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Producer Benefits of the Agricultural Retail Store
at Gannoruwa Road-side Station

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Introduction

Small-scale rural farmers face various internal constraints and external barriers hindering their movement from subsistence farming to market-oriented farming practices. Marketing of agricultural produce is one of the major issues hindering the development of the agricultural sector and the livelihoods of the farming community in Sri Lanka. Exploitation of producers and consumers by middlemen in agricultural supply chains and the low quality and safety of products in the market that cannot adequately satisfy the needs of the local consumers are recognized as two major problems pertaining to this issue. Sri Lanka has tried many production and marketing approaches as well as agricultural education systems to address these issues but only with limited success. The inability of rural farmers to make a decent income and the lack of quality produce at reasonable prices for urban consumers are still very common phenomena in Sri Lanka.

“Road-Side Station” (RSS), commonly found in countries like Japan, is a direct

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producer-consumer meeting place --- sort of like a farmer's market in the U.S. --- often supported by a government organization, farmer cooperative, or private company (World Bank, 2004; Yano, 2014). While helping producers to gain a fair price for their produce and consumers to have access to quality agricultural products at a reasonable price, it has been recognized as a sustainable solution to protect both the producer and the consumer. In addition to the possible financial benefits from establishing an outlet for produce, producers may also enjoy the customer exchange process, receive a sense of personal pride and independence from the operation, receive information on consumer requirements (price, quality, quantity, etc.), and gain satisfaction from growing and selling quality crops. Consumers shop at RSSs in order to purchase fresh, flavorful and high quality produce in a convenient and friendly atmosphere at a reasonable price. As for consumers: at RSSs, they can find various food preparations and processed food produced directly by farmers from locally available fresh raw materials. The promotion of local food items and providing tips on how to prepare them, not only helps farmers earn an additional income, it also gives consumers an opportunity to learn new recipes to prepare local food.

If the RSS can attract sufficient numbers of loyal customers, the benefits can trickle down to the producers in the value chain. A successful RSS has many benefits for a community such as reduction of unemployment, poverty, food security, and improvement of living standards of the rural farmers (Salam, 2009). As revealed by many studies, customer satisfaction and customer loyalty are critical in determining how well a retail store does in a competitive market (Parasuraman *et al.* 1988). In regard to this, service quality and marketing mix (i.e. product, price, place and promotion) are two broad factors that affect customer attraction, satisfaction and loyalty.

Gannoruwa is a sub-urban town in the central part of Sri Lanka. HSC is a

Service Quality, Marketing Strategy and Producer Benefits of the Gannoruwa Road-side Station retail store there established by a government authority (HB⁴) in 2006. It is located on a main road and sells fresh vegetables, fruits, other farm goods and cottage industry products. HSC is managed by the government authority, gets its supplies mostly from smallholder farmers through the farmer organizations attached to the authority. The Department of Agriculture (DoA) maintains a food court (HBH) in an adjoining building that sells traditional food prepared by local women entrepreneurs who are a group of housewives of the local farming community. Both HB and DoA are government organizations administered under the Ministry of Agriculture, but each has a separate administrative structure. In our study here we ask the question: Can the combined HSC and HBH road side market model (RSS) be effectively used to address the issues of agricultural producers and customers in Sri Lanka? While focusing more on the HSC, the study attempts to evaluate the strengths and weaknesses of the Gannoruwa RSS through the measured perceptions of customers on service quality and marketing strategy and the benefits gained by the producers⁵.

Methodology

Our research is a cross sectional study conducted at the Gannoruwa RSS. Located on the new main road leading to Colombo about five kilometers away from Kandy, the RSS is surrounded by many government institutions related to agriculture. The main focus of the study was on the HSC to find out its strengths in the agricultural marketing system. Our methodology can be broadly divided into two areas based on what they were to determine: A) benefits gained by farmers attached to the HSC; and B) customer satisfaction

⁴ To maintain the anonymity, this paper will use HB to denote the authority and the people connected to it.

