Chapter II

LITERATURE REVIEW

In this chapter, the literature review for the concept of market performance and efficiency, marketing channels, market integration, price transmission and market information service have been revised.

2.1 Market performance and efficiency

Kohls and Uhi (2002) defined market performance as a measure how well the food marketing system performs what society and the market participants expect of it. Attempts to measure and influence market performance have given rise to another approach to market analysis. Increased efficiency is in the best interests of farmers, traders, processors, wholesalers, retailers, consumers and society as a whole. The efficiency of a marketing system is measured in terms of the level and or costs to the system of the inputs, to achieve a given level and or quality of output. Such inputs are generally in the form of land, finance, time, manpower and materials. Typical output include the movement of a given amount of product to markets at specific distances, the supply of a particular level of service to target market segment and the supply of products at target price. Hence, resources are the costs and utilities are the benefit that comprises the marketing efficiency ratio. Efficient marketing optimizes the ratio between input and outputs.

Blesser and King (1979) also referred market performance as economic results: product suitability in relation to consumer preference (effectiveness); rate of profits in relation to marketing costs and margins; price seasonality and price integration between markets efficiency. In sum, market performance refers to the impact of the structure and conduct as measured in terms of variables such as prices, costs and volume of output.

By analysis the level of marketing margins and their cost components, it is possible to evaluate the impact of the structure and conduct characteristics on market performance (Bain,1998).

2.2 Market channels

Many researchers have studied the market performance by measuring the extent in order to fulfill the conditions required for a perfect competition. Literally, market access concentration and information are the limiting factors for perfect competition. However, markets are always less than perfect and it is a very rare case to fulfill simultaneously all the conditions for a perfectly competitive market.

Knowing that markets do not attain a stationary equilibrium and that information is always imperfect the market is driven by entrepreneurship (Kirzner, 1973). It is a process where actors adjust their decisions in time owning to the availability of new information. It is important to verify whether the process leading to channel improvement is not hampered. This competitive process will force the market to look for improved production and distribution on the basis of past experiences. Therefore, analyzing market competition in relation with the market process will help to examine whether the process of competition promotes channel improvements.

Kohls and Uhi (2002) defined marketing channel as alternative routes of product flows from producers to consumers. They focus on the marketing of agricultural products as does this study. Their marketing channel approach focuses on firm's selling strategies to satisfy consumer preferences. The performance of a marketing channel is related with the composition of its structure and the behavior of the intermediaries and the movement of the product from producer to consumer, the concept of marketing channels or channels of distribution need to be analyzed.

2.3 Market integration and price transmission

Barret (1996) mentioned that vertical market integration involves stages in marketing and processing channels, spatial integration relates spatially distinct markets and intertemporal integration refers to arbitrage across periods. If two markets are integrated a shock to the price in one market should be manifest in the other market's price as well. Among perfectly segmented marketed price series should be independent. Co-movement of price has thus become synonymous with market integration.

Measures of integration have not advanced much however, there have been several attempts to apply regression analysis to market integration but perhaps the best known was by Ravallion (1986), who used it to analyze the relationship between prices in different markets around the time of the 1984 famine in Bangladesh. by permitting each local price series to have its own dynamic structure (and allowing for any correlated local seasonally or other characteristics) as well as an interlinkage with other local markets the main inferential dangers of the simpler bivariate model can be avoided. An application of this approach to monthly rice price data for Bangladesh suggests some quite significant departures from the condition for both short-run and long-run market integration.

Faminow and Benson (1990) applied it to hog prices in Canada, although stressing the importance of a prior understanding of both market structure and institutions in order to interpret results and avoid coming to misleading conclusions about market integration.

Sextons, Kling and Carman (1991) explained a lack of market integration by three factors: (a) markets are autarkic, i.e., no arbitrage is possible because, for example, transaction costs are too high in relation to price differences or because of public market protection, (b) there are impediments to efficient arbitrage, e.g., trading barriers, imperfect market information, or risk aversion, (c) there is imperfect competition because of, for example, collusion or preferential access to scarce

resources (e.g., transport, credit) that may lead to higher price differences between markets than transaction costs can justify.

Lutz (1995) reported that market integration among two or more markets is a multidimensional concept implying similarity in price variation (price integration), standardization of measures and common trade habits. Price integration is therefore one of several necessary conditions for market integration. In a competitive price market, price integration is the outcome or an arbitrage process: exchange (trade) between actors in different markets who aim to take advantage of price differences that exceed transaction costs.

