."

 Computers and Electronics in Agriculture
- [31] Johnson, L.S. (2005). From Knowledge Transfer to Knowledge Translation: Applying Research to Practise. Developing Expert Practice, CAOT Publications ACE.
- [32] Joseph. A. Schumpeter, (1934). Innovations Theory of Profits
- [33] Karl E. Weber, (2000) "Problems to agricultural sustainability in developing countries and a potential solution: diversity", International Journal of Social Economics, Vol. 27.
- [34] Klerkx, L. Leeuwis, C. 2009. Shaping Collective Functions in Privatized Agricultural Knowledge and Information Systems: The Positioning and Embedding of a Network Broker in the Dutch Dairy Sector. In The Journal of Agricultural Education and Extension, vol. 15.
- [35] Lang, (2010). Journal of Agrarian Change.
- [36] Lee, S. Y., Florida, R., & Acs, Z. J. (2004). Creativity and entrepreneurship: A regional analysis of new firm forma tion. Regional Studies.
- [37] Leo Horrigan, Robert S Lawrence, and Polly Walker, (2002). How sustainable agriculture can address the environmental and human health harms of industrial agriculture.
- [38] Leeuwis, C. Ban, A.v.d. (2004). Communication for rural innovation: rethinking agricultural extension. Oxford Blackwell Science
- [39] Linton, J., Klassen, R., and Jayaraman, V. (2007). Sustainable supply chains: An introduction. Journal of Operations Management, 25 (6), 1075–1082.
- [40] Lomas, J. (1993). Diffusion, Dissemination and Implementation. Who Should Do What? In Annals of the New York Academy of Sciences. Retrieved from

Ö.



- https://www.degruyter.com/downloadpdf/j/vjbsd.2016.5.issue-1/vjbsd-2016-0002 /vjbsd-2016-0002.pdf. Dated, 2016.
- [41]Long, T. B., et al. (2016). "Barriers to the adoption and diffusion of technological innovations for climate-smart agriculture in Europe: evidence from the Netherlands, France, Switzerland and Italy." Journal of Cleaner Production.
- [42] Marsden T K, Banks J, Bristow G. (2001). Food supply chain approaches: exploring their role in rural development.
- [43] Mark Hirschey (2008). Managerial Efficiency Theory of Profits
- [44] Mckersie, B. (2015). Planning for food security in a changing climate.
- [45] Moreddu, C. Poppe, K.J. (2013). Agricultural Research and Innovation Systems in Transition. In EuroChoices, vol. 12, 2013.
- [46] Morris, M., M. Mekuria, and R. Gerpacio, (2003). Impacts of CIMMYT maize breeding research. pp. 135-159. In: Evenson R.E. and D. Gollin (eds.). 2003. Crop variety improvement and its effect on productivity: the impact of international agricultural research. FAO, London.
- [47] Nickel et al., (2002). The Changes of the Agribusiness impact on the competitive environment of agricultural enterprise.
- [48] National Economic and Development Authority, 2010
- [49] National Economic and Development Authority, 2017
- [50] OECD, Organisation for Economic Co-operation and Development; Eurostat, Statistical Office of the European Union, (2005). Manual de Oslo: guía para la recogida e interpretación de datos sobre innovación. 3rd ed. Grupo Tragsa, Madrid, Spain.
- [51] Oliver R. L. & DeSarbo, W. S. (1988). Response Determinants in Satisfaction Judgment, Journal of Consumer Research. Retrievedfrom, https://www.researchgate.net/publication/258224400 Consumer Satisfaction Theories A Critical Review. Dated, January 2008.
- [52] Oliver, R.L. and Swan, J.E. (1989) Consumer Perceptions of Interpersonal Equity and Satisfaction in Transactions: A Field Survey Approach. Journal of Marketing. Retrieved from American Journal of Industrial and Business Management, Vol.7 No.5, May 27, 2017.
- [53] Pamela Ronald and Raoul Adamchak, (2010). The Future of Sustainable Food Production.
- [54] Pedersen, E. R. (2009). The many and the few: rounding up the SMEs that manage CSR in the supply chain. Supply Chain Management: An International Journal.
- [55] Philippine Statistic Authority, 2016
- [56] Pray, C.E. and L. Nagarajan, (2012). Innovation and research by private agribusiness in India. IFPRI Discussion Paper 01181. Environment and Production

Technology Division, International Food Policy Research Institute, Washington DC.

