

THE NEED FOR TRANSFORMING AGRICULTURE PRODUCE MARKETS: EVIDENCE FROM PUNJAB, PAKISTAN

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The evolution of high-yielding varieties of seeds, increasing use of fertilizers, pesticides, installation of tube-wells and mechanization has increased the agricultural productivity (AP). An efficient agricultural marketing (AM) system increases the growth of agri-business and improves the economic growth. More recently, research has shown that agriculture growth cannot be realized without well- functioning agricultural produce markets (APMs). In Pakistan, however, development of APMs largely remained neglected because of overriding emphasis of public policies on enhancing AP. Consequently, APMs could not be developed adequately and imperfections in the legal structure, management and operations of these markets have limited their performance. A survey was conducted in nine districts of the Punjab province having interviews with staff of market committees (MCs-90), commission-agents (CAs-90), whole-sellers (WS-90) and retailers (RT-90). The results reflect that there is an urgent need for amending legal and institutional mechanism for making APMs efficient. The study will help academia and policy makers to improve efficiency of APMs in the province.

Keywords: Agriculture marketing, economic growth, agricultural development, agriculture produce markets, institutional capacity, legal framework.

INTRODUCTION

The role of Agriculture Marketing (AM) as stimulus of production, consumption and accelerator of economic growth is very important. Due to which it is defined as an important multiplier of agricultural development. The campaign of 'grow more food' since Green Revolution period has raised the productivity as well as production created problems for AM. The Commercialization of agriculture has shifted the cropping pattern which has increased domestic and international trade. The increased market distortions like subsidized inputs etc. have led to increased marketed surplus. The growing surpluses along with demand of commercial inputs have pressurized the existing system of AM and have exposed its deficiencies like forced sale, superfluous middlemen, multiplicity of market charges, malpractices in markets and lack of standard grading and packing. The supply of crucial inputs and sale of AP products have become a serious constraint. The government support and market interventions like improving legislative framework, monitoring output prices and improving markets infrastructure for efficiency have made marketing a matter of importance. By realizing the importance of marketing, governments of developing countries are stimulating the marketing institutions through interventions (Van and Ingenbleek, 2010). In Pakistan marketing institutions have been established in the past to keep pace with increasing needs of agricultural sector. Although a framework of regulated

markets exists in each province, it is lack of basic infrastructure facilities in terms of metalled roads, auction platforms, cart/tractor /truck parks, sewerage system, sheds, boundary walls, rest houses, water facilities, well-trained and dedicated supervisors and marketing managers/ officers (Thakur, 2006).

Akiyama *et al.* (2001) enlisted different conditions for reform which affect the design and implementation of commodity market reforms. These conditions include effect of international and regional markets, the macroeconomic environment, factor markets, current government policies and the state of the private sector. These pre-conditions are important for the implementation process. The government's trade and macro policies show their commitment to improve AM system. APM plays the role in linking the producer and consumer. Both public and private sector drives the functions of these markets. According to a report of Planning Commission of Pakistan (2009) most of the fruit & vegetable markets are the ownership of private stakeholders in the smaller towns particularly in the Khyber-Pakhtunkhwa (KPK) Province. Commission agents (CA) charge a fix commission rate from growers for the services they provide, while AM Department controls the fruits and vegetables markets in Punjab through its district level market committees (Aftab, 2007). Each market requires feeder roads for efficient, sufficient and economical transport and godown facilities to reduce marketing costs and uncertainties and to ensure quick movement of inputs and output of farmers (Faustine,

2009). Whereas in most parts of the country the regulated markets create only facilities in term of market platforms and other infrastructure facilities, which are mainly used by the traders and not by producers and sellers (Gangwar, 2010).

Market Committees, by and large, have deviated from their professed aim of protecting the interests of farmers due to politically appointed administrators and nexus between officials and traders (Ahsan, 2018). The traders exploit the farmers by using their monopoly, pay them low prices, collect profits from farmers by not giving them fair prices, underweighting their produce and by adopting other illegal marketing methods termed as malpractices in marketing (Thakur, 2006).