⁵ This paper presents a part of the research, which was conducted in RSS interviewing four groups of subjects namely the customers as well as producers of HSC and HBH.

using service quality and marketing mix of HSC.

Based on the notion that the extent of service quality is determined by the degree of meeting the before-service expectations (expectation) of customers with their actual service experience (perception), Parasuraman et al. (1988) have developed a generic instrument to measure service quality, which is popularly known as SERVQUAL. Our research employed SERVQUAL instrument to measure service quality, which includes five main quality dimensions: tangibles, reliability, responsiveness, assurance and empathy. According to this, perception on service quality and antecedent of customer satisfaction can be expressed in the following equation:

$$\text{Service quality} = \text{Perceived service (P)} - \text{Expected service (E)}$$

According to the above equation: 1) a customer may consider a firm's service to be excellent if perceptions exceed expectations significantly; 2) service will be regarded as good or adequate if it only equals the expectations; 3) service will be classed as bad, poor or deficient if it does not meet expectations (Vázquez et al., 2001 as cited in Krishna, et al., 2010). Since different dimensions contribute to customer satisfaction at different levels, it is important to calculate the weights for each of the five dimensions constituting the SERVQUAL scale (Daniel, et al., 2010). SERVQUAL helps managers to identify the areas of service delivery that need special attention and decide what actions need to be taken to tackle problems that arise (Jyotsna, 2012).

Marketing strategy was assessed through four independent variables in the marketing mix: product, price, place and promotion, measured using an equation similar to the "perceived service – expected service" equation presented earlier. It was presumed that service quality and marketing mix influence customer satisfaction, which results in attracting more loyal

Service Quality, Marketing Strategy and Producer Benefits of the Gannoruwa Road-side Station customers, ultimately helping the HSC to improve the livelihoods of participating farmers.

The sample respondents were selected randomly and consisted of a total of 59 HSC customers and 72 producers (they will also be called farmers and suppliers interchangeably), who supply agricultural products to the HSC. Two pre-tested questionnaires were used to collect data from the producers and customers. In addition, key informant discussions were conducted with the other stakeholders of the RSS including the management staff and employees of the HB authority and the DoA. Quantitative as well as qualitative data were collected for the analyses. Findings of the study were backed by secondary data. Descriptive statistics gave a quantitative support besides qualitative information from key informants and researchers' observations.

Results and Discussion

Benefits gained by HB farmers

According to the HB authority, the aim of the HSC is to give better prices to rural farmers, provide agricultural products to urban consumers at lower prices, promote traditional food crop consumption, minimize postharvest losses, and provide employment opportunities, especially to farm families. In addition, it also tries to promote organic agriculture and organic products, provide high quality fresh and uniform products and offer farmer training. More than 50,900 farm families were empowered by the HB authority during the period from 2007 to 2012 (up to October). Table 1 presents data on sales, purchases and profit increase during the above period. From this we can see that the HSC generated better income for the farmers and profits to the HSC. It is important to note that during this period the marketing margin of HSC increased from 7.5 to 14.3, but was still below the margins kept at the

Table 1: Progress of the HSC from 2007 to 2012

Description	2007	2008	2009	2010	2011	2012*	Total
Sales (Rs. Mn.)	43.7	63.4	70.6	83.4	97.0	69.5	427.6
Purchase (Rs. Mn.)	36.2	53.8	58.2	69.2	78.2	64.9	360.5
Gross Profit (Rs. Mn.)	7.5	10.0	12.6	14.1	18.3	14.3	76.8
Other expenditure (Rs. Mn.)	6.8	10.0	11.1	12.5	13.6	7.3	61.3
Net Profit (Rs. Mn.)	0.7	0.05	1.5	1.8	5.1	6.4	15.5
No. of Employees	15	28	25	29	33	26	

Note: * Up to October; Source: HB Authority, 2014

traditional supply chain. A considerable number of employment opportunities, mainly for family members of rural farmers, were created. These increased from 15 in 2007 to 26 by 2012.

