A Study on Existing Contract Farming Models in India and Framework for Hybrid Model

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Abstract
The price fluctuations due to the time lag between the start of the sowing and the harvest of the agricultural produce results in huge distress to farmers. Storing perishable products is not a feasible option to be considered due to the non-availability of proper warehousing facility. Therefore, Contract farming is looked as a means of handling risk on Price fluctuations which enables the farmers and buyers to decide the quantity, quality and price of the agricultural produce even before sowing stage.

This paper is an attempt to highlight the various Models of Contract Farming existing in India along with their prospects and challenges to farmers. Basis the analysis of these models it is very evident that Bargaining power of the corporates are much better when compared to farmers which would put the farmers to test at each stage of execution of the contract farming, which resulted in the need for a new Hybrid model which requires direct intervention from the statutory bodies. This Hybrid model would enable the farmers to have a balanced execution of the contract for both the farmers and corporates.

Key Words: Price Fluctuations, Contract Farming, Support Price, Warehousing and Agricultural produce.

Introduction
India is presently a service-led Economy; around 53% [1][Press Information Bureau, 2nd Sep 2011] of GDP is contributed by Services sector and around 17% [1]is contributed by Agricultural sector, nevertheless more than 50% [1] of the population is employed in Agricultural sector. Therefore, any fluctuations in Agricultural productivity can have a significant impact on the Per Capita Income of the economy. It is very much observed that the history sounds of farmers debt trap and deaths are due to lack of risk management of price fluctuations.

Price discovery for the produce are determined basis the demand and supply factors of the market and the MSP fixed by the government from time to time. The reason behind providing the MSP in the light of national requirements are:

• To provide incentive to the farmers for adopting latest technology.
• To have a rational utilization of production resources; Land, water and other resources.
• To determine the likely effect on the standard of living.
• To monitor the terms of trade between the agricultural and Non-agricultural sector.

In the context of trading on Agricultural derivatives, Futures are looked as speculative instruments, but these instruments can make the production and sale of agricultural produce less of a gamble for present day Indian farmers. The Cost-effective hedging for participants like farmers is the basic idea behind introducing Agricultural derivatives; also, it enhances liquidity in the market. Presence of hedgers in the market results in the reduced volatility, whose position would be contrary to the current investors. Usually, Futures markets are protected from losses and also from extra gains. Under contract farming, Agricultural production would be carried out basis on agreed terms and conditions between the Farmers and Buyers of Farm produce even before the sowing stage. The study about the awareness and required knowledge on contract farming among the Indian farmers is the need for the hour to work for mitigation of risk on Price fluctuations on Agricultural produce.

Research Background

History of Derivative market dates back to 1875[2][Ashutosh Vashishta, 2010] with the futures trading by Bombay Cotton Trade Association. Further Cash settlements and Options trading was banned in India by Government of India in 1952. Then on the derivatives market existed in India in informal market until 1995, where the introduction of Financial derivatives trading was promoted with Securities Laws (Amendment) ordinance, 1995. Trading in Derivatives contract in India Commenced in May 2001 with the final Approval of SEBI in June 2000 on the recommendation of L. C Gupta committee basis which trading in Derivatives were permitted on NSE and BSE. After which India had seen a tremendous growth in the number of contracts traded and its values. As per the latest report published on Jan 21, 2020 by Bloomberg, India, now has the world’s Largest Derivatives Exchange in terms of Volume.

Yield risk and Price risk are the 2 major risks associated with farmers in India. Discovery of Price is offered by agricultural derivatives; where the major contribution towards Risk transfer and Price discovery is enhanced. A number of problems faced by small-farm producers in terms of reducing market risk, credit management and the required technical assistance can be solved with Contract farming. Contract farming acts as a link between the Farmers, processors, exporters, and Super market chains. Most of the studies show that, in developing countries, income of the farmers had comparatively increased from 25% to 75% due to contract farming when compared to that of Non-contract farming farmers [6][Nicholas Minot and Loraine Ronchi, October 2014]. The Price Fixation of the Produce under contract farming can be looked from 3 different perspectives [5][Panotra Narinder, Gupta Vinod, Sharma Vishal, Kumar Ashwani, 2018]:

