

BIBLIOGRAPHY

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ABSTRACT

This study was purposely done to assess the market performance of egg producers in terms of flexibility, efficiency and responsiveness; determine the quality desired by buyers of egg and problems encountered by the buyers; and describe the performance of egg producers in terms of product quality, service quality and functional quality.

The respondents of the study were 50 buyers in Atok, Benguet which were classified into group of individual consumers, retailers, wholesalers and processors.

The results of the study revealed that the desired quality criteria of buyers were as follows: eggs are fresh in appearance and clean; the yolk is orange; the content is not watery; and the shell is firm. For the quality service the buyers expected the affordability in price while on functional quality, the buyer wants the desired capacity or volume of orders being asked to be served by egg producers. The product quality performance of egg producers met all the perceived quality criteria desired by the buyers. For service quality the respondents is satisfied with the quality service which are: timely delivery, affordable price, packaging service and extent of support services. As to functional quality performance, the respondents rated the producers satisfactory. This means that the egg



producers in Naguey met the functional quality performance the way the buyers wants it. As to the market performance of egg producers in Naguey, the different groups of buyers assess them as flexible, efficient and responsiveness. The problems encountered by the buyers are: delayed time of delivery of orders, inability to meet the volume of orders and some orders are damaged due to the poor condition of roads, shortage of eggs produced, calamities and bad weather condition.



INTRODUCTION

Rationale

Chicken layers are those developed to produce large numbers of egg. They may produce either white or brown eggs, depending on the breed. Laying chickens are also maintained to produce eggs to be hatched for production of broiler chicks stated by Cooper and Burton, (2002). In USA the white eggs are most prefer by consumers to buy. The layers in this country are housed in cages within a large facility that hold 2 to 12 birds. The hens are feed by means of automated conveyer and the water is supplied by means of narrow free-running trough. Eggs are laid onto conveyer which periodically moves the eggs to collection point, (Herren, 2011).

As stated by Abdel-Nour (2008), egg is an inexpensive but very nutritious component within the human diet. It is one of the few foods that are used widely worldwide and are healthy and safe for consumers. It is a vehicle for reproduction and can be raw material for many products in food processing plants. The egg industry is facing challenges of intensive production with decreased labour. There has been an increase in the number of laying hens and diets of hens have improved. These factors have led to an increase in production of eggs at a lower cost. However, this industry needs accurate and reliable information about the egg in order to grade it precisely and to provide quality to the consumers that meets their requirements with respect to egg quality and standards.

Chicken egg production in the Philippines is a minor industry compared to the broiler production sector that takes center stage in the Philippine chicken trade. But the chicken layer sector had the most growth between 2001 and 2002 because of the increase



of chicken layer sector in the country. In 2002 alone, chicken egg production contributed 3% of the total value of agriculture in the Philippines. With the current socio-economic problems in the country, the chicken egg is one of the cheapest food products that are vastly available in the market. The chicken egg is also considered as one of the most completed food sources with high nutritional value, (Agribusinessweek.com, 2012).

Atok is one of the thirteen regular towns of Benguet province. Atok has a land area of 22,385 hectares or 223.85 square kilometer. A great portion of the land is mountainous hence the highest point in the Philippine Highway System (Halsema Highway) is located in the municipality at 7,400 ft. above sea level and composed of eight Barangays. Naguey is one of the barangay which they call as the “Naguey Valley” because of its rice terraces and surrounded by huge mountains. Barangay Naguey started to engage in egg production from December 2002 until at present because of its availability of resources and which is also, the first producer of egg poultry in Naguey was sponsored by BSU poultry. At present, the numbers of egg producers in Naguey increased due to high rate of consumers to be supplied.

Nowadays mostly are engaged in egg production because of it easy to manage. The egg is easy to consume and have nutritional value which the consumer wants. It is valuable to conduct research on the market performance of egg producers. It will also help the different egg producers to improve their strategies in penetrating the market and maintain or develop good quality of their product and service to their buyers and consumers.



REVIEW OF LITERATURE

Marketing

As stated by McCarthy (1990), Marketing is both a set of activities performed by organizations and a social process. In other words, marketing exists at both the micro and macro levels. Which they define marketing into two, one for micro-marketing and another is macro-marketing. The first looks at customers and the organizations that serve them. The second takes a broad view of whole production-distribution system.