The HB farmers are a group of farmers who have been resettled in Sri Lanka's Central Province under the Mahaweli development project. The majority of the respondents (59%) in our study were males. Most were aged between 20 and 60 years (68%). The rest were older than that. Most of the farmers (75%) had more than 16 years of experience; 37% had more than 30 years of experience in farming. The respondents had a relatively good education level. About half of the group's (52%) education level was recorded as the GCE Ordinary Level or above. Only 14% of the respondents had only primary level education.

There are five capitals that help people to survive and maintain long-term sustainability: human, social, physical, natural and financial (Cutaran, 2008; Kleih *et al.*, 2003). The fundamental requirement for livelihood improvement in rural area is the enhancement of these capitals among the people there (Kleih *et al.*, 2003). The following discussion is on the contribution of the HSC to the livelihoods of rural farmers with respect to the five capitals described above.

In terms of human capital development, the HB authority has conducted many training and awareness programs on farming. The training sessions not only have included techniques in increasing crop production but also quality improvement methods, postharvest control and information on packaging, financial management, environmental conservation etc. The authority provides various support services to the affiliated farmers related to inputs, machinery and tools, information, financial services, marketing facilities etc. in order to improve their farming businesses. Most of the HB farmers are using various farming practices in order to get a higher yield. Soil management, crop diversification, integrated pest management, bio dynamic farming and organic agriculture are also practiced by the respondent farmers. As they have been practicing farming for a long period, they also employ their field experience as well as traditional knowledge.

As far as social capital is concerned, some farmers have gained advantages from participating in groups for things like purchasing inputs, transporting their produce, etc. Many farmers are also engaged in social activities such as *shramadana* (offering free labor) for village development work, and organizing community festivals. This kind of farming community, identified by outsiders as “HB farmers”, can engage in different activities and join various programs to collectively resolve their problems at the community level. In many ways, the HB programs have influenced and changed the social conditions of participating farmers in areas like social status, participation in social activities, relationship with neighbors, and ability to withstand food scarce period with the support of community members, etc. The authority has also helped to link government institutions and officials such as agriculture instructors and agriculture research and production assistants with the HB farmers.

HB farmers were resettled in rural areas, some in marginal tea lands and

others in areas with undisturbed natural vegetation and forest covers. With respect to natural capital formation, appropriate climatic conditions along with proper soil management have helped some farmers to convert their lands in to Kandyan Forest Gardens, which are rich in biodiversity and produce a variety of perennial crops. Some farmers live in places where many natural resources could be found, either in their own home gardens or nearby forests. Some of these have accessed a variety of non-timber products for home consumption and to sell in the HSC.

The majority of the respondents said they were satisfied with their lands available for crop production. In regard to land distribution among farmers, the majority of them (93.1%) have a home garden, of which some are Kandyan Forest Gardens. These provide extra income which can be used particularly during difficult times. The majority are satisfied with the extra income generated from their home gardens. Some farmers own lowlands (79%) for paddy cultivation and uplands (65%) for field crop cultivation. Some of the farmers are engaged in animal husbandry too.

The majority of farmers have a negative view about the suitability of climatic conditions on vegetable production. According to them, the present rainfall pattern is highly unpredictable, and it has changed a lot with climate change. The binomial rainfall pattern that existed for centuries is not clear anymore. Due to that they have to face unexpected drought periods and (or) too much rain that result in crop losses. The majority of the sample farmers said that rain water is not sufficient to raise their crops. While some farmers are satisfied with the fertility of their soil, farmers who have been resettled on marginal tea lands stated that their soil has been highly degraded. The HB authority has conducted many soil conservation and management programs -- on things like SALT technique, terracing, adding organic matter, etc. -- to improve soil fertility. While certain farmers have adopted such practices and

Service Quality, Marketing Strategy and Producer Benefits of the Gannoruwa Road-side Station improved their lands, others have not.

With respect to physical capital formation, in the selected farming communities almost all (99%) farmers have their own houses. Most of these houses have plastered brick walls (48%), asbestos roofs (52%), and properly constructed toilets (88%). Our surveys also revealed that almost all the respondents own radios (96%) and televisions (98%), and thus have access to mass media. More than one third of the sample has motorized transportation: either a motor cycle (16%) or motorized three wheeler (20%).