On one hand infrastructure and business environment within the agriculture produce (wholesale) markets are not allowing fair competition and on other hand inadequate infrastructure and legal provisions do not allow the sale/purchase of agriculture produce outside the agriculture produce market. Due to small farmers in majority having subsistence production, marketing is underdeveloped (MoFED, 2010). Above mentioned reasons are the challenging circumstances, which make an examination of marketing interventions worthwhile.

In Pakistan, however, development of APMs largely remained neglected in the past because of overriding emphasis of public policies (input and output price policies, subsidies, import and export policies) on AP enhancement. Consequently, APM could not be developed adequately and imperfections in the structure, management and operations of these markets have posted limits on their performance. With increasing production and rising consumer demand for high quality products, most of these markets do not cope with the emerging requirements and have come under increasing strain. Resultantly, the welfare of both consumers and producers is often not optimized.

More recently, there is realization that agriculture growth cannot be realized without well-functioning APMs. Hence, greater emphasis is being laid on finding out ways for bringing about improvements in APM, so that welfare of stakeholders is optimized.

According to Meerman (1997) reforms in agriculture are designed to reduce the distortions and promote market forces. In the present structure due to the dominance of the intermediaries, the open auction system is not found in the agricultural produce (wholesale) market yard. The reforms of marketing boards and other market related institutions are intended to promote normal price to which players can respond and make efficient resource allocation decisions, which, in turn, lead to more rapid growth and greater welfare (McCulloch, 2000). Akiyama *et al.* (2003) found that legal and structural reforms in commodity markets give better returns for the growers and they have greater share in consumer price. In deficit regime it was easy to sell whatever was produced but in surplus regime market imperfections

have surfaced in the form of market crashes due to greater supply and low demand. Farmers get low returns for production enhancements as they could not recover even their cost of production in case of market crash. On another hand the produce of growers is not properly handled in the APM with prevalence of the malpractices. The farmers are selling their produce at a price quoted by the traders/commission agents (Haq, *et al.*, 2013). The existing infrastructure and institutional framework of AM has failed to disseminate the produce of growers at competitive price and to synchronise the system to cater the needs of modern era (Chengappa, 2003). Amendments in existing legal framework are required for efficient working of AMS, which include elimination of notified area (NA) of MCs, reducing monopoly of the commission agents by legalizing the role of retailers in the wholesale produce markets and promoting standardized grading and packing of agriculture produce. Institutional reforms are required to redefine the role of market committees and have more focus on provision of storage and warehouse facilities (Ahsan, 2018).

In Pakistan, very few studies are found containing the research on institutional and structural framework of AM system (Ahsan, 2018). This recent study, on APM's of Punjab, recommends to eliminate NA, charge fee at value of agriculture produce instead of volume and legalize the role of retailers (Ahsan, 2018). The elimination of NA requires more research as all the industries will be out the ambit of the only institution (MC) safeguarding grower's interest. The survival of market committee will also be in question which collect 60% revenue from NA. On another hand the implementation of fee at value of agriculture produce and its acceptability by stakeholders have a question mark. More depth research is required for legalizing the role of retailers. Moreover, evaluation of existing institutional capacity is quite necessary for reforming agriculture marketing system. This study intends to contribute to this end with the objectives to seek an overview of institutional and legal arrangements governing agricultural produce markets in the Punjab province, investigate the feedback of stakeholders about the functioning of APMs, and suggest policy measures needed for improvement in the functioning of APMs in the province.

MATERIALS AND METHODS

While conducting an analytical research, it is important to adopt a systematic and suitable technique/methodology fulfilling the specific objectives of study (Bryman and Bell, 2015). The selection of specific procedure for sample drawing, collecting and analyzing data also impact the validation of the research which helps in presentation and dissemination of findings of study.

