TECHNIUM
SOCIAL SCIENCES JOURNAL

Vol. 22, 2021

A new decade for social changes

www.techniumscience.com

ISSN 2668-7798

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

Demographic profile, production and marketing management of native pig raisers in the three largest island in the province of Romblon, Philippines

Ken N. Falculan

Romblon State University Odiongan, Romblon, Philippines

ken.falculan@lspu.edu.ph

Abstract. This study was conducted to determine and evaluate production, management, marketing practices and the profitability of production of native pig raisers in the three largest island in the Province of Romblon. This study used the descriptive research design, the data gathered were statistically analyzed using frequency/percentage and mean. From the analysis and interpretation conducted it was found out that the oldest pig raisers is 73 years old, female, married, high school graduate, engage in farming with estimated monthly income of P3,000-5,000, having 3 members in the family and manage pigs through personal experience; adopted combination of fattening and breeding, with a meager capital and raised 3- 4 pigs throughout the years of raising swine; breed through natural mating and the source of boar is within the pigpen and others from rental/sharing. The pigs were fed with a combination of commercial, local and leftover feeds using a movable federer. Majority of the piggeries were located at the upland areas, tethered, tied under the tree and the pigpen was constructed at the ground; buried their carcass waste to avoid common environmental issues; and the majority of the pig raisers applied antibiotics to cure diseases in their pigs. The pig raisers always rear pigs to meet emergency household expenses; never sell pigs in terms of barter or exchange of other goods; and due to low cost requirements.

Keywords. Tablas, Sibuyan, Romblon, management, native pig

Introduction and Background of the Study

Changes of the national and international pig market have brought new challenges for pig production. This is not only because new legislations are continuously established, but also because the consumers are becoming increasingly conscious. High expectations on production and product quality by the consumers are forwarded to the meat processing industry and thus to the pig producers. The high economic pressure of decreasing prices for pork and the expectation of maintaining high product quality increase the interest for optimizing the efficiency of pig production.

Currently the world's pool of animal genetic resources is rapidly shrinking, with rapid and uncontrolled loss of breeds and conjointly their often uncharacterized genes. Nearly 100 livestock breeds have gone extinct between 2000 and 2014 (Food and Agriculture Organization, 2007). With the loss of these breeds comes the loss of their unique adaptive traits, which are often under the control of many different genes and complex interactions between the genotype and

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

the environment. In order to protect these unique traits, and the diversity they allow, collaborative global efforts towards the characterization and management of these genetic resources must be made (FAO, 2015). The Food and Agriculture Organization (2015), indicates that the diverse species and breeds of animals currently available for food and agriculture production may be underestimated due to the classification of risk extinction in which 17% of the world's farm animal breeds are at risk, and 58% are of unknown risk status.

Despite being dynamic and technologically advanced, the local pig industry is still confronted with inefficiency of production due to low sow productivity, high mortality due to inefficient diagnostic tools, and lack of native pig genetic resource conservation, improvement and utilization initiative. The Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development of the Department of Science and Technology (DOST-PCAARRD) supported research and development (R&D) initiatives through the Industry Strategic science and technology (S&T) Program (ISP) for Swine. The program aims to address the current problems by developing technologies and systems that are expected to improve productivity and production efficiency. With these initiatives, the program seeks to create new opportunities and increase the overall competitiveness of the Philippine swine industry. For the development of native pig breeds in the Philippines, the initial breeding population was established and criteria for selecting of breeder native pig were developed.

Thus, swine production plays a major role in ensuring the country's food security by providing animal meat for consumption of Filipinos. The Philippine swine industry elevates the volume of pork production and number of breeding sows for production and marketing to elevate the economic status of farmers. Livestock Research Division, DOST-PCAARRD S&T Media Service, (2016).

Methodology

Enumerated below are the components of this section. It includes the research design, population and samples of the study, sampling techniques, materials, special techniques and procedures, data gathering procedure, and data processing and statistical procedure.

This study used descriptive research designs. The principal aim in employing descriptive methods is to evaluate the demographic profile of hog raisers; and to identify the production, management and marketing practices of hog raisers. Thus, the descriptive method of research was used in Study 1 and 2 because; it describes and interprets what is. It concerns conditions of relationships that exist; practices that prevail; beliefs, processes that are going on; effects that are being felt, or trends that are developing, (Calderon and Gonzales, 1993).

Subject of the Study

The population of the study was the native pig raisers located in the three largest islands in the Province of Romblon namely: Tablas, Romblon and Sibuyan. They were identified by consulting the Municipal Agriculturists of the province and serve as respondents of the study for the purpose of characterizing the phenotypes, identifying population structure of native pigs and the production, management and marketing practices being employed by local farmers.

Materials

The materials and equipment that was used in the study were as follows: Using questionnaire is the research instrument used in the study; record book, ballpen and bag. Global Positioning System (GPS) Garmin eTrex 30 model to record geographical distance and elevation.