The majority of the farmers are either neutral or dissatisfied with infrastructure facilities (i.e. roads, irrigation, electricity and public buildings) available in the village as well as with access to machinery needed in farming. Roads in particular have not been properly constructed and maintained, thus, transportation is rather difficult. Poor infrastructure affects the livelihoods of the farmers by creating postharvest losses due to damaged roads and not having suitable vehicles to transport their harvests. Only about 40% of the farmers are satisfied with the physical support (transport and machinery) given by the HB authority. Most are satisfied with the availability of farm inputs, including financial inputs, planting materials, fertilizers given at subsidized rates by the government.

On the topic of financial capital formation, our surveys revealed that the majority of farmers (51%) receive a net monthly income of Rs. 10,000 to 20,000, from their sales at HSC. About 10% of the farmers receive an income between Rs. 20,000 and 50,000, while the rest (39%) receive less than Rs. 10,000. It is important to note that many producers only supply products from their home garden, which otherwise is usually wasted. Large-scale farmers supply only a part of their production to the HSC. The rest goes through the traditional supply chain because of demand constraints at the

HSC. For many suppliers close to Kandy city, farming is only part time employment. Overall, our results revealed that HB farmers have received many benefits with respect to capital formation after becoming a partner of the HSC.

Satisfaction of HSC customers

Our sample of 59 randomly-selected HSC customers was made of members of both genders: 46% were male and 54% were female. The mean age of the HSC respondents was 40 years, ranging in age from 22 to 68 (SD – 11.99). Purchasing behavior of the customers depended on income level. Many customers visiting the Gannoruwa HSC (38.8%) were from middle-income-earning households having a monthly income between Rs. 50,000 and 100,000. Households making less than Rs. 50,000 per month constituted 36.7% of our sample. Purchasing behavior of the customers was highly affected by level of education as well (Abdul *et al.*, 2014). The majority of the customers who visited the HSC had higher education levels (50% with tertiary educations and about 88% with education equal or above the GCE (A/L) qualifications).

The majority of the customers of the HSC (60%) were employees at hospitals, the DoA and other government departments, the University of Peradeniya, schools and business organizations centered around Peradeniya and Kandy municipality limits. They could be regarded as potential loyal customers. The rest of the customers were mostly one-time visitors coming from various parts of the island including Mathale, Nuwara Eliya and Colombo districts. Forty nine of the 59 respondents stated their jobs fell into 19 different occupation categories such as education, medical, engineering, business etc. There were significant proportions of university students (20%), teachers (18%) and business people (10%) among the customers.

In the close proximity to Gannoruwa RSS there are other different entities such as a plant nursery, an Agro Park of the DoA and other government organizations. The majority of the HSC customers (88%) said the main purpose of their visit was to purchase goods from the HSC. Other purposes for visiting the HSC included stopping by while visiting the HBH, the plant nursery and nearby workplaces or offices. Our survey revealed that, 25% of the HSC consumers also visited the HBH. This finding indicates the complementary nature of the HSC and HBH. Both entities benefited from each other and both showed great growth potential. While it might be difficult for the HSC and the HBH to enter into an administrative-level of integration, it seems likely that both would benefit from functional level integration and expand by enhancing operational efficiency through resource sharing.

Figure 1 shows the reasons why consumers shop at Gannoruwa HSC. The respondents were asked to select their reason from a list of statements, developed from the goals of the HSC and general customer reviews, which have been given in the vertical axis of Figure 1. Responses are ranked on a Likert scale ranging from 1 (strongly disagrees) to 7 (strongly agree). They



Figure 1: Purpose of buying at HSC

were mostly positive as the mean scores for all the statements were between “neutral” and “strongly agree” levels. As indicated by the highest mean score, HSC customers shopped at the HSC because they perceived it being a different type of shop. They also believed that the HSC sold organically grown traditional products and a large portion of the profits went to local farmers.

