During the past few years, the economists have given increasing recognition to the role of marketing in the agricultural development of the less developed countries. As a result, the governments of almost all the developing and the developed countries have entered the markets in one way or the other. Farm price supports in the United States began (apart from some tentative moves in the 1920's) with President Roosevelt in 1933. Since then many econometric cross-section studies with U.S. data have been undertaken to examine the impact of various types of government marketing programmes on the farm sector. But the conditions in the U.S.A. are entirely different from those of India. In a country with a large and wealthy urban sector and a comparatively small agricultural sector, a transfer of resources to the agricultural sector could be carried out without too much dislocation. In a country like India, with some two-thirds of the labour force still engaged in agriculture, and a weak and struggling urban sector, the situation is entirely different.

Some studies with the U.S. base are there, but these are not reviewed here owing to their limited relevance, except those dealing with theoretical constructs related to market structure. In case of India only a few studies related directly to the impact of government marketing operations on foodgrain market structure, conduct and performance have been conducted. At regional levels, this aspect of agricultural marketing research has almost remained neglected.
To be able to formulate the problem precisely and to pinpoint a rationale for its undertaking, it seems logical to present a brief review of the researches done mostly in the developing countries related directly or indirectly to the problem. What follows, makes no pretence of being an exhaustive review of all investigations done on this problem, rather it has been given to indicate, in a general way, the type of work done in this direction in India and in some other developing countries.

First a review on the theoretical constructs related to market structure, conduct and performance is given. In this section, a few U.S. studies are included. It is followed by empirical studies dealing with the market structure, drawn mostly from the developing countries. The first section on empirical studies reports the behaviour of market supply and retentions of foodgrains by the farmers as affected by changes in production. The second section deals with the review which supports the functioning of private trade in the foodgrain marketing system. Third section deals with the review of investigations (mostly government reports) which support State intervention in foodgrain markets in the developing countries. Thereafter, the studies showing State intervention in the foodgrain markets as a source of market imperfections are examined. This section includes the review of literature dealing with the zonal policy, procurement programmes of government and State-take over of wholesale trade in foodgrains.

It may, however, be pointed out that this division of the review of literature into different sections is not mutually
exclusive. A particular study has been assigned to one section or the other purely on the basis of its major focus. The main reason of dividing the literature into different sections is to identify the area of research, which have thus far remained neglected.

A. Theoretical Work on Market Structure

Johnson (1947) studied the economic role of the prices in achieving a desired allocation of resources. The author examined the following broad features of price models drawn, of course, from the U.S. agricultural conditions with, of course, some policy implications for developing countries. (1) that the prices should be known by the farmers well in advance of the sowing season so that they could adjust their resource use, (2) the prices should cover a sufficient period of time to permit completion of production plans with reasonable certainty, and (3) that information on such prices should be sufficiently clear and precise so that each farmer could easily interpret their implications for his purpose. Storage was described to be an essential part of market structure and to secure an adequate investment in it, the prices normally would rise during the lean period of the year.

Johnson (1950) examined the problems and policy implications of the unstable agricultural prices. It was reported that the instability of commodity prices would fail to serve as an adequate guide to the production plans of the farmers. It would also create imbalances between demand and supply and also affect efficiency in the allocation of resources. A case for forward prices was made. It was suggested that such prices should be formulated by a group
of exports. The support prices announced well in advance of the sowing season would encourage investment in farm production. It would also assist the farmers in planning their production in line with expected demand as expressed through the production goals of the economy.

Shepherd (1955) examined the seasonability pattern of prices of farm products. The short term variations of prices within the year did not make market structure imperfect if the seasonal rise in prices matched with the storage costs. Price movements over season followed some regular pattern. Prices of the farm product are expected to be higher during the lean period than that of post-harvest period, because the allocation of produce over time involved costs. Such a situation resulted into rush of market arrivals during the post-harvest period, which in turn depressed prices. It was pointed out that if the seasonal price rise corresponded with the storage costs, the market structure could logically be termed as perfectly competitive.