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

Research Procedure

- The research procedures used to determine the production, management and marketing practices are as follows:
- Courtesy call to the Provincial Agriculture Office to conduct research regarding native pigs;
- Prepared request letter to the Provincial Agriculture Office for the listings of Municipal Agriculture Officer of the different Municipality;
- Sought approval from the Municipal Agriculture Officer for the identification of native pig raisers in the province;
- Courtesy call to the Barangay Officials of every Municipality for the conduct of the research study;
- Prepared questionnaire;
- Conduct survey and interview;
- Analyzed the data gathered

Data Gathering Procedure

This study was conducted at the three largest islands in the province of Romblon namely: Tablas, Romblon and Sibuyan Islands. Upon approval from the appropriate officials of the Laguna State Polytechnic University Graduate Studies and Applied Research, the following data gathering procedure was conducted:

The production, management and marketing practices employed by native pig raisers the main instrument in gathering data was the questionnaire. The instrument was distributed to the respondents to answer the questions followed by unstructured interviews needed in the study. Retrieval of questionnaire was done immediately to minimize the loss of data.

Data Processing and Statistical Procedures

The data that was gathered from the respondents and experimental procedure was statistically analyzed using the Special Program for Social Sciences (SPSS) version 2.0. The statistical tools employed in analyzing the data of the study were as follows:

Using frequency count/percentage is the statistical tools used to analyze the profile of native pig raiser as to age, gender, civil status, educational attainment, household size, estimated family monthly income, and relevant training.

Weighted mean was used to determine the extent of the production and management practices employed by native pig raisers in relation to housing management, feeding and water management, waste management, breeding management, and health management; and the marketing practices employed by native pig raisers with regards to utilization, selling, and preferences. Analysis of variance was used to compare the difference in the production, management and marketing practices employed by native pig raisers.

Result and Discussion

1. Profile of Native Pig Raisers in the Province of Romblon

1.1 Profile of the respondents

Table 1 reflects the socio demographic profile of the swine raisers in the province of Romblon. Results revealed that the majority of the respondents in Tablas Island engaged in this venture were males and only few were females while in Sibuyan Island majority of the respondents were females because male farmers worked at the field and some of them were working at the mountain for their living. This could be attributed to the fact that swine requires labor; hard

TECHNIUM SOCIAL SCIENCES JOURNAL

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

work and perseverance especially during farrowing time and heavier tasks were entrusted to males.

There was a remarkable interest and industry showed on this venture by 46-50 years old over those from ages 21-45 years old. Strenuous work is needed to raise pigs in the backyard. The primary goal of pig raising is for acquiring income and most of these however, all of them have gone to school and are married.

For them, this venture does not need high educational qualifications. Farming was the main source of family income with a result of 13 total respondents or almost 66.67 percent all other occupations had a low percentage. Income of a family plays an important role in shaping the economic condition of an individual in the family which in turn is likely to have bearing on the responses about problems posed to them.

It is evident that in Tablas Island 38.50% of respondents has the least income while 7.70% and an average income from P7,001.00-P9,000.00 and more than P11,000.00 respectively, whereas in Sibuyan Island 62.50% have an average income of P3,000.00-P5,000.00 and the rest of the respondents have a monthly income of less than P3,000.00.

To augment their meager income, they coupled it with backyard swine raising, since this venture as cited by Asuncion and Oliver (2001) was considered as the "piggery bank" of every Filipino Family. Household size gets socialized and of immense importance in deciding his values, beliefs and behaviors which are likely to affect his/her attitudes towards a particular role they play in giving response to individual needs which is important to understand the family type of the respondents. As shown on Table 1, 30.80% of household size found in Tablas Island has 5-6 members, and 7.70% of the

respondents have a household size of less than 3 members and 11-12 members respectively.

Most of the respondents do not have relevant training or seminars attended relative to swine raisins but they were able to raise pigs based on their personal experience. Thus, most of the respondent's pig raising is deemed as important money as saving practice. The profile of native pig raisers in the province of Romblon was presented on Table 1.

Table 1. Profile of native pig raisers in the province of Romblon

Respondents	PROFILE							
	Age	Gender	Civil Status	Educational Attainment	Occupation	Income (in pesos)	Household size	Relevant training
Tablas:								
1	49	Female	Married	Elementary level	Farming	Less than P3,000	4	Personal experience
2	33	Male	Married	High School graduate	Farming	P5,001-7,000	3	Personal experience
3	24	Male	Married	High School graduate	Farming	Less than P3,000	3	Personal experience
4	64	Male	Married	Elementary graduate	Farming	Less than P3,000	2	Personal experience
5	28	Female	Married	College level	Farming	5,001-7,000	3	Personal experience
6	73	Female	Married	Elementary graduate	Farming	Less than P3,000	2	Personal experience
7	48	Female	Married	College graduate	Farming	5,001-7,000	5	Seminar

TECHNIUM SOCIAL SCIENCES JOURNAL

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

8	54	Male	Married	Elementary graduate	Farming	Less than P3,000	3	Seminar
9	38	Male	Married	Elementary level	Farming	P3,000-5,000	3	Personal experience
10	48	Male	Married	College level	Carpentry	P3,000-5,000	4	Personal experience
11	47	Female	Married	Elementary graduate	Carpentry	P7,001-9,000	5	Personal experience
12	47	Female	Married	College graduate	Government employee	More than P11,000	6	Personal experience
13	33	Male	Married	High School graduate	Farming	P5,001-7,000	3	Personal experience
Mean	46.08	-	-	-	-	2.38	3.31	-
Sibuyan:								
1	57	Male	Married	High School graduate	Farming	P3,000-5,000	2	Personal experience
2	57	Female	Married	College graduate	Farming	Less than P3,000	9	Personal experience
3	47	Female	Married	High School graduate	Farming	Less than P3,000	7	Personal experience
4	41	Female	Married	High School graduate	Housewife	P3,000-5,000	5	Personal experience
5	70	Female	Widower	Elementary level	Farming	P3,000-5,000	6	Personal experience
6	40	Female	Married	High School graduate	Housewife	P3,000-5,000	5	Personal experience
7	41	Male	Married	High School graduate	Carpentry	P3,000-5,000	5	Personal experience
8	52	Female	Married	Elementary level	Housewife	P3,000-5,000	10	Personal experience
Mean	50.63	-	-	-	-	1.63	6.13	-
Romblon Province								
Grand Mean	48.36	-	-	-	-	2.01	4.72	-