Service quality of HSC

As indicated earlier, perceived service quality of the HSC, and antecedent satisfaction can be measured through the gap between the perceived service quality of the HSC (P) and customer expectations of service of an ideal vegetable store (E). Researchers investigating customer behavior sometimes assign different levels of importance to five dimensions of customer service quality. Based on a 100 point scale, respondents in our study were asked to assign the most points to the most important SERVQUAL dimension and fewer points to the least important dimensions. Based on our results, the ranking of the SERVQUAL dimensions (from most important to least important) were: responsiveness (22.82%), assurance (21.55), reliability (21.18%), tangibility (19.27%) and empathy (15.18%). The average importance score was used to weigh the gap scores for each dimension. Weighted scores were established by multiplying the dimension weight and the dimension gap score. The weighted score helps to clarify the significance of the perception/expectation gaps that were measured during this study. Figure 2 shows the results according to the SERVQUAL dimensions, with weighted and unweighted gap scores. All the dimensions have negative service quality gaps.

Tangibility: Physical environment, in which the service is delivered and where the firm and the customer interact, as well as tangible commodities, that facilitate performance or communication of the service, play an

important part in service quality. “Tangibles” refers to the tangible elements of a service and includes aspects such as the appearance of physical facilities, tools and equipment, employees, and communication material.

The tangibility dimension of the SERVQUAL tool assesses perceptions of tangible appearance in four areas: 1) modern equipment and physical facilities; 2) clean and visually-appealing physical facilities (e.g. shelves, counters, refrigerators, lights); 3) well-dressed and neatly-groomed employees; and 4) visually appealing materials (e.g. product & price displays, baskets, bills). In each of the four areas, as one would assume, expectations of an ideal retail vegetable store (E) exceeded perceptions of the HSC (P), with P-E gaps ranging from -0.93 to -1.43. Since all the values are negative, we can say customer satisfaction is low. The average unweighted gap score (P-E) for the tangibility dimension of customer satisfaction is -1.19. When applying the tangibility weight score 19.27 to the gap score, the weighted gap score jumps to -22.84. HSC customers have the option of shopping at modern supermarket chains including Food City, Keells Super, Royal Mall and Arpico Super

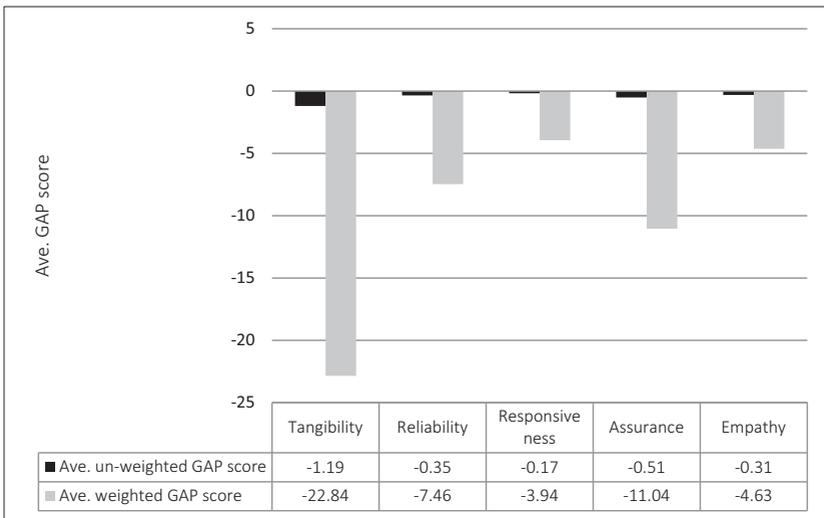


Figure 2: Gap Scores of SERVQUAL dimensions of the HSC

Center. All of these are located within a one-kilometer radius of the Gannoruwa HSC. There is a propensity for customers to compare the HSC with those super markets, which generally have modern equipment, clean and visually-appealing physical facilities (e.g. refrigerators, coolers, shelves, counters, and lights), well-dressed and neat employees and visually-appealing product and price displays, baskets, and bills.