Bain (1959) examined the market structure, conduct and performances of American industries with a view to establishing interrelationships among these variables. Emphasis was laid on the formulation of market structure variables. The relationships of these variables was also established. According to the author, the term Market Structure refers to "those characteristics of the organisation of a market which seems to influence strategically the nature of competition and pricing within the market". The characteristics of a market organisation emphasised were (i) the degree of seller concentration (ii) size of the distributing firms (iii) degree of buyer concentration (iv) degree of product
differentiation, and (v) the condition of entry in the market. Market conduct was defined to stand for the patterns of behaviour which the firms followed in adapting or adjusting to the markets in which they buy or sell. The term market performance referred to the economic results that flowed from the industry as each firm pursued its particular line of conduct.

Hoffman (1959) examined the implications of changing competition in the food trade. It was observed that the large firms would perform the function differently than the small ones. It was felt that it would be wrong to examine the market structure in terms of just the number of firms in the market. More important than the number was the attitude of competition of firms towards each other. The expenditure on the research activities related to the business would be an other important factor which would greatly influence conduct and performance of the business firms. The study brought out that much of the growth of the leading food firms in the U.S.A. came through internal expansion rather than by acquisition.

In a thought provoking discussion on market structure Clodius and Mueller (1961) clarified the concepts of market structure, conduct and performance in a wider perspective and recommended the use of Bain's concepts in empirical studies. The authors urged the potential research workers to conduct field investigation on: (1) the relationship between market structure, conduct, performance and technological change, (2) the impact of market structure on aggregate farm income, (3) the impact of cooperative institutions on market structure, (4) the impact of uniform grades on market structure, conduct and performance, and
Sosmick (1961) gave a theoretical framework for analysing market structure, conduct and performance. Major emphasis in this study was on the elaboration of the term market performance. According to the author, this term stands for the outcome of an action in the market. Market performance would be reflected in the quantity a buyer would buy from seller, market price, transfer cost and profit of the firms operating in the market.

Williams (1966) reported that the study of market structure had a key role to play in the transformation of the traditional agriculture. It was mentioned that the ultimate goal of the study of market structure was the development of criteria for use in policy formulation in the fields of business competition, market regulation and market power.

Wharton (1962) examined the factors which contributed to the monopsony situation in case of rubber in Malaya. It was found that such a market structure would arise when the dealer, who operated in the rural areas, combined the triple functions of a marketer, merchandiser and money lender. However, such cases were rare in Malaya. The author felt that combination of the triple functions was the only economical way of conducting business in the rural areas.

B. Empirical Studies

(1) Studies on Market Supply Response

Dharam Narain (1961) examined the distribution of marketed surplus of agricultural produce by size-level of holding in India. The study brought out that nearly 47 percent of the
marketed surplus came from farmers having operational holdings of less than 10 acres. The relative contribution of the farmers of the categories of less than 5 acres and 5 - 10 acres was worked out at 26.0 and 20.5 percent respectively of the total marketed surplus. The study reported that the farmer retained foodgrains for the following purposes: (a) consumption of the family, (b) the consumption of the livestock maintained by it (c) its seed requirements (d) payments in kind to artisans and other miscellaneous payments (e) payments of wages in kind to agricultural labour, and (f) payments of rent in kind. It was observed that all these items of retentions were essential and, as such, their demand jointly as well as individually could not be elastic. It would certainly be lower than the demand for non-food products. Once the demand for these items was met the marketed surplus would increase more than the increase in production.

Mellor (1963) reported that in the early stages of development of farm sector a high proportion of food production would be retained for family consumption. This sometimes gives the indication that price relationships have no relevance in such areas. But the fact is that practically all farmers in low income countries produced at least a part of their produce for the market, and in turn drew a portion of their consumption and production goods from the market. Such activity connected farmers with the market and thereby provided potentials for a price effect on the volume of production.