TECHNIUM SOCIAL SCIENCES JOURNAL

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

2. Production Management of Native Pig Raisers in the Province of Romblon

2.1 Production Practices

It can be observed from the data on Table 2 that out of 13 respondents, 12 of them responded that the production scheme adopted by them is a combination of fattening and usually for breeding purposes. It is because it is a good source for roasted pig "*lechon"* or hog fattening. Though it is the most popular scheme, still others prefer fattening and the least in the combination of breeding and fattening. The table also reflects that most of the swine raisers have only meager capital throughout the year and raising swine for 3-4 heads.

Table 2. Production management practices

Indicators	Tablas		Sibuyan		Romblon Province	
	Freq	%	Freq	%	Freq	%
Production scheme adopted:						
Breeding	-	-	2	25.00	2	9.52
Fattening	1	7.70	2	25.00	3	14.29
Combination	12	92.30	4	50.00	16	76.19
Capitalization						
P1,000.00 – 3,000.00	11	84.60	7	87.50	18	85.72
P3,001.00 – 6,000.00	1	7.70	1	12.50	2	9.52
P6,000.00 and above	1	7.70	-	-	1	4.76
No. of years in pig raising:						
1 – 5 years	2	15.40	3	37.50	5	23.81
6- 10 years	3	23.10	3	37.50	6	28.57
11 – 15 years	4	30.80	2	25.00	6	28.57
more than 15 years	4	30.80	-	-	4	19.05
No. of pig raised:						
1 – 2	2	15.40	6	75.00	8	38.09
3 – 4	6	46.20	1	12.50	7	33.33
5 – 6	3	23.10	-	-	3	14.30
7 – 8	-	-	-	-	-	-
9 – 10	-	-	1	12.50	1	4.76

TECHNIUM SOCIAL SCIENCES JOURNAL

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

10 and above	2	15.40	-	-	2	9.52

2.2 Breeding Management

Breeds must be selected by the hog raisers according to their characteristics to suit his objectives. Table 3 shows the breeding management practices of the respondents. It could be deduced from the findings that most of the respondents prefer gilts/sow to raise over other types. This is followed by weanling and boar with 11 gilt/sow and 3 boars in Tablas Island and 7 gilt/sow, 1 boar and 1 weanling in Sibuyan Island respectively.

Respondents differ in the purpose of raising pigs. Majority of them raised native pigs for fattening. Selection of swine breeds is an important aspect that affects the performance of the swine production as asserted by Bundy 1975 cited by (Pinogan, 2007).

The respondents were already aware of selecting a breed to raise. Native pig is the breed that is adaptable to their locality. They attest that when this breed is fed nutritious feed and managed well, maximum productivity is attained as this is also confirmed by the findings of PCARRD (2006). Natural mating is widely used among the respondents in multiplying their animals. They use the natural mating especially if the boar is within the pig pens while other respondents used the rental/sharing boar services.

Table 3. Breeding management practices of native pigs in Romblon.

Indicators	Tablas		Sibuyan		Romblon Province	
	Freq	%	Freq	%	Freq	%
Types of native pigs raised:						
Weanling	-	-	1	11.11	1	4.35
Gilt/sow	11	78.57	7	77.78	18	78.26
Boar	3	21.43	1	11.11	4	17.39
Purpose of raising:						
Fattening	7	50.00	6	66.67	13	56.52
Breeding	7	50.00	3	33.33	10	43.48
Types of breed raised:						
Landrace	-	-	1	11.11	1	4.76
Native	13	100.00	8	88.89	21	95.24
Methods of breeding:						
Natural mating	13	100.00	8	100.00	21	100.00
Source of boar:						
Within the pigpen	9	69.23	1	12.50	10	47.61
Rental/sharing	4	30.77	7	87.50	11	52.39
Sources of stock:						
Neighbors	2	11.76	-	-	2	8.33
Borrow	-	-	1	14.29	1	4.17
Buy	15	88.24	6	85.71	21	87.50

TECHNIUM SOCIAL SCIENCES JOURNAL

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

Age of breeding sow:						
Less than 6 months	2	50.00	1	20.00	3	33.33
6-12 months	1	25.00	4	80.00	5	55.56
More than 12 months	1	25.00	-	-	1	11.11
Age of replacement stock:						
1-4 months	4	80.00	1	100.00	5	83.33
5-8 months	1	20.00	-	-	1	16.67

2.3 Feed and Feeding Management

The feed is an important item in the cost production of animals and their products. Good feed is necessary for the growth and body maintenance. Locally available feeds are less expensive but can be nutritional completely when properly prepared for feeding (FAO, 2009).