Meyra (1995) stated the dynamic and efficiency of Philippine corn market. He analyzed the corn market integration with monthly wholesale prices of yellow corn and white corn in major crop production regions during 1980-1988 by using co integration and error correction model. Knowledge about the lead lag price relationships among markets provide a better understanding of the dynamic and efficiency of arbitrage in transmitting information. The result indicated that a stable long-run relationship exists among the markets. However, a price divergence was observed due to market shock in short-run. The survey results and time series analysis taken together indicated that the market integration is weakened by the presence of structural rigidities. Although there were indication of a relatively competitive market structural, access to these outlets by farmers appears to be partly restricted by the absence of transportation and infrastructure facilities and poor marketing performance.

Hayami (1998) reported about middlemen and peasants in rice marketing in Philippines. The results of the survey covered all links in the channel of rice marketing from farmers to consumers in Laguna province, in Philippines. They had highly competitive nature of rice marketing where several middlemen compete in the procurement of paddy from farmers and living little room for monopoly. The result showed that farmers received about 70% of consumers' shares and the rest 30% comprises the total marketing margin. Of this total margin, less than half is the income of all the events involved in the marketing chain. The share for each

marketing agent estimated to be about 5% of less of the retail price. If mills or traders store commodity for about 3 months from harvesting to lean months, the marketing margin can be increased about 50% of the retail price.

Guvheya (1998) stated the operation of the smallholder horticultural marketing system in Zimbabwe. The paper described the adverse effects on market performance and make suggestions for improving the welfare of farmers and consumers. There inter-related aspects of market performance were investigated, namely, distributed marketing margins, the determination and symmetry of prices along the main marketing channels and the degree of spatial market integration. The analysis involved investigating if each pair of trading markets is integrated or not. Co-integration analysis is the tool that has been used to establish whether markets have a tendency towards a long-run equilibrium. Co-integration is a necessary but not sufficient condition for short-run market integration. If markets are integrated any short-term segmentation is conceived as part of an adjustment process towards a long-run equilibrium. When contemporaneous prices between two markets are co-integrated, we say that the two markets are spatially integrated. The result of the distributed marketing margins described the average farm-wholesale gross margin of 60.44 kg is much lower than the wholesale-retail gross margin of $1.76 kg. The retail price was $4.75 kg, indicated that the total gross margin are significant high, accounting for 43% of the total price paid by consumers. This finding referred some level of market imperfections. Though Granger causality test, price flow were determined from the farm level to wholesale and from wholesale to retail. The Houck procedure indicated that asymmetric transmission of prices occurred between wholesale and farm level, which is indicative of inefficiencies along the channel. Co-integration analysis indicated that most market pairs are co-integrated, however, some are not co-integrated. These results conform that markets are closer to each other and connected by well developed infrastructure are integrated and market that are far-flung are not.

2.4 Agricultural market information services

Andrew (2000) identified market information services experienced a number of problems with price data collection as (1) lack of clear definition as to the type of price being collected (e.g. wholesale or retail), (2) lack of standardization with regard to grades, qualities and varieties, and (3) inadequate training of data collectors, due primarily to a lack of resources. Problems were also experienced with data dissemination. The emphasis of many MIS is on the use of printed bulletins rather than on radio and television, with the result that information reaches farmers only slowly. Even where dissemination of information is carried out well farmers, who in most cases were operating under a system of central planning until a decade ago, often have problems in understanding and using the information provided. And he recommended MIS to pay greater attention to the needs of farmers. These needs are presently best met by regular, reliable broadcasts on radio and television. MIS are recommended to prepare scripts for weekly or more frequent broadcasts. These should cover the same products, in the same locations, according to season. MIS should liaise with the media to ensure that texts provided are consistent with the broadcast time or newspaper space available.

Alexander (1995) reported that the Indonesian MIS was established with GTZ technical assistance which is mainly oriented towards vegetable producers. Prices are collected daily from Monday to Friday in 19 production areas and at 20 wholesale markets in eleven provinces. Reports are broadcast on local and national radio daily. In Benin, GTZ worked between 1993 and 1997 to develop an MIS. Prices are collected on every market day in about 20 markets in all six provinces. Dissemination is by radio and a monthly bulletin. The Indonesian and Benin MIS were primarily market price information systems.