Krishnan (1965) found that foodgrain prices were poorly correlated with the level of production. It was suggested that for studying the behaviour of foodgrain prices, one should consider
not the total level of production but only that portion which was brought in the market for sale. It was observed that an increase in production resulted into much more increase in the marketed surplus. Seasonal pattern of market arrivals was examined in relation to the past prices and the expected prices. The study reported that the farmers sold most of their foodgrain surplus during the post-harvest period which indicated that the extent of distress sales of foodgrains did not diminish amongst the farmers during 1960-61 to 1963-64.

Krishna K. (1967) examined the historical development of price policy, the farm supply responses, the factors governing market supplies and the role of the government in the foodgrains marketing system especially in the developing countries like India. The study brought out that: (a) during the last few years a number of developing countries changed from a negative to a positive price policy with a view to increasing farm production, (b) whenever some development of transport and monetization took place, the output of individual crops as well as aggregate output responded positively, (c) elasticity of market supply with respect to output exceeded unity, which in turn affected market structure, (d) a positive price guarantee should be restricted to only those commodities which were persistently in short supply, (e) measures taken by the government to protect consumer should not damage cultivator's incentives, (f) in general, a policy comprising public stock and distribution operations for the benefit of low income consumers was preferable to other inhibitory controls, which restricted competition in the market and (g) government should
supplement private marketing with its own marketing operations only in those situations where competition was deficient.

Haessel (1975) tested a model (using Indian data) concerning the decisions of the farmers to allocate production of foodgrains between consumption and marketing. The model specified the consumption decision as a function of the prices of foodgrains and income, and the marketing was treated as a residual. The estimated income elasticities of consumption were less than one in respect of different farm size situations. The elasticity of marketed quantity with respect to output was greater than unity. The implication of this elasticity coefficient on market structure was examined. It was pointed out that when output increased, the farmers retained a smaller percentage of foodgrains for family consumption and other fixed needs and made a larger percentage of foodgrains available for sales in the market.

2. Impact of Private Trade on the Foodgrain Markets

The studies in this section show that the private foodgrain marketing system worked efficiently, allocated production over space and time and the system was competitive in operations.

Lerner (1949) reported that it was wrong to consider the private trader as an unproductive element of the marketing system. Such charges were usually the result of the confused thinking of the critics. It was the private trader who facilitated a socially desirable movement of the commodities from where they were needed less to where they were needed more. Two types of speculation were examined by the author. The movement of commodities over space and time was called "Competitive Speculation". Such a speculation was essential for the smooth functioning of the marketing system. The second type of speculation known as
"monopolistic speculation" consisted in creating scarcities and rice in prices so as to increase speculator's profit. Such a power required an extensive control over the resources, which were much beyond the control of the most firms operating in the markets. The competitive trader possessed no such power and as such was a useful element in the marketing chain.

Yengoyan (1966) examined the marketing behaviour of cultivators of philiphines in respect of abaca. The relationship between the trader and cultivator was studied. It was found that the most cultivators obtained credit from the dealers, as such they were under moral pressure to sell their produce through them. The trader also extended credit to the cultivator so that he could increase farm production to be sold through him. Loans were also extended free of interest. In some cases the dealer also provided transport facilities to the farmers to bring their produce in the market for sale.

Abbott (1967) in his survey article examined the different aspects of the marketing system of the less developed countries. It was observed that the development of the marketing system was an essential pre-requisite for agricultural development. The author agreed with D.G. Johnson's forward price model, according to which the economic function of the prices was to achieve a desired allocation of resources. The problem as to why the farmers sold their produce soon after the post-harvest period, when the prices were low, was also examined. The difficulty in obtaining credit was reported to be the major cause of quick disposal of foodgrains. The nature of competition in the foodgrain markets was also examined. It was suggested that if there was evidence of exploitation of the farmers by the traders, measures should be taken
to strengthen farmers' bargaining power and competitive pricing, such problems could be tackled through public provision of market information and advice, credit institution and local warehousing facilities or by reducing barriers to entry and fostering the growth of alternative marketing channels, such as, cooperatives. It was concluded that the private trade should be replaced by the government agency in the market only if the relative superiority of the latter was empirically established.