When asked about the feeds and feeding practice, the 13 respondents revealed the following practices that were presented in Table 4. The 50 percent commercial and 50 percent local feeds were the common feeding ratios used by the respondents. It can also be gleaned from the same table that 25 percent commercial, 75 percent local feeds and the 100 percent local feeds (leftover) were predominantly used by the same number of respondents. The respondents practiced this type of feeding management due to high prices of commercial feeds. That is why they resorted to mixed feeding such as commercial, local and left over feeds.

According to Eusebio (2007), swine is an omnivorous animal. Being voracious eaters, pigs consume different kinds of feeds and can live on leftover foods, vegetable peeling, stem trimmings and wasted fruit but it is their concern to minimize the cost of feeds without affecting the health and vigor of the animals. Proper feeding and nutrition are not enough for a successful swine production. Methods of feeding could also result in better growth and more economical feeding. Respondents do some practices in feeding their animals like flaking of old oil can, calling their pig by shouting "idik-idik" means piggy. The pig raisers had an old tradition by putting turtle inside the food bin of pigs to become resistant to disease. The respondents said, "*nagabutang kami ng bao sa pakaonan ng baboy para hindi magkasakit"*.

The popular manner of feeding employed by the respondents is the use of a movable feeding trough made up of old truck tires so that pigs cannot lie on it and contaminate the feeds. Other respondents deemed it convenient to use the movable feeder especially if the pig is brought out from the pig pen. It conforms to the study of Supnet 1978 cited by Estal (2004), stating further that "trough feeding" is better than floor feeding because it reduces feed wastage and spoilage.

Table 4**.** Feeds and feeding practices of native pigs in Romblon.

Indicators	Tablas Island		Sibuyan Island		Romblon Province	
	Freq	%	Freq	%	Freq	%
Feeding ratios:						
50% commercial + 50% local	4	30.80	3	37.50	7	33.33
25% commercial + 75% local	4	30.80	1	12.50	5	23.82

TECHNIUM SOCIAL SCIENCES JOURNAL

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

100% local feeds (left over)	4	30.80	3	37.50	7	33.33
100% commercial	1	7.70	1	12.50	2	9.52
Manner of feeding:						
Feeding trough	3	23.1	1	12.5	4	19.05
Movable feederer	10	76.9	7	87.5	17	80.95

2.4 Housing Management

The housing management practices of the backyard native pig raisers are presented in Table 5. A pig is provided with a house for comfort, protection and feeding purposes. It need not necessarily be an expensive house.

The data presented on the table states that the large number of the respondents' piggeries was located at upland areas which has 84.60% for Tablas Island while 62.50% in the coastal areas in Sibuyan Island. Majority of the pig raisers in Tablas Island (61.50%) and Sibuyan Island 87.50% tethered their pigs under the trees as temporary sheds in which the pigs of the respondents in the island were only at the ground. Bogawit (2013) investigated that housing management and equipment must be provided to the pigs with a favorable environment for effective production. According to Poole et. al (2010), housing was prioritized for weak animals, pregnant sow and piglets due to their vulnerability to adverse weather conditions and diseases. Pig house should be constructed near the water supply to facilitate bathing of pigs, cleaning of pig pens and alleys of the pen as reflected in the Swine Farming Manual (2000). It need not be spacious but provides proper ventilation. To protect the pigs from adverse conditions and to keep them safe, pens were constructed beneath the house with concrete flooring.

Raisers who owned one or two pigs do not have permanent pens; they just tie their pigs under the tree and temporary sheds. With these shelters used, the pigs were only at the ground, Lanada et al. (2003), cited that pigs on earth flooring were more susceptible to parasites and diseases. Backyard Swine Raising is a home-based enterprise through which a family can earn a good income.

Table 5. Housing management of native pigs in Romblon.

Indicators	Tablas Island		Sibuyan Island		Romblon Province	
	Freq	%	Freq	%	Freq	%
Location of piggery:						
Upland	11	84.60	-	-	11	52.38
Lowland	2	15.40	3	37.5	5	23.81
Coastal	-	-	5	62.5	5	23.81
Methods of restrain:						
Pens	1	7.70	1	12.5	2	9.52
Tethering	8	61.50	7	87.5	15	71.44
Combination	2	15.40	-	-	2	9.52
Others	2	15.40	-	-	2	9.52

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

Shelter used:						
Shed	5	38.50	1	12.5	6	28.57
Under the tree	7	53.80	7	87.5	14	66.67
Beneath the house	1	7.70	-	-	1	4.76
Floor construction:						
At the ground	9	69.20	6	75.0	15	71.43
Concrete	4	30.80	1	12.5	5	23.81
Others	-	-	1	12.5	1	4.76

2.5 Waste Management

The waste management employed by pig raisers both in Sibuyan and Tablas Island was by burying. Respondents stated in there vernacular word "*ginalubong namon ang amon baktin kon may napatay sa sakit o kon ano man, ga kotkot kami sang buho nga dalom kag ginahulog namon ang patay didto tapos hai gina butangan sang bato agod di makotkot sang ayam kag ginatabunan lugta" when* there was a dead animal they dig a hole and they dump the dead animal in it, and they covered it with stone and soil so that predator cannot dig it.