This study of APMs is based on both secondary and primary data. Secondary data relating to existing AM infrastructure, institutional and legal arrangements governing APMs in the

Punjab province was gathered from various publications such as Punjab Development Statistics, Agriculture Marketing Information Systems (AMIS) and Directorate of Agriculture Economics and Marketing (DAE & M). For primary data, a survey of 09 APMs located at divisional headquarters (Rawalpindi, Sargodha, Lahore, Gujranwala, Faisalabad, Multan, Sahiwal, Bahawalpur, and D.G. Khan) was conducted. The markets were selected on the basis of volume of business traded in these markets and being the major hub of trade of agricultural produce in the province. Using Morgan's table a sample of 360 stakeholders was collected, which comprised of staff of MCs, commission agents (CA), wholesaler (WS) and retailers (RT) working in 9 APMs (Creswell, 2013). The sample distribution is given below:

Staff of MC	Commission Agents (CA)	Wholesalers (WS)	Retailers (RT)	Total
90	90	90	90	360

A multistage sampling technique of simple random sampling followed by convenience sampling was used to obtain response from stakeholders. A total of 295 filled questionnaires out of 360 were returned from respondents. Institutional help was acquired to obtain their responses. Nine responses were excluded due to more than 50% missing values and 286 valid responses were included for analysis. The study intended to conduct in-depth interviews of selected key informants, commission agents and management of APMs to identify the problems they faced and to evaluate their capacity to manage these markets. While descriptive statistical analysis was employed for the analysis of primary data.

A comprehensive questionnaire was developed for this survey so that the real picture regarding the objectives of study may be analyzed. The questionnaire was pilot tested for its reliability and validity from experts and then modified in view of their opinion. It was comprised of different sections according to the objectives of the study including performance of existing system of AM, role of MCs, role of government in markets, role of stakeholders in market management, feedback on standard grading and packing facilities, functioning of retailers and response regarding the present reforms etc.

Legal and institutional framework: Through 18th amendment in constitution of Pakistan agriculture is given under custody of provincial governments for implementation of legal and institutional framework. The central and the govt. at provincial level make policies for improvement of AM system for federation and province.

The legislative structure for AM in Punjab has evolved over time which have deep roots in Agriculture Produce Markets Act, 1939 promulgated on the report of Royal commission on Agriculture, comprised by the Indian British Government during 1927. The purpose of this act was to regulate agriculture markets and agri. business to curb the

evils prevailing in AM system. MCs were constituted under this act to safeguard the motives of farmer's community against market mafia. This act was replaced with Punjab Local Government Act, 1975 after independence which cannot be enforced due to political instability.

Later on Punjab Agriculture Produce Markets Ordinance 1978 replace the relevant provisions of the Punjab Local Government Act, 1975 with sub-ordinate regulations of 1979 for working of agri. produce markets. All AM activities (especially the working of wholesale agriculture produce markets) are lawfully monitored under this law.

The basic aims of AM legislation are as under:

1. To safeguard of farmers from unfair trade practices (malpractices) in the AMs.
2. To facilitate the farmers to get fair return of his produce.
3. Establishment of new APMs and regulating the existing markets.
4. Establishment of standard grading, packing and marking system of agricultural produce.

The first three objectives are to be achieved through implementation of PAPMO 1978 and its rules of 1979, while last objective was to be achieved through Grading and marking act 1937.

Department of Agriculture Marketing: The Department was established in January 2004. The following institutions are working under this department.

i) The Directorate of Agriculture (E & M) Punjab: To look after AM system this directorate was established in 1967 with following objectives;

1. Establishment of new wholesale agriculture produce markets
2. Supervision of Market Committees and their Constitution
3. Monitoring the working of Market Committees
4. Collection and dissemination of Market Information
5. Training of staff of Market Committees and Market Operatives
6. Specification of different fees

Since the establishment of DAE & M, only 64 public and 29 private markets have been established this includes 7 feeder markets and shifting of 31 APMs. In 1970s feeder markets were established as collection spots to feed the larger markets but these markets remained non-functional due to absence of facilities and interest. There was no provision of establishment of private markets in the act of 1939 and Ordinance of 1978 and an amendment was introduced in year 2011 for this purpose. Till 2017, only 29 private markets were established and most of them are non-functional. The no. of markets established by the directorate since its creation is not satisfactory as the volume of AP has increased manifolds. It shows that the existing APMs established before 1963 have large capacity to accommodate the volume of AP which is being utilized now. Secondly DAE & M has mandate of constituting/monitoring of MCs.