Kahlon (1967) examined the foodgrain market structure in the Punjab and reported that (1) most of the foodgrain marketing business was done in the regulated markets which were competitive in nature and free from malpractices. (2) Seasonal price variations were due to the poor storage facilities and inadequate market information. (3) The net share of the producer was found to be 92.23 percent and 92.17 percent of consumer's price of wheat, sold through the private trade and cooperative society respectively. (4) Scientific storage facilities did not exist at the village level, storage costs in warehouse worked out to be Rs. 7.28 percent per quintal for wheat and Rs. 6.27 per quintal for gram over the marketing season. (5) It would not always pay the private trade to store the foodgrains. In some years the private trade even suffered losses from storage. (6) The private trade handled 97.27 percent of total arrivals of foodgrains and a very small volume was handled by the cooperatives. (7) About 23 percent of the sample firms had secured vertical integration.

Cummings (1967) examined the Indian wholesale wheat trade to evaluate the role of prices and private trade in the functioning of Indian wheat market. Time series data pertaining
to wheat prices, arrivals, stocks, etc; in the Khanna market were analysed. The study concluded that although private wheat marketing system suffered from certain imperfections, yet it was efficient and did not need overall replacement by the government. Large number of producers, consumers and the marketing firms responded to economic incentives. Price prevailing in the markets provided signals and allocated wheat over space and time. It was pointed out that government through its well designed policy could remove the weaknesses in the foodgrains market structure. But such measures should aim at supplementing rather than supplanting the private trade from the market.

Lele (1968) examined the performance of private marketing system in respect of wheat, rice and Jawar in selected markets of India. The performance of the traditional trading sector was studied with respect to: (1) the degree of efficiency of the existing market structure; and (ii) causes of the inefficiency if any. She found that the foodgrain markets (at wholesale level) were highly competitive. Storage of foodgrains by the private traders was not always profitable. In fact losses and gains were evenly balanced. Furthermore, the higher price differentials (as in case of paddy-rice in West Bengal) were not due to the differences in milling equipment, but rather due to the governmental policies, which resulted into higher incidental costs. The observed marketing inefficiency was thus attributed mainly to the effect of governmental controls, and not due to any inherent weaknesses of the marketing system as such.

Spinks (1970) examined the prevailing attitudes towards agricultural marketing in Asia and the Far-East. He observed
that the role of marketing in the transformation of farm sector in this region was not appreciated. The marketing actions taken by the government were based on adequate data and on the wrong assumption that the ills could be cured by governmental intervention. It was also observed that in some countries like India the attitude towards the private trade was based on the attitude towards the commerce itself. In countries like Thailand, Malaysia, Indonesia and Philippines, it showed reaction against foreigners. The study reported that the competition amongst the traders was based both on the prices and the services rendered towards the farmers in the form of provision of credit, inputs, boarding and lodging and market information. It was thus concluded that the criticism of the private trade in these countries, in most cases was unfounded and was based on ideological consideration and not supported by field investigations.

Mellor (1970a) found that the most developing countries possessed extensive and well adapted marketing system. The popular view that the existing marketing systems particularly in Asia are exploitive, collusive, economically inefficient and operating at high profit margins was rejected. About profit of the trade it was said that those earning very high profit margins through superior ability were balanced by those who made very small margins or even incurred losses. The existing market structure was described to be competitive, there were a substantial number of participants in each market and above all various markets appeared to be well integrated with each other. This indicated that the supply flowed freely from low price markets to high price
markets, thereby equalising the prices. If prices moved out of such a band, it was due to deficiency in the transport system and government policy. This was the reason that during peak season when transport system was used to its full capacity, the price differential in two markets exceeded costs of transport. This alone explained a good reason for building up storage facilities in the producing regions. About the seasonal price rises, it was reported that on the average the seasonal rise in prices was commensurate with storage costs. In general, those who stored suffered losses to the extent of 4 to 8 percent.

The study, however, pointed out that the rate of technological change in private marketing system was low. This was attributed to the small size of the firms, lack of well defined policy and the restrictive nature of the government regulations. It was suggested that government by providing market infrastructures of the types of transport, storage, credit, market information and market technology could help the existing market structure work better. This is where the government role in the private marketing system was required. A well-chosen government policy towards marketing system would facilitate increased competition, increased efficiency of operation, and more rapid technological change.