The marketing comes from the word “market”, which is group of sellers and buyers who are willing to exchange goods or services for something of value. This can be done face-to-face at some physical location (for example, a farmers market). Or it can be done indirectly through a complex network of middlemen who link buyers and sellers who are far apart. In primitive economics, exchange tends to occur in central market. Central markets are convenient places where buyers and sellers can meet face-to-face to exchange goods and services. This is to understand macro-marketing better by seeing how and why central markets develop (McCarthy, 1990).

Effective Marketing

Effective marketing means delivering the goods and services that consumers want and need. It means getting products to them at the right time, in the right place and at a price they're willing to pay. It is not easy job, especially if there are a variety of goods and services consumers want. Effective marketing in an advanced economy is more difficult because producers and consumers are separated in several ways. Exchange between



producers and a consumer is hampered by spatial separation, separation in time, separation in information and values, and separation of ownership. Exchange is further complicated by discrepancies of quality and discrepancies of assortment between producers and consumers. That is, each producer specializes in producing and selling large amounts of a narrow assortment of goods and services, but each consumer wants only small quantities of a wide assortment of goods and services (McCarthy, 1990).

Process Management

Involves the design of process to develop and deliver products and services that meet the needs of customers, daily control of those processes so that they perform as required and their continual improvement. Process management activities emphasize prevention and organizational learning; the costs of preventing problems at the design stage are much lower than costs of correcting problems that occur “downstream”. Also, success in globally competitive markets requires a capacity for rapid change and flexibility, such as shorter product introduction cycles and faster and more flexible response to customers, which often means simplification of process and the ability for rapid changeover from one process to another. Process management activities involve not only an organization’s core capabilities, but also processes and supplies-partnering processes (Evans and Lindsay, 2001).



Manufacturing Operations

As stated by Dilworth (1986), the type of production facility and production methods that a manufacturing company uses are sometimes referred to as its production system. At the time a customer's order is received, the items used to fill that order management intentionally be (1) held a finished goods, (2) held a standard measures waiting to be assembled, or (3) held or ordered as basic inputs any processing performed on them. Some companies are make-to-stock products, that is, they make items that are completed and placed in stock prior to receipt of the customer's order. Some companies make to order in the case of a make-to-order producer the end item is completed after receipt of the customer's order for the item. When the company produces standard-design, optional modules after the customer orders it, the business is said to be assembler-to-order producer. He also discuss that there are two major categories production facilities and methods; (1) Continuous production system is one in which the equipment and work stations are arranged in a sequence according to the steps used to convert the input raw materials into the desired component or assembly. Since the material flow path and processing steps are fixed, this type of production is frequently used with standard products that are make-to-stock items. Some continuous production operations produce a product that blends together in bulk rather than being in discrete units. The industries that produce these types of products are sometimes called process industries, particularly if some physical or chemical reaction is used. (2) Intermittent production system or Job Shop differs greatly from the continuous system, in that it is designed to provide much more flexibility continuous and intermittent production system are points near opposite ends of a continuous representing the degree of specifically of the production system.



Perception

Robbins (1988) defined perception as cited by Duyan (2011) as a process by which individuals organize and interpret their sensory impressions in order to give meaning to their environment. People can emerge with different perceptions on the same object because of three perceptual processes: selective attention, selective distortion, and selective retention.

Selective attention means that a marketer has to work hard as attract consumers' notice.

Selective distortion is the tendency to twist information in a way that will fit one's preconceptions. Unfortunately, there is not much a marketer can do about selective distortion.

In selective retention, people will forget much that they learn but will tend to retain information that supports their attitudes and beliefs. Because of selective retention, people likely remember good points mentioned about a product they like and forget good points mentioned about competing products (Berelson and Steiner, 1964) as cited by Duyan (2011).

Quality

Quality is defined from many view points, including transcendent quality, product and value-based quality, fitness for use and conformance to specifications. The official definition of quality is "the totality of features and characteristics of a product/ service that bears on its ability to satisfy given needs". Most business today defines it as "meeting or exceeding customer expectations" (Evans and Lindsay, 2001).



According to Garvin (1988), it is one of eight dimensions that shape the quality concept, the others are: performance, features, reliability, conformance, durability, aesthetics and serviceability (the intrinsic attributes or physical characteristics of a product). Intrinsic attributes can be improved in two ways: offering improved performance, additional features, etc (which has a clear cost implication) and by applying Total Quality Management (TQM), which not only improves conformance levels but also has a positive impact on other quality dimensions (Flynn *et al.*, 1995).