According to the ordinance, a MC will remain in class C for 3 years and will be reconstituted after completion of tenure according to composition as defined by the ordinance. In fact, 2002-2005 was the only period when these market committees were properly constituted with elected representatives. Other than this period, mostly it was opted to exercise the emergency powers for the appointment of political administrators. The administrators exercised all the powers of MCs without being answerable to anyone except appointing authority (GOP). The post of administrator is charming and the holders must have influence in local politics otherwise his stability on the post will be volatile. The data of appointment of administrators showed that many of them had been employed since 9 years on the basis of political affiliations.

ii) Market Committees (MCs): MC means a body constituted under Section 7 of PAPMO, 1978, and monitoring the transactions of AP in its NF defined in section 4 of the Ordinance. Under Section 8, the MCs comprised of 10 to 17 members as per sanctioned strength notified by GOP. There are 135 (one hundred and thirty five) MCs working in the Punjab province. They are classified on the bases of their income level as per following details:

Table 1. Distribution of MCs in Punjab.

Income Level of MCs (Rs.)	Category	Numbers
More than 16 lac	A	42
8 lac to 16 lac	B	41
Less than 8 lack	C	52
Total		135

Source: Agriculture Marketing Information Service.

All nascent established market committees remain in class "C" for an initial period of three years later on government determines their fate on the basis of average income received in last three years as mentioned above table.

One hundred and forty nine grain markets, ninety five fruits and vegetable markets and eighty one feeder markets handle food grains, fruits and vegetables regulated by market committees in Punjab. However, Baluchistan and Khyber Pakhtunkhwa still has unregulated agriculture markets.

Table 2. APMs in Punjab.

Type of Market	Numbers
Grain Markets	105
Fruits and Vegetable Markets	135
Private Markets	81
Total	325

Source: Agriculture Marketing Information Service.

iii) Punjab Institute of Agriculture Marketing (PIAM): It was established in 2006 for capacity building of staff of AM, MCs and the agriculture extension department. It also build capacity of growers, traders, exporters and importers and other markets functionaries. It remained functional till 2012. During its period of about six years it provided training to 2200 staff of agriculture marketing department, 1500 growers and about 5000 market functionaries. Its working was stopped in 2012 due to the administrative issues and court cases of staff.

PIAM's working has been revived in 2017 with limited staff and has started capacity building of staff. In 2017-18, it provided training to 1400 staff members.

Over the time it was felt that the legislative framework of PAMP 1978 Ordinance has become obsolete which have failed to fulfill the above mentioned objectives and have less space for propagation of private sector to develop an incentive based marketing structure to cater the needs of modern era. On one hand this legislation has failed to work as watch dog to safeguard the interests of farmer community on another hand it has faced failure to promote the standard grading and packing of agriculture produce. To remove these draw backs the provincial assembly passed a new act called Punjab Agriculture Marketing Regulatory Authority Act 2018.

Punjab Agriculture Marketing Regulatory Authority (PAMRA) Act 2018: Under this act an authority will comprise of 12 members including 3 Punjab Assembly members, 4 private growers, vice- chancellor of one agriculture university besides 3 government officials.

According to PAMRA act 2018 the authority shall perform the functions to prescribe grading standards, good agricultural practices, to register the geographical origin of an agriculture produce or particular farming method for an agricultural produce, fees for registration of an agricultural produce market, collection center to promote alternative marketing channels like contract farming. It will also promote and enforce the adoption of a fair system of auction of an agricultural produce in line with the best regional and international practices. Providing training for service providers, market information services, controlling unfair marketing practices and preparing model contract farming templates and undertake surveys of markets will be responsibility of authority.

RESULTS AND DISCUSSION

A comprehensive survey was conducted in 9 major markets of the Punjab to evaluate the functioning of current marketing system in which response of the stake holders about their satisfaction on existing marketing system, facilities provided, role of market institutions, and role of private sector and effectiveness of PIAM training for the staff was recorded.