3. Private Trade and Market Imperfections

It is generally alleged that the private trade through its speculative activities created imperfections in the market and exploited the producer-farmers on the one hand and consumer on the other. On this account a plea for state intervention was
usually made. It was in the early 1940’s that arising out of imbalances between population growth and food supply that the need for State intervention in foodgrains market in India was felt. Consequently Foodgrain Policy Committee was set up (1943) to examine the food situation in the country. The food problem was analysed in terms of demand and supply situation. On the supply side it referred to the retention of more surplus foodgrains by the farmers for self consumption, decline in absolute carry-over of rice by the government and stocking behaviour of the private traders. The committee suggested the remedies which included:— increase in production and supply, improvements in the handling of foodgrains at the farm and market level, intensification of procurement by the government, more equitable distribution and control on prices and overhauling of administrative machinery dealing with the public distribution off the foodgrains.

An other Price-Sub Committee appointed by the Government of India (1944) brought out that no effort to control prices would succeed, unless it was based on production increase. For more production, the producer’s response to price was recognized and in this context the idea of minimum price support was put forward. It was also recognized that prices should be fixed with a view to striking a balance between the interest of consumer and producer.

The Government of India appointed Foodgrains Enquiry Committee (1957) to examine the foodgrain policy for India. Recognizing that India would continue to face food problem in some years to come, the case for liberal imports of foodgrains was made. The committee also examined the rationale of two possible
alternatives of food policy—full control and complete decontrol of foodgrains distribution. Both these alternatives, however, were rejected. It was concluded that the solutions to the food problem would lie between complete free trade and full control.

The FAO/ECAFE (1953a) presented a report on price support programmes in Asia and the Far-East. It was observed that the policy programmes concerning agricultural price stabilisations and income, of the type of U.S.A., had little relevance for this area. In view of conditions prevailing in the region, the objective of price support and stabilisation measures for farm prices and income could not be the transfer of resources from non-farm sector to farm sector. It was suggested that the government policy should aim at expansion of production and control of demand in the initial stages of economic development of the less developed countries.

Mukerjee and Kanungo (1959) examined the different aspects of food administration in the Punjab and U.P. The impact of price control, procurement and distribution of foodgrains on market structure, conduct and performance was studied with a view to deriving lessons for future policy. The raison-de-etre of various policy measures from the point of view of their impact on economy and especially on agricultural sector were analysed. The study brought out that the sale of the produce by the farmers continued to be guided by their fixed cash needs consideration. The impact of government procurement policy was only marginal. The activities of the private traders in the market were amongst the dominant causes of food shortage.

Madan (1959) examined the essentials of food policy.
for India. The impact of buffer stocks operations on prices and market structure was discussed. It was reported that the prices of foodgrains would be affected according to the stocks held by the government. Procurement could be intensified only in periods of falling prices and bumper crop whatever be the nature of foodgrain problem, whether it was an unusual pace of growth in demand or unusual decline in supply. In each case government intervention was necessary.

Government of India (1959) reported the results of an enquiry into the pace and pattern of market arrivals of foodgrains for the season 1958-59. It was found that even in a good crop year, such as 1958-59, the foodgrain prices were high. The reasons of low marketed surplus were ascertained. It was reported that it was primarily the behaviour of producers, traders and consumers which resulted into shrinkage of marketed surplus and higher prices. The big and medium farmers withheld wheat as a result of which post-harvest market arrivals of wheat declined in the Punjab. The substantial farmers possessed the hoarding power and were also price conscious. Their experience of last year's high prices as well as the relatively lower prices which prevailed in the current season induced the growers to withhold stocks from the market in expectation of higher prices in the lean period. The other factors which contributed towards the diminished sales by the producers were: larger output of other crops, higher prices, and better access to cash resources.