Accordingly, the waste management practices of selected swine and poultry farms in Laguna were managed through burying of carcass animals because the mortality of swine and poultry is an unavoidable occurrence in production where the disposal of dead animals is a common environmental issue. Hence, the swine farmers opted for burying carcasses. Carcasses should be buried at least six feet deep into the ground to limit the possibility of stray animals unearthing the carcass subsequently exposing it to the environment where flies and maggots can feed on it and spread diseases to both human and animal populaces (Paraso, Espaldon, et.al. 2010).

2.6 Health Management

The main constraints to health management were lack of veterinary services to correctly diagnose disease and unaffordability of veterinary services. As shown on Table 6 majority of native pig raisers in Tablas Island 71.43% and Sibuyan Island 38.46% practiced application of antibiotics while other farmers applied different health management practices to cure diseases in their pigs. Applications of antibiotics by the respondents in their pigs are very common even without the prescription of veterinarian "*ga tao kami ning bulong miskin ya ning resita sang doctor sang hayop kay wa man sanda ga kari sa amon kaya hai kami nalang ang ga bulong sang amon alaga kay amon na ini nakadagkoan halin pa sa amon mga tigulang"* they stated that respondents apply antibiotics without the prescription given by the doctor because it was already there practice even their parents before. Other respondents deworm their stocks using commercial medicine which is available in the market. Respondents in Tablas Island use traditional medicine 7.14% which are found in the nearby place, likewise also same with Sibuyan Island traditional medicine was practiced to cure illness of pigs and to prevent the outbreak of diseases.

According to the respondent's application of antibiotics done only when there is occurrence of diseases. Respondents give medicine which is also applicable in human they categorically give medicine like amoxicillin when the pig has fever. Other respondents also used medicinal plant like ipil-ipil when pigs suffers from diarrhea *"ga tao kami sang dahon sang ipil kung ang amon nga baboy ay ga inigit"*. "*Pag ingwa it sip-on at indi sagnaton ginapainom namon it medicol*

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

ag ginabutangan it vicks kag ilong it baktin". The respondents gave medicol and put vicks vaporub to the nose of the pigs to avoid colds and flu.

The result of the study conforms to the study of Njuki, Pali and Poole (2010), they observed that the most common diseases and parasites affecting pigs were worms and swine fever which is mostly occurred on average once per year except for symptoms such as cough and fever that occurred twice during the year. The diseases that include parasites, fever and worms can be treated through conventional medicine while foot and mouth, swine fever and wounds are mainly treated through traditional methods.

Table 6. Health management practices of native pigs in Romblon.

Indicators	Tablas Island		Sibuyan Island		Romblon Province	
	Freq	%	Freq	%	Freq	%
Health management:						
Application of Antibiotics	10	71.43	5	38.46	15	55.56
Traditional medicine	1	7.14	2	15.38	3	11.11
Deworming of stocks	3	21.43	4	31.88	7	25.93
Bathing of the animals	-	-	1	7.14	1	7.40
Total	14	100.00	13	100.00	27	100.00

3. Marketing Management of Native Pig Raisers in the Province of Romblon

3.1 Reasons for rearing native pigs

As shown on Table 7 out of 13 respondents with a mean of 3.28, answered that they always rear pigs to meet emergency household expenses and sometimes used for special occasions. Some respondents states that "kaya kami ga-alaga sang baboy kay imaw ini ang amon nga alkansya" it means that the respondents rear pigs because it is like a piggy bank and when need arises they have their animal to sell usually spent on the acquisition of household goods and in meeting social and cultural obligations. Other respondents state that they sometimes rear pig for them to be slaughtered during special occasions. And often they rear pigs for the need of their children to pay school fees. Sometimes they sell their pigs when somebody is looking for them.

As stated by Huynh, et al. (2006). the importance of pig enterprises as a major source of family income, as a supplementary source of funds for particular purposes, for example to finance children's schooling, to use during the celebration of cultural events, or to pay off a debt, or as a 'savings bank'.

Table 7. Reasons of hog raisers for rearing native pigs.

Indicators	Tablas Island		Sibuyan Island		Romblon Province	
	Mean	DI	Mean	DI	Mean	DI
1. Use for education of children	2.25	Sometimes	2.75	Often	2.50	Often
2. To meet planned household expenses	3.00	Often	3.25	Always	3.13	Often

TECHNIUM SOCIAL SCIENCES JOURNAL

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

3.	Livestock trading as a business	2.25	Sometimes	1.50	Never	1.88	Sometimes
4.	Use for special occasions (fiestas, birthday, anniversary)	1.83	Sometimes	2.50	Often	2.17	Sometimes
5.	To meet emergency household expenses	3.30	Always	3.25	Always	3.28	Always
Overall Mean		2.53	Often	2.65	Often	2.59	Often

Scale	*Numerical Rating*	*Descriptive Interpretation (DI)*
4	3.25-4.00	*Always (A)*
3	2.50-3.24	*Often (O)*
2	1.75-2.49	*Sometimes (S)*
1	1.00-1.74	*Never (N)*

3.2 Selling practices

Pig raisers are often price takers but not price makers. Pigs are not difficult to sell. As shown on Table 8, the pig raisers in the province of Romblon always sell pigs per head (3.25) and never sell pigs in terms of barter or exchange of other goods (1.00). Other pig raisers often sell their pigs on a cash basis and directly to local traders to avoid transportation costs. They do this because the respondent said in their vernacular word "*kung mag-baligya ning baktin hay utangon pero dugay magbayad magpahabol- habol pa kung mag bayad man tawaran pa, haay lugi negosyo*" it means that when they sell pig on credit the debtor usually run away or it pays for a long period of time but when it was sold in cash the buyer will ask for a discount which incurred them a loss.