Gronroos (1990) describes quality as cited by Duyan (2011) by differentiating it into two dimensional: technical and functional. Technical quality describes the customer's specifications. This is a physical description of the product in terms of its size, shape, color, freedom from pests and diseases, purity (in terms of its freedom from chemical contaminants, pathogenic organisms and genetically modified plants), maturity or freshness and the manner in which the product is packed. Functional quality, on the other hand, describes the way a supplier goes about delivering the product to the customer. Fundamentally, this means being able to deliver the product when the customer wants it. By implications, it involves many inter-related activities such as production, scheduling, storage and warehousing, logistics, ordering and invoicing. Parasuraman (1993) introduced third dimension as cited by Duyan (2011) called service quality, which describes the extra things a supplier is willing to do to retain customer's business. While the exact meaning of the term "service" varies with the nature of the product and requirements of the buying organizations, service may include such variables as providing technical assistance, innovative suggestions, credit arrangements, support for special needs, or providing



advance notice of impending price changes shortages in supply (Hutt and Speh, 1995) as cited by Duyan (2011).

Product Quality

According to Evans and Lindsay (2001), product quality should be important to the individuals throughout a production-distribution system, how quality is viewed may depend on one's position in the system, that is, whether one is the designer, manufacturer, distributor or customer. The customer is driving force for the production of goods and services and customers generally view quality from other the transcendent or the product-based perspective. The goods and services produced should meet customers' needs; indeed, business organizations' existences depend upon their ability to meet customer needs. It is the role of the marketing function to determine these needs. A product that meets customer needs can rightly be described as a quality is meaningful to people who work in marketing.

A product's value in the market place is influenced by the quality of its design. Improvement in design will differentiate the product from its design. Improvements in design will differentiate the product from its competitors, improve a firm's quality reputation and improve the perceived value of the product. This differentiation allows the company to command higher prices as well as to achieve a greater market share which in turn lead to increased revenues, offsetting the costs of improving design (Evans and Lindsay, 2001).

Quality and Satisfaction

As stated by Czepiel (1992), the key element of quality is satisfied customer. The customer's experience and his evaluation of that experience is what matters. In fact, this is the major shortcoming of all of the aforementioned measures of quality which is all seek



hard, physical, factual data measure something that ultimately takes place in a customer's head, heart and gut. Because satisfaction is defined as the discrepancy between expectations and perceived reality, a firm can change its customers' satisfaction without changing its offering at all.

Performance

Performance is often a multifaceted concept. The product is faster, performs more accurately or at higher level, is better tasting, smoother, more forgiving, easier, more economical, more consistent, or serves more applications/sizes. Product markets frequently advance the definition of average or acceptable performance over time based on changes in economics, technology, or simply the actions of the competitors as they seek advantage over rivals. Measure of performance can be difficult when they involve benefits that not every consumer needs (Czepiel, 1992).

Performance can be characterized as cost factor and service factor. The cost factor considers the cost of inventory, transportation, facilities and handling cost and information, infrastructure and the service factor considers the response time, product variety, product availability, customer experience, order viability and returnability (Hongze Ma, 2005).

Performance management can be defined as a systematic process for improving organization performance by developing the performance of individuals and teams. It is a means of getting better results from the organization, teams and individuals by understanding and managing performance within an agreed framework of planned goals, standards and competence requirements. Process exist for establishing shared understanding about what is to be achieved and for managing and developing people in a



way that increases the probability that it will be achieved in the short and longer term. It is owned and driven by like management (Armstrong, 2006).

Operational performance deals with the time required to deliver a customer's order. Operational performance involves delivery speed and consistency. Naturally, most customers want fast delivery. However, fast delivery is limited value if inconsistent from one order to the next. A customer gains little benefit when a supplier promises next-day delivery but frequently delivers late. To achieve smooth operations, firms typically focus on delivery consistency first and then seek to improve delivery speed. Other aspects of operational performance are also important. A firm's operational performance can be viewed in terms of its flexibility to accommodate unusual and unexpected customer requests. Other aspect of operational performance is frequency of malfunction and when such malfunction occurs, the typical recovery time. Few firms can perform perfectly all the time. It is important to estimate the likelihood of something going wrong. Malfunction is occurred with the probability of logistical performance failure, such as damaged products, incorrect assortment, or inaccurate documentation. When such malfunction occurs, a firm's logistic competency can be measured in terms of recovery time. Operational performance is concerned with how a firm handles all aspects of customer requirements, including service failure, on a day-in and day-out basis (Bowersox, 2007).