- [57] Purba Rao, Diane Holt, (2005) "Do green supply chains lead to competitiveness and economic performance?", International Journal of Operations & Production Management, Vol. 25 Issue: 9, pp.898-916, https://doi.org/10.1108/01443570510613956
- [58] Qureshi, M. E., Dixon, J & Woo, M. (2015). Public policies for improving food and nutrition security at different scales. JFS, 7 (2), 393-403.
- [59] Reuter et al. (2010). Sustainable Global Supplier Management: The Role of Dynamic Capabilities in Achieving Competitive Advantage.
- [60] Rynes, S.L. Bartunek, J.M. Daft, K.L. (2001).

 Across the Great Divide: Knowledge Creation and Transfer Between Practitioners And Academics. In Academy of management Journal, vol. 44, 2001, no. 2.
- [61] Rezaei-Moghaddam, K. and S. Salehi (2010).

 "Agricultural specialists' intention toward precision agriculture technologies: integrating innovation characteristics to technology acceptance model."

 African Journal of Agricultural Research.
- [62] Rudman, C. (2010). Agricultural Knowledge Systems in Transition: Towards a more effective and efficient Support of Learning and Innovation Networks for Sustainable Agriculture (SOLINSA). Project description, 2010.
- [63] Seuring, S. and Müller, M. (2008) From a Literature Review to a Conceptual Framework for Sustainable Supply Chain Management. Journal of Cleaner Production
- [64] Smith, J. (2008). Greenhouse gas mitigation in agriculture. Philosophical Transactions of the Royal Society.
- [65] Srinivasan, P.V. and S. Jha. (2002). Globalization and public agricultural research in India pp. 103-122. In: Bigman, D. (ed.). Globalization and the developing countries: Emerging strategies for rural development and poverty alleviation. CABI; ISNAR. Oxon, UK.
- [66] Stefanis, C. (2014). Global Food Security: An Agricultural Perspective. Aristotle University of Thesaloniki. Faculty of Agriculture. Department of Food Science and Technology. Greece. Journal of Agriculture and sustainability, Vol 6, Number 1, 2014.
- [67] Thamaga-Chitja, J. M. & Morojele, P. (2014). The context of smallholder Farming in South Africa: Towards a Livelihood Asset Building Framework. Hum Ecol, 45 (2), 147-155.
- [68] United Nations, Millennium Development Goals, 2000
- [69] Van den Ban, A.W. (1997). Successful extension organisations are learning organisations. In: R.K. Samanta and S.K. Arora (eds.). Management of agricultural extension in global perspective. Delhi, B.R. Publishing Corporation.

Ö



[70] Vink, N. & Kirsten J. (2013). Agriculture in the national economy, in: Nieuwoudt. L. and Groenewald. J (eds). The challenge of change: agriculture, land and the South Africa economy. Pietermaritzburg. University of Natal Press. South Africa.

- [71] Weng, Sho-chi (2000). Mass Communication Theory and Practice. Taipei: San-ming. Retreived from, https://www.utwente.nl/en/bms/communication-theories/sorted-by-cluster/Mass% 20Media/knowledge_gap/Woodruff, R. B.; Ernest, R. C.; Jenkins, R. L. (1983). Modeling Consumer Satisfaction Processes Using Experience-Based Norms, Journal of MarketingResearch.Retrievedfrom, https://www.researchgate.net/publication/258224400 Consumer Satisfaction_Theories_A_Critical_Review.
 Dated, January 2008.
- [72] World Bank, 2010
- [73] Wright, B.D. and T.M. Shih. (2010). Agricultural innovation. Working Paper 15793. National Bureau of Economic Research, Cambridge, UK.
- [74] www.industry.gov.ph/securing the future of Philippine industries
- [75] Zaklad, A. et al. (2003). A new approach to sustainable supply chain excellence available at http://www.profitpt.com (accessed on 23 December 2010)
- [76] Zhu et al. (2008). The role of organizational size in the adoption of green supply chain management practices in China