Table 8. Selling practices employed by native pig raisers in Romblon.

Indicators	Tablas Island		Sibuyan island		Romblon Province	
	Mean	DI	Mean	DI	Mean	DI
1. Sell pigs per kilo	2.75	Often	3.38	Always	3.07	Often
2. Sell on credit or cash basis	2.50	Often	2.13	Sometimes	2.32	Some Times
3. Pick-up by traders or middlemen to avoid transportation cost	3.08	Often	3.13	Often	3.11	Often
4. Sell pigs in terms of barter or exchange of other goods	1.00	Never	1.00	Never	1.00	Never
5. Sell pigs per head	3.00	Often	3.50	Always	3.25	Always
6. Sell at lower price	1.00	Never	2.50	Often	1.75	Sometimes

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

7. Offer quantity discounts for customers buying more than 10 piglets	1.92	Sometimes	1.63	Never	1.78	Sometimes
8. Sell products directly to consumers	2.83	Often	3.50	Always	3.17	Often
9. Seasonal prices (during Christmas and when demand is lower)	2.08	Sometimes	3.00	Often	2.54	Often
Overall Mean	2.24	Sometimes	2.64	Often	2.44	Sometimes

Scale	*Numerical Rating*	*Descriptive Interpretation (DI)*
4	3.25-4.00	*Always (A)*
3	2.50-3.24	*Often (o)*
2	1.75-2.49	*Sometimes (S)*
1	1.00-1.74	*Never (N)*

3.3 Preferences of hog raisers

The data presented on Table 9 shows that the respondents in the province of Romblon always preferred rearing native pigs because it has a low cost requirement (3.45), easy to manage (3.69), and has a good taste of meat (3.50). The result conforms to the study of Sovann, et al (2002) which implies that the reasons for keeping native pigs were easy management, low disease incidents and cost effectiveness. Likewise according to the respondents, they preferred to reared native pigs because they said, "*kada kami nagga-alaga ng netibo nak baktin bukon sya hirap alagaon kag iya mismo ang gapangita ning lugar kung diin sya maunga, pag mainit ang panahon ga lum-oy sanda sa tubog, ag aber nin-o ingkakaon*." This means that they reared native pigs because it is not difficult to manage, the pigs are the ones who look place at times of giving birth, during sunny days they go to the muddy place and take a bath and they eat anything you feed.

Table 9. Preferences of hog raisers in rearing native pigs in Romblon.

Indicators	Tablas island		Sibuyan Island		Romblon Province	
	Mean	DI	Mean	DI	Mean	DI
1. Low cost requirement	3.67	Always	3.00	Often	3.45	Always
2. Easy to manage	3.75	Always	3.63	Always	3.69	Always
3. Good taste of meat	3.50	Always	3.50	Always	3.50	Always
4. People prefer to buy	2.92	Often	2.63	Often	2.78	Often
5. Additional source of income	3.33	Always	3.13	Often	3.23	Often
Overall Mean	3.43	Always	3.18	Often	3.31	Always

TECHNIUM SOCIAL SCIENCES JOURNAL

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

Scale	*Numerical Rating*	*Descriptive Interpretation (DI)*
4	*3.25-4.00*	*Always (A)*
3	*2.50-3.24*	*Often (O)*
2	*1.75-2.49*	*Sometimes (S)*
1	*1.00-1.74*	*Never (N)*

4. Relationships of Demographic Profile and Management Practices of Native Pig Raisers

4.1 Demographic Profile and Housing Practices

As shown on Table 10, the demographic profile of the respondents in the province of Romblon such as family monthly income and household size were significantly related to housing management employed by hog raisers in terms of location. The methods of restrain and shelter used were not significantly related to demographic profile. This means that the respondents can tether the native pigs and make a shelter regardless of their demographic profile. The household size and civil status was significantly related to shelter used and floor construction respectively. This signifies that the respondents can employ different housing management practices regardless of their civil status and household size.

Table 10. Relationship between demographic profile and housing management practices employed by native pig raisers in Romblon.

Demographic Profile	Housing Management Aspect			
	Location	Methods of restrain	Shelter used	Floor construction
Age	.125 .685^{ns}	-.371 .212^{ns}	-.310 .303^{ns}	.195 .523^{ns}
Gender	5.706 .058^{ns}	3.306 .347^{ns}	2.431 .297^{ns}	4.122 .127^{ns}
Civil status	3.360 .186^{ns}	.420 .936^{ns}	.525 .769^{ns}	21.000 .000
Educational attainment	10.436 .236^{ns}	11.638 .475^{ns}	11.500 .175^{ns}	8.400 .395^{ns}
Occupation	9.091 .169^{ns}	4.200 .898^{ns}	5.250 .512^{ns}	4.200 .650^{ns}
Family monthly income	.625* .022	.196 .520^{ns}	.223 .463^{ns}	-.293 .331^{ns}
Household size	.677* .011	-.303 .315^{ns}	.573* .041	-.390 .188^{ns}
Training	1.166 .558^{ns}	.884 .829^{ns}	.553 .759^{ns}	.884 .643^{ns}