Assurance: Knowledge and courtesy of employees and their ability to instill trust and confidence are the major factors in assurance dimension. Assurance has a significant relationship with service quality and customer satisfaction. The assurance dimension of the SERVQUAL tool is comprised of four aspects: 1) behavior of employees to instill confidence in customers; 2) feelings by customers that their transactions are safe; 3) ability of employees to be consistently courteous and polite; and 4) knowledge of employees when answering customers' questions. With the exception of "behavior of employees instill confidence in customers," all other statement had negative values. The weighted gap score was -11.04, indicating poor service quality. Unlike the high-end supermarkets in the Kandy area, the HSC does not have well-trained staff. Sales assistants are mostly from the families of rural HB farmers. Employees are selected based on the Corporate Social Responsibility principles of the HB authority rather than merit, marketing skill or competence. A lack of well trained staff creates a major bottleneck in providing assurance to the customers.

Reliability: Reliability is the ability to perform the promised service dependably and accurately. The reliability dimension of the modified SERVQUAL tool is comprised of five factors: 1) fulfilling promises to do something by a certain time; 2) showing a sincere interest in solving customers' problems; 3) performing a service correctly the first time; 4) keeping accurate records, price lists, and billing; and 5) reliability due to the

Service Quality, Marketing Strategy and Producer Benefits of the Gannoruwa Road-side Station affiliation to a government organization. With the exception of “reliability due to the affiliation to a government organization” (gap score of 0.22), all other factors had negative P-E gaps, ranging from -0.24 to -0.74. These negative values indicate poor service quality and customer dissatisfaction. When applying the reliability weight score of 21.18 to the gap score, the weighted gap score amounts to -7.46.

Empathy: Empathy in market terms is the extent to which caring, individualized service is given. When a firm exhibits consistent empathy, it creates unique, sustainable customer relationships that are difficult for its competitors to replicate. In our study we examined four aspects of empathy: 1) providing individual attention to customers; 2) understanding customers’ specific needs; 3) offering convenient operating hours; and 4) having the best interest of the customers at heart. Of these, customers assigned negative gaps to the first two factors. However, the gaps on “having convenient operating hours” and “having the best interest of the customers at heart” were positive. The HSC opens a little earlier and closes later than the usual office hours -- a period that seems to be convenient for customers. The weighted gap score for empathy dimension was -4.63.

Responsiveness: Responsiveness is the tendency and willingness of service providers to help clients and satisfy their needs, immediately reply to their inquiries, and solve their problems as quickly as possible. Responsiveness and reliability are classified as technical dimensions of service quality. The responsiveness dimension of the SERVQUAL tool is comprised of four factors: 1) informing customers exactly when services will be performed; 2) providing prompt service to customers; 3) always being willing to help customers; and 4) having employees that are never too busy to respond to customers’ requests. In each of these four factors, P-E gaps were negative but small. When applying the responsive weight score of 22.82 to the gap

score, the weighted gap score increased to -3.94. Negative scores obtained for Responsiveness can partly be attributed to the inadequate number of qualified staff.

The overall weighted average total SERVQUAL score was calculated to be -9.912. When considering the total SERVQUAL scores, the paired wise t- test was applied to compare the total expected and perceived SERVQUAL scores. It shows a significant difference between expected and perceived results related to service quality. The t- test was significant at a 95% confidence level, with $p= 0.000$ and the t-value = 4.154. Accordingly, as perceived by the customers, HSC service quality is not up to the standards expected. Major service quality gaps were found in Tangibility and Assurance.

Marketing strategy

Marketing is everything done on a daily basis to sell a product or provide a service to a customer. In order to create brand equity and customer loyalty, product- or service-related organization should manage and shape product, place, price and promotion strategies (Sadıç, 2010). Organizations need to find the best way to access customers and make sure that they are satisfied with products and services. The Marketing Mix model (also known as the 4 P's) is used by marketers as a tool to implement marketing strategy. Research done on marketing mix and customer satisfaction indicates that the four element in marketing mix and customer satisfaction have a significant relationship with each other. Therefore, any gap in the product, price place or promotion could have a direct effect on the customer satisfaction. Table 2 indicates the gaps (i.e. the difference between Perception - P and Expectation - E) in the marketing mix of the HSC.