![Price Fixation Models Diagram](http://www.shanlaxjournals.com)

1. **Pepsi Model:** Under this model, price fixation of the produce happens with complete autonomy between Farmers/Producers and Corporates.
This Model is best suited in scenarios where Farmers have complete knowledge of the market and have good bargaining power. The biggest challenge to the current day farmers is that there would be complete absence of support from outside knowledgeable agencies or associations and also absence of complete knowledge on the market which would lead to their exploitation in the process of profit-making objectives of Business. For this model to be beneficial, either farmers need to enhance the bargaining power or Corporates have to change their attitude towards Agricultural business from profit orientation.

**Tamil Nadu Model**

Prices are decided in agreement with both the producer and Company; the same has to be submitted to the enforcement officer of the government. Arbitration settlements are out of Court done in person. Parties to be in ambit of the arbitrator final decisions.

The Bargaining power of the Corporates is higher compared to farmer and due to absence of Arbitration agreement, breach of contract would be very high; resulting in Court of law.

This would be considered to be the most exploitive Model.
This model can be further developed with the establishment of systems that can specifically monitor and govern contract farming and the relationship between the farmers and corporates.

As per Y. Vinay Kumar [8] [Y. Vinay Kumar, Swati Sharma and Bhavesh D. Chaudhari, February 2019], there are 5 models of Contract Farming; which are summarized below. These models are the ways in which farmers and purchasers (corporates) are connected including the segregation of work responsibilities in the process of Agricultural production and their sales.

### Centralized Model

![Centralized Model](image)

This model can be highly efficient if it is driven with the absence of profit maximization motive. Farmers can be equipped with potential resources by the corporates, thereby increasing the productivity of the produce with presence of corporates guidance throughout the process of production. Since the grading, sorting and packing is done by the corporates after the purchase of the produce from the farmers, the wastage in the process of supply chain is reduced to a large extent benefitting both the parties.

This model demands for maintenance of high-quality relationship between the farmers and corporates. There is need for established mechanism in which the contracts and farmers are protected legally. Due to high bargaining power of corporates, this model can pose a high threat to farmers in worst scenarios.

### Nucleus estate Model

![Nucleus estate Model](image)

Establishment of policies and regulations basis which the Enforcement officer of the government would take decisions; would decide the success of this model.
In this model, the farmers work for periodic payments; involve only in the production activity. Contract is entered between the Sponsors and the corporates. Resources required for production would be managed by the sponsors. The bargaining power of Sponsors and corporates would be in a balanced state and thereby both trying to achieve maximum profits. In this process the farmers and Land would be exploited for increasing productivity. This is effective in case of large cultivators working as sponsors and farmers with no land.

**Multipartite Model**

![Diagram of Multipartite Model]

Figure 2.3

Under this model, Statutory bodies and corporates jointly enter into contract with the farmers. There is absolute segregation of credit management, production, processing and marketing. Statutory bodies act as a facilitator to farmers. The presence of Statutory bodies enable protection to farmers from exploitation. However, with the current corruption in the country, these statutory bodies may act in favour of corporates as the farmers bargaining power, required knowledge and skills to manage the execution of the contract is low. Establishment of laws and regulations to govern these statutory bodies can reduce the adverse effect of such models.

**Informal Model**

![Diagram of Informal Model]

Figure 2.4

This model is in focus of the small enterprises and individual farmers who enter into simple informal contracts on seasonal basis. Where the intermediaries/ implementing agencies manage credit, insurance and other inputs for Production. It would be considered to be an Exploitive model as the farmers are exposed to exploitation by intermediaries as well as the enterprises. Farmers can also fall into debt traps under this model as in most of the cases intermediaries and small enterprises are same. There is absolute absence of governance from statutory bodies, leading to increase in further exploitation of farmers. Farmers are expected to have absolute knowledge of the market and good bargaining power, for this model to be successful.
Intermediary Model

![Diagram of Intermediary Model](image)

**Figure 2.5**

NGOs, Farmer groups or collecting agencies act on behalf of the farmers with the corporates in all aspects of contract farming. These groups are formed with an informal understanding between many small farmers to meet the big needs of the corporates. Absence of regulatory bodies in the process of execution of the contract farming would make this model not suitable for the present-day economic conditions as these farmer groups if formed would be headed by the politically influential individuals who can work towards well-being of one self rather than the group.