*Correlation is significant at the 0.05 level (2-tailed) ns=not significant
**Correlation is significant at the 0.01 level (2-tailed)
Note: **0.125** ***r-value*** 0.685 *p-value*

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

4.2 Demographic profile and feeding, waste management

The data on Table 11 shows the relationship between the demographic profile of the respondents and the feeding and waste management practices employed by hog raisers. It was revealed that age and occupation were significantly related to the feeding rations while estimated monthly income was significantly related to the manner of feeding. This means that hog raisers can feed native pigs regardless of their age, occupation and income. In the province of Romblon, the father, mother, children and grandparents can feed the native pigs. On the other hand, it was observed that burying the carcass waste of pigs is the practices employed by the hog raisers

Table 11. Relationship between demographic profile and feeding management practices of native pig raisers in Romblon.

Demographic Profile	Feeding Management	
	Feeding Rations	Manner of Feeding
Age	**-0.438*** 0.047	0.382ns **-0.201**
Gender	**2.100** 0.552ns	0.297ns **2.425**
Civil status	**2.100** 0.552ns	0.884ns **0.247**
Educational attainment	**14.487** 0.271ns	0.789ns **4.701**
Occupation	**17.914** 0.036	**2.471** 0.872ns
Income	**0.178** 0.441ns	0.876ns **0.036**
Household size	**0.274** 0.229ns	0.504ns **0.154**
Training	**7.074** 0.070ns	**13.263** 0.001

*Correlation is significant at the 0.05 level (2-tailed) ns=not significant
Correlation is significant at the 0.01 level (2-tailed) Note: **-0.438* *r-value 0.047 p-value

4.3 Relationship between demographic profile and breeding system and health management practices of hog raisers

The relationship between the demographic profile and breeding and health management practices employed by hog raisers was presented on Table 12.

The data presented on the table observed that household size was found significantly related to the health management practiced by hog raisers. However, the significant relationship was failed to observe between the profile and the breeding management. On the other hand, there is only one method of breeding practiced by the hog raisers in the province of Romblon: this was natural mating. The result indicates that the hog raisers employed similar breeding and health management practices regardless of their demographic profile.

TECHNIUM SOCIAL SCIENCES JOURNAL

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

Table 12. Relationship between demographic profile and breeding system and health management practices of native pig raisers in Romblon.

Demographic Profile	Breeding Management N=21		Health Management
	Types of breed raised	Source of boar	N=21 (types of constraints)
Age	**0.105** 0.649^{ns}	**0.008** 0.972^{ns}	**0.286** 0.209^{ns}
Gender	**3.033** 0.219^{ns}	**0.398** 0.528^{ns}	**2.241** 0.691^{ns}
Civil status	**0.420** 0.811^{ns}	**0.955** 0.329^{ns}	**3.360** 0.499^{ns}
Educational attainment	**9.450** 0.306^{ns}	**9.307** 0.054^{ns}	**12.282** 0.724^{ns}
Occupation	**11.667** 0.070^{ns}	**1.909** 0.591^{ns}	**13.576** 0.329^{ns}
Income	**0.258** 0.259^{ns}	**-0.159** 0.492^{ns}	**-0.096** 0.680^{ns}
Household size	**-0.429** 0.052^{ns}	**0.392** 0.079^{ns}	**0.484*** 0.026
Training	**0.884** 0.643^{ns}	**0.005** 0.943^{ns}	**1.166** 0.884^{ns}

*Correlation is significant at the 0.05 level (2-tailed) ns = not significant

Correlation is significant at the 0.01 level (2-tailed) Note: **0.105 ***r-value*** 0.649^{ns} *p-value*

4.4 Relationship between demographic profile and marketing practices employed by hog raisers

The data presented on Table 13 shows that age was significantly related to utilization while the civil status and household size were significantly related to the preferences of pig raisers in rearing native pigs. On the other hand, a significant relationship was not observed between the demographic profile and the marketing practices in terms of utilization and selling. The result indicates that the hog raisers employed similar marketing practices regardless of their profile.

Table 13. Relationship between demographic profile and marketing employed by native pig raisers in Romblon.

Demographic Profile	Marketing Practices (N=21)		
	Utilization of stocks	Selling of stocks	Preferences of buyers

TECHNIUM SOCIAL SCIENCES JOURNAL

Technium Social Sciences Journal
Vol. 22, 852-869, August, 2021
ISSN: 2668-7798
www.techniumscience.com

Age	**0.447***	0.042	0.595ns	**-0.123**	0.861ns	**-0.041**
Gender	**6.028**	0.420ns	**8.069**	0.622ns	**1.808**	0.875ns
Civil status	**4.463**	0.614ns	**9.975**	0.443ns	**21.000**	0.001
Educational attainment	**31.792**	0.132ns	**47.250**	0.201ns	**13.840**	0.839ns
Occupation	**17.167**	0.512ns	**40.375**	0.098ns	**11.333**	0.729ns
Income	**-0.304**	0.180ns	**-0.242**	0.291ns	**0.064**	0.784ns
Household size	**-0.042**	0.857ns	**0.285**	0.210ns	**0.033**	0.887ns
Training	**4.559**	0.601ns	**3.592**	0.964ns	**6.493**	0.261ns

*Correlation is significant at the 0.05 level (2-tailed) ns=not significant
Correlation is significant at the 0.01 level (2-tailed) Note: **0.447 ***r-value*** 0.042 *p-value*

Conclusions

From the findings of the study, the following conclusions were drawn by the researcher. There is a significant relationship between demographic profile and the management practices in terms of breeding, feeding, health; and marketing practices with regards to utilization and preferences.