Product: Products are the primary reason why people go to make purchases in retail stores and so that cannot be neglected when measuring customer

Service Quality, Marketing Strategy and Producer Benefits of the Gannoruwa Road-side Station satisfaction. According to the respondents, majority of the customers use the HSC to purchase vegetables (75%). Fruits are the next highest sought-after item (37%) followed by spices (19%), grains (17%), traditional food items (14%) and livestock products (10%). “Vegetables” is the main product category of the HSC. The quantities in other product categories are relatively small.

Table 2: Marketing mix gaps in HSC

Product	P	E	P-E
The products in vegetable store should be of good quality (hygiene and freshness)	5. 81	6. 54	-0. 73
The products in vegetable store should be free of damages	4. 89	6. 33	-1. 44
Vegetable store should have enough variety of products (diversity)	5. 46	6. 21	-0. 75
Vegetable store should have organic products	4. 93	5. 98	-1. 05
Place			
Customer should be able to purchase any quantity (small or large amounts)	6. 00	6. 25	-0. 25
Location of the retail shop should be conveniently accessible	5. 86	6. 31	-0. 45
Ample and convenient parking should be available	3. 91	6. 36	-2. 45
Price			
Products and services of a vegetable store should give best value for money	5. 90	6. 46	-0. 56
Profit should be distributed among all stakeholders	4. 69	4. 98	-0. 29
Promotions			
Vegetable store should give out seasonal offers and conduct other promotions	3. 59	4. 86	-1. 27
Vegetable store should display the products available and daily prices outside the outlet	3. 83	5. 68	-1. 85

Note: E - Expectation and P - Perception

Product quality is a very important aspect of customer satisfaction. In a traditional supply chain, product quantity is generally given a higher priority than quality. If proper packaging is not done and products are packed in sacks, the products may be compressed during transportation, resulting in mechanical damages to the products. Post-harvest handling measures required by the HSC ensure that products reach the store fresh and

undamaged. Farmers are encouraged to grow produce organically or use minimal amounts of agrochemicals and inorganic fertilizer. Products are carefully handled and packed in plastic crates and transported as early as possible. Transportation is done mainly by ventilated trucks that have not been overloaded. Produce is not exposed to hot sun or rain and care is taken during loading and unloading. This has helped to reduce postharvest losses to a range of about 10 to 20% from 20 to 40% -- a range often found with traditional supply chains. The products are sorted for quality in the presence of farmers so farmers are aware of the quality levels expected of them.

As is indicated in Table 2, product dimension at the HSC has negative scores, indicating a gap in product quality. Even though measures have been taken to improve the quality of produce there, customers' level of expectation is not met. This gap is perhaps due to: A) the high quality of products available in high-end supermarket chains (these stores have their own supply chains and high quality standards); B) a considerable proportion of products are still coming through traditional supply chains, with poor quality control, transportation and handling; C) disappointment by customers that few products other than vegetables are available; D) a perception among customers that the HSC sells only organic products (although the HSC promotes organic products, most of the products it sells are not organic); and E) the natural damage and uneven sizes and shapes found on the home garden products, which are mostly organic.

Place: The place products are sold, the distribution system that brings products or services to customers, and the different methods through which customers can buy products has a strong influence on customer satisfaction and type of products purchased by customers. Although not presented in Table 2, as the customers were not aware of it, our study found that the supply chain of the HSC is much shorter than the traditional vegetable

supply chain where products are transferred from producers, to collectors, to wholesales and then to retailers. In the HSC supply chain, farmers' produce is supplied directly to the retailer (HSC) through farmer organizations. The vegetables are collected from nearby villages. Shorter transportation distances and shorter time periods between harvest and purchase are the norm.