Aramyan *et al.* (2006) summarized the different methods as cited by Duyan (2011) to assess supply chain performance, the advantages and disadvantages of each method; and developed a conceptual framework for agri-food supply chain performance indicators. The categories are chosen from different sectors and these include efficiency, flexibility, responsiveness and food quality.



METHODOLOGY

Locale and Time of the Study

The study was conducted following the market flow of egg producers from Naguey in Atok, Benguet. The research was conducted in Atok, Benguet from the month of December 2012 to January 2013.

Respondents of the Study

The respondents of the study were composed of 50 buyers such as retailers, wholesalers, processors and individual consumers who bought eggs from producers in Naguey, Atok, Benguet.

Data Collection Procedure

Data gathering were done through questionnaires. The researcher personally interviewed the respondents to supplement the information gathered from questionnaires. Secondly data were gathered and collected from the internet, library, research studies and other available resources. The information gathered from the literature were used in the construction of the research study.

Data Gathered

The data gathered included the demographic profile, the quality and performance desired by the customers and the problems of buyers met in dealing with the egg producers.

Data Analysis

The data collected were tabulated and analyzed using frequency counts, percentages, mean and interpreted according to the objectives of the study.



RESULTS AND DISCUSSION

Demographic Profile of Respondents

The demographic profile of different respondents is presented in Table 1. It presented the respondents characterization based on their classifications, age, gender, marital status, religion and educational background.

Classification of respondents. The identified respondents as the buyers of egg produced in Naguey, Atok which are classified into four groups as individual consumers, retailers, wholesalers and processors. It shows that there were 52% retailers; 32% individual consumers; 10% processors; and 6% wholesalers. Further, the result implies that majority of the buyers were the retailers followed by the individual consumers and some were processors and wholesalers.

Age. In terms of age, majority of the retailers were from 44-50 years old. The individual consumers were younger (23-29 years old) compared to wholesalers (30-50 years old) and to processors (57-63 years old). The Table further showed that all of the respondents are mostly 23-29 years old.

Gender. From the retailers, 73% are female and 27% are male respondents; for individual consumer is 69% female and 5% male; processor is 80% female and 20% male; and wholesalers is 100% female and there is no male respondents. Most of the respondents were female which is 74% compared to male respondents with 26%. The data shows that majority of female respondents are the active buyers and sellers of egg produced in Naguey compared to male respondents.



Marital status. As to marital status for individual consumer, most (75%) are married and some (25%) are single. For the retailers, 92% are married, 4% are single and 4% are widowed. There are 67% of married and 33% of single for the status of wholesalers while for processors, most are married with 60%, 20% are single and 20% are widowed. Majority of the respondents are married with 82% while there is a significant number of respondents that are single with 14% and few are widowed with 4%. This implied that egg production business is a source of income regardless of marital status.

Religion. Most of the respondents are Roman Catholic with 80% followed by Jehovah's Witnesses with 6%. The result shows that few groups of respondents were affiliated with other religious denomination.

Educational background. Majority of the respondents have reached or have graduated high school (50%) and even college (34%) for some as shown in the table. A small number of respondents finished elementary (12%) and few who took up vocational course (4%). From wholesalers respondent shows that all of them finished College. Majority of the buyers are literate and have basic education.

Types of Businesses

Presented in Table 2 are the different businesses the respondent operates. From the retailers group, most of them are engaged in sari-sari store (62%) business followed by the coop enterprise (30%) and some are engaged in grocery stores (4%) and school canteen (4%) business. Compared to processors most of them are engaged in restaurant business (60%) and only few are engaged in bakery business (20%) and school canteen business (20%) while in wholesalers, most of them are engaged in grocery stores business (67%)



and some are engaged in general merchandise business (33%). It was found out that the sari-sari store (49%) followed by COOP enterprise (23%) were the common businesses of different group of respondents operates in Atok. Furthermore some respondents may take two functions in business such as a retailers and wholesalers engaged in a grocery stores business and also as a processor and retailer engaged in a school canteen business.



SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

This study was purposely to assess the market performance of egg producers in terms of flexibility, efficiency and responsiveness; determine the quality desired by buyers of egg and problems encountered by the buyers; and describe the performance of egg producers in terms of product quality, service quality and functional quality.