References

[]] O.A. Adebambo. Evaluation of the genetic potential of the Nigeria Indigenous pigs. Proceedings of 2nd World Congress on Genetic applied to Livestock Production; 4-8 October 1982, Madrid, Spain, pp. 543-553.

[2] R. P.Agdeppa-Namocoet. Alternative Feed Rations for Grower Stage Backyard Swine Mindanao Journal of Science and Technology Vol.0 (2012) 93-106.

[3] B. G. Aggalao. Production of Native Pigs in the Municipality of Tinglayan, Kalinga Province. Benguet State University, La Trinidad, Benguet, 2011.

[4] S. Anderson. Animal genetic resources and sustainable livelihoods. Ecological Economics 45 (3): 331-339.

[5] L. Anil, S.S Anil, J. Deen. Evaluation of the relationship between injuries and size of gestation stalls relative to size of sows. 221:834-836.

[6] A.L Archibald and C.S. Haley. Porcine genome analysis. Strategies forPhysical Mapping, 4, 99-129.

[7] V.G. Arganosa and M.O. Villeta. Reproductive and Productive Performance of Animals in Small and Medium Sized Piggeries in Laguna. The Philippine Agriculturist. 71:114-124.

[8] R. Asuncion, and J. Oliver. Hog Raising. Kalookan Zonne Printing Company, 2001.

[9] G.C. Banerjee. Pigs, In A Textbook of Animal Husbandry. Seventh Edition, New Delhi: Oxfort and IBH Publishing Co., 1991.

[10] J.S.F. Barker. Animal breeding and conservation genetics. In: Conservation

genetics, pp 381–95. Birkha¨user Verlag, Basel, Switzerland.
[11] M. Barrick, Pigs Diets Containing Coconut Oil. Retrieved October 27, 2009.
[12] J.A. Barroga. A Dynamic Philippine Swine Industry: Key to Meeting Challenges and Technological Innovations, Department of Animal Science, College of Agriculture, Central Luzon State University, Science City of Munoz, Nueva Ecija, Phillipines, 2014.
[13] F. Bibi, and Z Ali. Measurement of Diversity Indices of Avian Communities at Taunsa Barrage Wildlife Sanctuary, Pakistan. The Journal of Animal and Plant Sciences, 23(2): 2013, Page: 469-474 ISSN: 1018-7081.
[14] Bureau of Agricultural Statistics: *Swine Industry Performance Report.* Livestock and Poultry Statistics Division, Bureau of Agricultural Statistics, Department of Agriculture, Quezon City, Philippines, 2002.
[15] F. A. Bogawit. April Production and Marketing Practices of Swine Raiser and Traders in Mankayan, Benguet. Benguet State University, La Trinidad Benguet, 2013.
[16] O. L. Bondoc. Animal Breeding Principles and Practices in the Philippine Context. The University of the Philippines Press. Diliman, Quezon, City, 2008.
[17] D. Borkotoky, P. Perumal and R. K Singh. Veterinary Research International | January- March, 2014 | Vol 2 | Issue 1 | Pages 08-11, 2014 Jakraya Publications (P) Ltd.
[18] M.W. Bruford, D.G Bradley. & G. Luikart. DNA markers reveal the complexity of livestock domestication. Nature Reviews Genetics 4, 900–10.
[19] C. Brown. The changing market: Perspective from multiple retailers. In: Thompson, J.E., Gill, B.P. and Var-ley, M.A., Eds., *The Appliance of Pig Science*, British Society of Animal Science, 19-22.
[20] David C Bueno, Ed. D. and Eric A, Matriano, Ph. D. Research Writing for Business and Hospitality Management. Published by great Books Trading 7B Cavite Street, Brgy. Paltok West Avenue, Quezon City, 2016.
[21] J. Cabarles JR,. Collection, Identification, Multiplication, Maintenance and Evaluation (CIMME). Retrieved February 1, 2011, from MAGSASAKA AT SIYENTIPIKO PARA SA PAG-UNLAD NGA AGRIKULTURA: http://www.masipag.org/cimme.htm Research Science Specialist of MASIPAG Philippines, 2004.
[22] Jose F Calderon and Expectacion C. Gonzales. Methods of Research and Thesis Writing. Philippine Copyright, 1993 Reprint 2004 by National Book Store, Inc. Quad alpha Centrum Bldg. 125 Pioneer Street, Mandaluyong City, 1993.
[23] A.O. Catelo, M.A. Dorado, and E. Jr. Agbisit. Backyard and commercial piggeries in the Philippines: environmental consequences and pollution control options, Research report, Economy and Environment Program for Southeast Asia (EEPSEA) Singapore, 2001.
[24] C. Devendra, Pig production in Malaysia. Pig News and Information. 1,219-223, 1980.