Response on System of AM

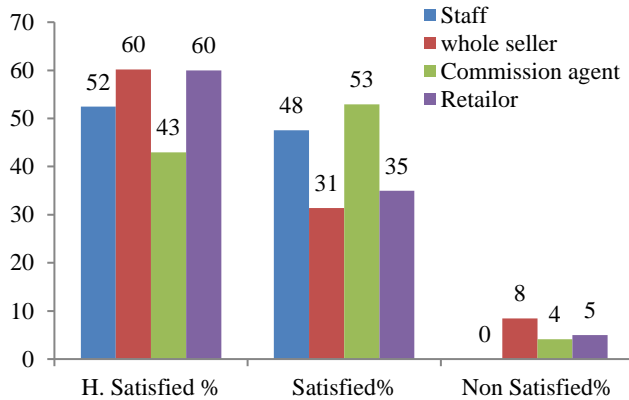


Figure 1. Level of satisfaction on existing system of AM.

Majority of the stakeholders including staff of MCs, WS, CA & RT showed their high satisfaction on existing system of marketing. The stake holders suggested that improvements in legislation are required for efficient working of the existing system.

Table 3. Working of market committees.

Question	H. Satisfied (%)	Satisfied (%)	Not Satisfied (%)
How you see the cleanliness of agriculture produce markets?	26	40	44
Facilities (business centre, storage, road networks etc.	8	43	49
License Renewal Mechanism	20	40	40
Fairness in collection of market fee	50	34	16
What about the performance of market committee?	31	40	29
Do you think current market committee system can run the matters of market in better way?	40	20	40

It is clear from the response of the stakeholders from the above mentioned table the situation of cleanliness and facilities provided by the market committees is vulnerable which is improving with the involvement of higher up and with improvement of resources of market committees. The license renewal mechanism also needs improvement. The 50% respondents were highly satisfied with the fee collection mechanism 34% satisfied and 16 % unsatisfied. 31% of stakeholders showed high satisfaction on performance of market committees. 40% stake holders showed concerns about the constitution of market committees.

Role of Government in Marketing System

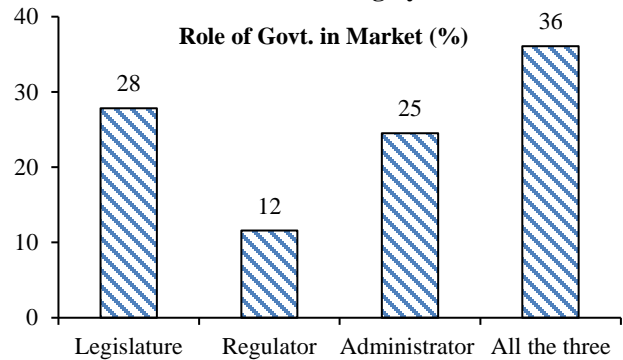


Figure 2. Response on role of Govt. in management of markets.

Table 4. Role of market stakeholders in management.

Sr.	Question	Yes (%)	No (%)
1	Do you think market should be managed by the elected representatives of Market	30	70
2	Do you think market stakeholders can run the affairs of market in efficient way?	25	75

The majority of market stakeholders have the opinion that elected representatives of the market cannot run the management of market due to their vested interest. The role of government is crucial to manage the market as it has legislative and administrative powers.

Table 5. Response on standardized grading and packing.

Sr.	Question	Yes (%)	No (%)
1	Do you think all the commodities in the market should be according to approved grades and standards?	99	1
2	Do you think grading system will be beneficial for your business?	94	6
3	Do you think produce should be graded before it is marketed?	96	4

The response of the stakeholders about the standard grading and packing was amazing. 99% of all stakeholders showed that approved standards commodities should be sold in the market. 94% declared that it will be beneficial for their business and 96% have the opinion that produce should be graded before it is marketed.

Table 6. Response of retailers.

Sr.	Question	Yes (%)	No (%)
1	Do you pay any fee for doing business?	80	20
2	Do you pay fee to commission agent?	60	40
3	Do you think the fee you pay is legally correct?	40	60
4	Do you think your role should be legalized?	98	2

The retailer is the important component of the market who has no legal identity and part and parcel of every market. 80% of the retailers showed that they have to pay fee for doing business in the market 60% pay to the commission agents and remaining 40% pay to market committees and others.