**Boons of Contract Farming to farmers**

In Contract Farming, sponsors normally take the responsibility to purchase all the agricultural production with the predefined quality and quantity agreed in the contract. This instrument also enables assistance to farmers in terms of credit management, technological improvisations, and other services that would have otherwise unobtainable. These agreements also act as a collateral for various loan requirements to farmers for funding production. Basis the above review of various papers on contract farming, below listed are the prospects of contract farming to farmers.

1. Various intermediary organizations provisions for production inputs and services.
2. Agreements can enable access to credit facility to small farmers from various private and public market players.
3. Contract farming with corporates would enable introduction of appropriate technology and Skill transfer due corporates global exposure.
4. Prices of the produce are fixed even before the sowing stage which would guarantee and fix the pricing structures.
5. Collaborations with corporates and intermediaries under established and governed platforms provide access to reliable markets.
6. It also Increases private capital inflows in agriculture sector; enormous potential yet to be tapped.
7. The exploitation of farmers in Spot market purchases with uncertainties faced in terms of quality, quantity and pricing mechanism can be suppressed.
8. It is a means of establishing the connection between the Demand and Supply factors of consumers and producers.
9. Under contract farming, contractors are guaranteed with steady source of supply encouraging investments at large scale.
10. Contract farming would assure the inputs for production for small farmers thereby encouraging participation of small farmers in unification of global Agri-market with domestic Agri-market.
Contract Farming is a distress to farmers for following reasons:

With the aforesaid prospects comes along with certain challenges which can be turned into opportunities in the long run. There are a number of potential problems to be faced by farmers associated with contract farming:

1. Lack of complete knowledge on the contract farming would increase the risk in terms of coordination among the parties to the contract and its execution.
2. Lack of technology to test the suitability of technology and crop compatibility of the land characteristics.
3. The prevailing corruption dominated by monopolies and manipulation of quality specification along with Indebtedness and over reliance on advances.
4. Lack of availability of alternatives and access to information on contract farming.
5. Feasibility of contract farming for farmers with small size land.
6. Due to Price fluctuations, farmers sometimes tend to divert the agricultural produce to spot markets when prices are high, instead of executing the contract.
7. Corporates tend to work on cost cutting calculations, in long run farmers might not be honoured similar to the past years as the farmers will end up with no alternative markets to sell the produce.
8. Lack of established statutory regulatory authority might lead to unintended problems for farmers.
9. Low level of commitment of corporates towards rural development, leading to less employment generation, transparency in the system and communication.

Conclusions and Recommendations

Awareness on Contract farming is growing very rapidly. Large farmers with more land and political influence are able to take the advantage of contract farming. Whereas, small farmers with less land are yet to tap the potentials of contract farming. This review paper suggests that below recommendations on how contract farming can be successful, be discussed and debated and also be researched for solutions on various problems in execution of contract farming that can have a significant impact on the lives of the farmers and thereby on the economy:

1. Educating the farmers on Contract farming so that farmers will have better bargaining power.
2. Establishing statutory bodies to regulate the Market of contract farming with policies and regulations.
3. Contracts between the farmers and producers needs to be more transparent in terms of terms and conditions.
4. Encouragement to be provided to the intermediaries such as NGOs, Farming groups, SHGs and such other similar associations forming to help farmers.

Proposed Hybrid Regulated Model Framework

![Fig 3.0](image-url)
With all the above suggestions Hybrid Regulated Model can be built which would be apt to the current day economic conditions. Where the farmers can form Associations, which would be regulated by an established statutory body. This statutory body would be fixing the terms and conditions of the contract, pricing, quantity and quality of the produce. Farmers would enter into contract with the statutory body and intern statutory body would enter into contract with various buyers of the agricultural produce.

This can ensure the protection of the farmers interest in the process of contract farming, as the farmers are not directly exposed to the corporates which would protect farmers from weak bargaining power and also enable Farmers with required knowledge on contract farming with timely technological and financial assistance.

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