Poduval (1959) studied regulation of markets, grading and standardisation, cooperative marketing, provision of warehousing facilities, market intelligence, market news, regulation of forward
markets and state trading in foodgrains on the foodgrains market structure. It was observed that these measures favourably affected the market structure through its impact on both the farmers as well as the consumer. The measures also resulted into increased share of producer in consumer's rupee.

Humphrey (1968) reported that State trading in foodgrains aimed at supporting farm prices during bumper production periods, holding down retail prices during scarcity situations. Government intervention in the market through its purchase and sale operations reduced regional and seasonal price variations. It was said that since the government purchased more foodgrains than the private trade, therefore, the zonal restrictions did not depress prices of foodgrains in the surplus states. The private trade, it was alleged, created imperfections and thereby exploited the producer-seller on the one hand and consumer on the other.


The Prices Sub Committee (1943) appointed by the Government of India examined the rationale of the price policy of foodgrains followed in India. It was recognized that a rational price policy would be the one which strikes a balance between the interests of the consumers and producers. It was observed that in India the interests of the farmers remained neglected at the hands of the policy makers. The price policy concentrated mainly on checking price rises. It was concluded that such policy moves adversely affected agricultural production and especially foodgrains production in India.
Herman (1966) studied some of the aspects relating to marketing and price policy in respect of rice in India. The objective of this study was to suggest economic incentives that would be appropriate under Indian conditions. The study stressed the view that price incentives were indispensable for achieving increased production. However, keeping in view the opposition of consumer to the enhancement of prices, one alternative would be to stabilise agricultural prices by reducing annual, seasonal and spatial price variations. This could be done well, perhaps by resorting to open market purchase and sale operations by the government. The author also expressed the view that government's purchase price should not prove to be a disincentive to the producer-framers.

The variations in prices of rice over space and time were studied. According to the author the largest single factor in case of rice prices was the system of rice zone. About 15 percent of the total variation in prices of rice in the different markets was attributed to zones. It was reported that where zones did not intervene, foodgrains (rice) markets tended to follow similar price patterns.

Krishna R. (1967a) examined the foodgrain marketing operations of the government of India related mostly to the period 1951-66. It was pointed out that these operations which included procurement, imports, buffer stocks and public distribution aimed at securing steady growth in the per capita supply of foodgrains in India, distribution of foodgrains through fair price shops, socialisation of foodgrains surplus and attaining self-sufficiency etc. It was observed that these operations had
been erratic and unprincipled. The operations were the outcome of a clumsy administrative-cum-political handling of one exigency after another. There was a wide difference between goals and actual performance. It was pointed out that if the objectives of the operations were defined clearly and consistently and were based on quantitative data, performance of the operations would have been better. The author firmly believed that unless there was dramatic increase in production, the government operations could not achieve the objectives set for them.

Lele (1967) examined the problem of market integration of Sorghum in Western India in terms of inter-market price relationship. The hypothesis that there existed a large regional price difference, which caused speculative activities in trade, was tested. The study brought out that the inter-market price variations could be attributed to the differences in varieties of foodgrain traded in the different markets. Price differentials exceeding the costs of movements of foodgrains were explained in terms of transport bottlenecks which did not allow the producer-farmers to reach distant markets. The government policy of foodgrains also aggravated the price differentials between regions and distorted price relationships over space.

Khuaro (1968) examined the theoretical basis of the price policy followed by the government of India. It was reported that in most cases the policy failed to perform the functions expected of it. The poor performance of Indian agriculture was attributed to the neglect of economic principles in the formulation of foodgrain marketing policies. Examining the theory of price control, it was found that one of the three things, or a combination
of them could happen: (a) farmers in the primary markets and traders in the secondary markets would attempt to bypass controls and sell in the black market; (b) farmers might increase self consumption of foodgrains; (c) if the farmers submitted to price control, their production incentives would be adversely affected. It was suggested that for these controls to be effective, these on the demand side, should be combined with rationing and on the supply side with incentives for more production. Higher prices to farmers would mean more production, less retentions and more marketed surplus. A right combination of food policy comprising the following was suggested: (a) announcement of support prices by the government in advance; (b) support price should not be allowed to become ceiling price; (c) procurement at market prices; (d) subsidising foodgrains for consumers; (e) government should not only buy aggressively but also conserve its stocks judiciously, that is, at a lower operational costs; (f) special subsidies should be given to those farmers who agreed to deliver a given proportion of their produce to the government, and (g) eliminate the zonal restrictions on the free movements of foodgrains in the country.