Table 7. Response on elimination of notified area (NA).

Question	Yes (%)	No (%)
Do you think if notified area is eliminated and market can be run effectively through market fee collection?	20	80

Respondents 80% showed concerns about the elimination of NA and 20% had opinion that it may be eliminated. Majority of stakeholders explained that if it is eliminated then any one can auction its produce anywhere which will affect the business of APM and cause irregularity. In a report on working of APMs in Pakistan, it was pointed out that MCs collect market fee from NA without providing any service and it should be eliminated (Ahsan, 2018). The analysis of the income of MCs from the NA is given in Table 8.

It is evident from the data that 51% of income of market committees is coming from notified area which includes 42% from sugar mills, 11% from cotton factories, 10% from food department, 9% from flour mills, 8% from rice mills, 6% from other agro based units, 5% from feed mills, 3% from textile mills, 3% from oil mills, 3% from miscellaneous dealers.

Table 9. Percentage of income received from notified area (NA).

Sr.	%age of Notified Area Collection	Number of Market Committees	No. of Employees	Annual Establishment Expenditures (Rs. Million)
1	100	8	80	28.44
2	90-99	15	175	110.12
3	80-89	19	179	96.00
4	70-79	23	297	169.46
5	60-69	12	184	88.91
6	50-59	18	198	135.81
7	01-49	16	344	202.81
8	30-39	4	51	68.23
9	20-29	12	153	111.84
10	10-19	5	50	31.89
11	00-09	2	40	8.88
Grand Total		134	1751	1052.41

Source: Directorate of Agriculture E&M.

Table 8. Collection of market fee (2017-18).

Sr.	Source of Market Fee	Market Fee (Million)	License Fee (Million)	Other Source (Million)	Total (Million)	%age Share
1	Markets	382	38	484	1900	49
2	Notified Area	653	84	178	919	51
Grand Total		1035	136	666	1819	100

Source: Directorate of Agriculture E&M.

If NA is eliminated and fee collection is limited to only market then the survival of 42MCs (434 employees) will be completely at stake, which receive 80-100% of income from NA while the income of other MCs will also be affected.

Feedback of stakeholders regarding capacity building by PIAM: As per field survey, 80% of staff of MCs have opinion that the institute has improved standard of training, 87% considered it beneficial for their official working. 60% of responses suggested that field training may also be arranged by PIAM. Majority of the staff suggested that at least 15 days annual training may be considered mandatory for every employee of the market committee. The stakeholders suggested that PIAM should conduct mandatory promotional trainings of the staff. The capacity building for the other stakeholders of agriculture like farmers, processors and market functionaries is also required. More capacity building program like market led extension, farm business schools, diplomas of farm business management may be started by PIAM.

Policy Recommendations:

Based on the findings of the study following policy points are suggested to be considered for reforming the AMS of Punjab.

1. The existing legal framework PAPMO, 1978 and General Rules, 1979 may be amended for reforming the existing PSMs in following way.
 - (i) More research is required on the issue of elimination of NA as it is connected with survival of more than 70% of MCs. It is better to initiate a pilot for eliminating NA in 5 MCs initially to analyze its impact before replicating to all 135 APMs.
 - (ii) The implementation of market fee should be at value rather than at volume of agriculture produce to collect more funds for providing facilities and initiating developmental projects. However, measures like use of information technology (Close circuit TV, weigh-bridges linked with electronic receipt system etc.) may be started for ensuring transparency in market fee collection in the APM.
2. The new legal instrument, PAMRA Act 2018, may be considered for the establishment of both public and private sector markets. Sub-ordinate legislation under this act may be got approved. However, there must not be overlapping provisions in both legislative instruments.
3. A lot of reforms in working of MCs are required for provision of facilities (cleanliness, business conducive

environment, storage, roads network etc.) which need budget/resources from GOP.

4. Standard grading and packing should be promoted at national level and projects may be launched for its implementation at farm level.
5. The role of retailer may be legalized and he may be recognized for being the part of the APM.

The capacity building program for other stake holders of AM including growers, processors and market functionaries may be started by PIAM

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