According to literature on marketing and retailing, merchandising and store atmosphere also influence consumer satisfaction (Ganesh and Kuksov, 2009). Accessibility for customers and distance-related factors can affect the suitability of a place. Table 2 shows the gaps in the place category related to the marketing mix analysis. This negative customer feedback in regard to place shows that the location of the HSC does not fully satisfy customers. The space inside the shop is inadequate especially during the rush hours. A retail shop should provide ample and convenient parking. The HSC has no specified parking area, thus customers who arrive in their own vehicles park in the few slots available at HBH parking or along the sides of the road. We observed a large congestion of vehicles during peak hours. In some cases, disappointed customers left the HSC area empty handed after failing to find a parking space for their vehicles. The problem was particularly acute because the HSC is located on the very busy new Kandy-Colombo main road.

Price: To sell a product for a particular price, value must be created. Value is the consumer's estimate of the product's overall capacity to satisfy his/her needs (Ronald, 2005). Price refers to how much is charged for a product or service. Price is a very critical factor in consumption. It affects not only customer satisfaction but also buying behavior. There was a negative gap in the price dimension in our study. This shows that the perceived price level was not as good as the level expected by the customers, but this level was not much higher than the product-related gap. In a traditional supply chain

there is no proper pricing system. The price is decided by the wholesalers. When there is excess supply, producers get very low price. At the HSC, price is decided by a committee comprised of members of the farmer organizations. The committee meets once a week and payments are made to farmers on a weekly basis. The pricing mechanism at the HSC is more favorable to farmers than customers. Customers do not get a big price advantage by shopping at the HSC. In traditional supply chains both the producers and the consumers are price takers, whereas at the HSC, an advantage is given to producers.

Promotions: Promotion is the production of marketing communication to inform, persuade, remind and/or influence consumers or users to favor a product or service. Table 2 shows the gap in promotion at the HSC. There is a negative gap as customer expectation is higher than the customers' perception on the existing situation. According to the findings in our study, 34% of customers became aware of the HSC mainly through friends (through informal contacts). No one became aware of the HSC through sales promotions or advertisements (tools used extensively by the supermarket chains) as the HSC does not promote itself in this way. Other ways customers became aware of the HSC included: travelling (16%), knew about it from the beginning (10%), with a small proportion finding out about it through their work place, and the Agro Park. In respect to the HSC, it is important to increase the service capacity prior to any major scale promotion campaign since the HSC is struggling with limited space and well trained employees.

Conclusions

The objective of this study was to analyze producer gains and customer satisfaction at the HSC, a part of the Gannoruwa RSS. The study revealed that the HSC has helped participating farmers to improve their human, social,

natural, physical and financial capitals, and had positively impacts on their socio-economic conditions and living standards. However, there were negative gaps observed in both service quality and marketing mix as perceived by HSC customers. Despite having a weak service quality and marketing mix, the HSC has somehow managed to perform successfully during the last six to seven years. Our study identified several reasons for the HSC's success such as: 1) nearness to many government agencies; 2) being located next to the HBH; 3) trust associated with being a government enterprise; and 4) customer willingness to support poor farmers in the region. These reasons have given a competitive advantages to the HSC, which have helped it to generate profits and contribute to the HB farmers' livelihood improvement. However, if the prevailing negative service quality and marketing mix issues are not addressed soon, the sustainability of the HSC may be in doubt. Our study was able to determine priority areas within the service quality and marketing mix dimensions that need improvement to overcome shortfalls and spur growth opportunities. Our findings revealed the enormous growth potential of the HSC which can be realized through: 1) development of the physical layout of the store, including parking; 2) training employees; and 3) having more quality products, including organic products, at competitive prices. The HSC should conduct frequent customer surveys to find what their customers expect. By attracting new customers, while retaining the current loyal customers, the HSC can generate more sales and profits and thus increase farmer income and contribute more to the development of rural households. The study concludes by saying that more studies conducted comparing the HSC and the RSS with similar operations elsewhere in the world (i.e. Japanese Roadside Stations) can give insight into expansion and firm upgrading efforts. In addition, it seems likely the HSC and the HBH can improve their sales by integrating their services at least on certain functional levels.

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