The respondents of the study were 50 buyers in Atok, Benguet which is classified into group of Individual Consumers (32%), Retailers (52%), Wholesalers (6%) and Processors (10%). Most of the buyers of eggs in Naguey are engaged in Sari- sari Store (Retailers 62%), General Merchandise(Wholesalers 33%), Grocery stores (Wholesalers 67%), Co-op Enterprise (Retailers 31%), Restaurant (Processors 60%), Bakery(Processors 20%) and School Canteen(Processors 20%). The location of different group of respondents where in Barangay Poaoy and some are in Barangay Topdac, Caliking, Poblacion and Naguey, Atok. It is found out that most of the respondents' have been buying eggs in Naguey for 5 to 6 years (with 22 %). And most of the different group of respondents bought medium and large size of eggs.

The quality desired such as product quality, service quality and functional quality are the respondents' criteria in buying eggs. As to criteria on product quality pertains to: fresh in appearance and clean; the yolk is orange; the content is not watery; and the shell is firm. For the quality services the group of buyers wants the price to be affordable, high volume of orders should have freebies and extend support service in delivery/packing of egg. While in functional quality, the buyers expect that the producers should meet the



desired capacity or volume of orders being asked and availability of replacement for damaged or broken eggs.

The study described the perception on egg producers' performance in terms of product quality, service quality and functional quality. The respondents received that eggs they order are fresh in appearance and it is clean, yolk is orange, the content is not watery and firm egg shell. Based on the weighted average, most of the group of buyers' criteria is always observed which meets their product quality standards in buying eggs. The different group of respondents is satisfied with the quality service which is performed by the egg producers in Naguey. These quality services are: on time delivery, affordability price and they extends supports service/packing service. It also found that in quality service only few of the producers practiced the giving of free items as incentives to high volume of orders. The performance of egg producers in Naguey in terms of functional quality is satisfactory referring to the way they deliver the eggs and met the buyers' expectations.

This study assesses the market perception on egg producers' performance in terms of flexibility, efficiency and responsiveness. The buyers assess the market performance of supplier to be flexible wherein majority of them did not have conflict with their customers. They were able to meet the customers' standard on: delivery, good quality and right volume of eggs. The suppliers from Naguey are efficient in fulfilling the orders of their buyers in the market because according to respondents the producers deliver on time and used courtesy in selling their product. The suppliers also are responsive in delivering their products and services.

However, there are some respondents who said that they encountered problems with the suppliers. Their problems are: inability to meet the volume of orders, damaged



merchandise and inaccurate grading and packing. The reasons for their problems are bad weather conditions and calamities, poor road condition.

Conclusions

Based on the findings of the study, the following were derived:

1. The perceived quality criteria desired by the buyers' in buying eggs in terms of product are: fresh appearance and clean, the yolk is orange, the content is not watery and the shell is firm. For quality service, the buyers expect the affordability of price. For functional quality, the buyer wants the desired volume of orders to be met;

2. The product quality performance of egg producers met all the perceived quality criteria desired by the buyers;

3. The service quality performance of egg producers shows that the respondents are satisfied with the quality service. These pertain to timely delivery service, affordable price and extending of support service/packing service. It was also observed that in quality service, only few of the producers practice giving eggs free as incentives for high volume of orders;

4. The functional quality performance of egg producers show that respondents were rated satisfactory. The producers met the functional quality performance the way the buyers wants it;

5. The market performance of egg producers in Naguey indicates the assessment of buyers in relation to their flexibility, efficiency and responsiveness; and,

6. The problems encountered by respondents include delayed time of delivery of orders, inability to meet the volume of orders and some orders are damaged due to



calamities or bad weather condition, poor condition of roads and shortage of eggs produced.

Recommendations

Based on the findings and conclusions of the study, the following recommendations are forwarded:

1. Improvement of methods and facilities in the egg production area of producers in Naguey by upgrading the facilities and equipment used in egg production and adding the number of chicken layers for more production. And reprogram or schedule the cycle of chicken layers to be raised for continues production and supplies of egg to the market outlet;

2. Egg producers to establish quality standards that would be used for an efficient and effective quality service performance in market and to gain the trust of buyers or consumers;

3. Strengthen the associations of Naguey egg producers through partnership or alliances with stakeholders that includes government and non-government agencies;

4. Egg producers in Naguey should attend seminars about on businesses to gain some ideas and skills in improving their product and service and to widen their scope of market outlet; and,

5. Establish linkage with local government units for infrastructure improvements, especially road conditions for better transportation that will help the egg producers deliver and supply the eggs in good condition.



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