Natarajan (1968) examined the working of the paddy levy procurement scheme introduced by the Andhra Pradesh in India in 1965-66. It was suggested that there was a need for preparing the ground in advance for ensuring the success of levy/procurement scheme. Adequate finances should be placed at the disposal of agencies in the market before the start of the levy procurement operations. Such a move would eliminate delay in the payment of sale-proceeds to the farmers. It was suggested that frequent changes in the government policy should be avoided
as it created uncertainty in the mind of the producers and traders and, as such, adversely affected the market structure.

Mathur (1963) examined the factors which affected fluctuations in the prices of foodgrains in India. The study brought out that due to the inter-state restrictions on the movements of essential commodities, prices in surplus areas were different from those found in the deficit areas. Control measures introduced by the government hampered production, encouraged speculation and ultimately resulted into higher prices. However, the government policy operations on storage, internal procurement and imports could narrow down the seasonal rise in prices.

Cumming (1970) made out case for an all India market (free from zonal restrictions) which would encourage agricultural production and allocations to geographical areas, on the basis of comparative advantage, observed that the cost of the implementing zonal restrictions on the free movement of foodgrains was very high. Besides, the zonal restrictions created uncertainty in the market which adversely affected both the producer and the consumer.

Bhatia (1974a) suggested that the soundness of the government marketing policy in foodgrains could be examined in term of its impact on quantum of foodgrain procured and the effectiveness with which it helped the market forces to equate demand and supply without causing distress to the vulnerable section of the population. In this context, it was observed that the private trade in foodgrains could easily do this job. It was noted that decision to eliminate the private trade from the foodgrain market was based on political ideology and not on economic considerations.
The fact that his (private trade) cost of handling, transport and storage of wheat was Rs. 4.75 a quintal against over Rs. 28 a quintal by the government (food corporation of India) was overlooked. The government worked under the wrong assumption that the marketed surplus was only the function of the size of the crop, and that the prices offered to the farmers had nothing to do with it. The author found that the experience was against such a belief; so was logic. But the government policy of take-over of foodgrains was based on none.

Ram and Bhatia (1974) reported that considering the serious economic disorder due to the inefficient market structure of foodgrains, the government decided to take-over foodgrain trade from the rabi season 1973-74. According to the authors this experiment was a failure. Government was not in a position to reach half of the procurement target. The scheme suffered from several discrepancies. The procurement price of wheat was fixed at a low level and even lower than the cost of production of wheat. A skewed distribution of marketed surplus in favour of big farmers, who possessed more retentive power, was another factor which stood in the way of government procuring sufficient quantity of wheat. The exaggerated estimates of marketable surplus, non-coverage of other coarse grains, slackness on the part of state governments and the misleading of farmers by the traders were amongst the other factors which contributed towards tardy procurement operation. It was suggested that a remunerative price based on cost of cultivation would go a long way to encourage production, marketed surplus and procurement.

Sahota (1975) observed that since the early seventies
(the period that coincides with the tapering off the green revolution) farmers in India were faced not with floor but with ceiling prices. This had been the case with all major crops, such as wheat, rice, cotton and sugarcane. Even when the grain procurement system broke down at the time of spring 1974 wheat harvest, the ceiling price of wheat in the agricultural surplus states like Punjab and Haryana was raised only grudgingly. The private trader was required to deliver half of the wheat purchased by him to the government at a much lower price. Such a practice resulted into higher black market price. As a result the big farmers held larger stocks and market arrivals declined during the post-harvest period. The authors concluded that the government price policy had resulted in a ceiling and not a floor price. This policy seems to have gone counter to the precepts of agricultural economic theory and, as such, adversely affected market structure.