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REDUCING THE PRICE GAP IN AGRICULTURAL PRODUCT MARKETS: INTERNATIONAL SOLUTIONS AND BEST PRACTICES

Aykhan Arif Gadashov

Head of the portal azexport.az

Ph.D. student of the Agricultural Research Center

e-mail: Aykhan.gadashov@ereforms.gov.az

Abstract

The agricultural sector faces numerous challenges, including limited market access and the involvement of intermediaries leading to a significant price gap. To address these issues, several solutions have been implemented, such as e-commerce platforms, direct marketing channels, and policy interventions. E-commerce has the potential to revolutionize the agricultural sector by providing a direct connection between farmers and consumers, leading to increased profits for farmers and lower prices for consumers. This article provides information about the solutions applied in the world to eliminate the price difference between the farmer and the consumer by using modern technological innovations and examines the application directions.

Keywords: *agriculture, price gap, intermediaries, e-commerce, direct marketing channels, policy interventions, farmers' markets, community-supported agriculture, international solutions.*

Introduction

The involvement of intermediaries in the agricultural supply chain is a significant challenge that farmers and consumers face worldwide. Intermediaries, such as traders, wholesalers, and processors, often purchase products from farmers at low prices and sell them to retailers and consumers at much higher prices. This results in a significant price gap between the prices paid to farmers and the prices paid by consumers. In many cases, the price gap can be as high as 300-400%.

The role of intermediaries in agricultural markets has been a subject of concern in many countries. In India, for example, farmers receive only a small fraction of the price paid by consumers for their products. According to a study by the National Sample Survey Organization, farmers in India receive only 30-40% of the retail price of their products. The rest goes to intermediaries, such as traders and commission agents [1].

Similarly, in Nigeria, farmers face significant challenges due to the involvement of intermediaries. The country's agricultural sector is characterized by low productivity, high post-

harvest losses, and the prevalence of middlemen who exploit farmers by purchasing products at low prices and selling them at inflated prices [2].

The problem of intermediaries in agricultural markets is not limited to developing countries. In the United States, for example, intermediaries often have significant market power, allowing them to control prices and manipulate market conditions. According to a study by the National Farmers Union, only 15 cents of every dollar spent on food by U.S. consumers goes to farmers, while the rest goes to intermediaries [3].

The involvement of intermediaries in agricultural markets is a significant challenge that farmers and consumers face worldwide. Intermediaries often purchase products from farmers at low prices and sell them at inflated prices, resulting in a significant price gap. This price gap often leads to low profits for farmers and high prices for consumers. Examples from India, Nigeria, the United States and other countries highlight the extent of the problem and the need for solutions to address it.

Effective International Solutions for Reducing Price Gaps in Agricultural Product Markets

To reduce the price gap in agricultural product markets, several solutions have been implemented based on international practices. Here are some of the most effective solutions:

Direct Marketing Channels. Direct marketing channels, also known as alternative marketing channels, have become increasingly popular in recent years as a way to address the problem of intermediaries in agricultural markets. These channels allow farmers to sell their products directly to consumers, bypassing intermediaries and their associated fees and markups.

Farmers markets are one of the most popular direct marketing channels worldwide. They are typically held in urban or suburban areas and provide consumers with access to fresh, locally-grown products at reasonable prices. In the United States alone, there are over 8000 farmer's markets, generating an estimated \$1 billion in sales each year [4].

Another popular direct marketing channel is community-supported agriculture (CSA) programs. In CSA programs, consumers pay a fee upfront to a farmer or group of farmers in exchange for a share of their crop.

This arrangement provides farmers with a reliable source of income and allows consumers to receive a regular supply of fresh, locally-grown products throughout the growing season [5].

Direct-to-consumer online platforms have also emerged as a popular direct marketing channel in recent years. These platforms allow farmers to sell their products online and ship them directly to consumers, eliminating the need for intermediaries. Examples of such platforms include Farmigo in the United States and Farm in Switzerland [6].

In Europe, direct marketing channels account for about 10% of total food sales. In France, for example, farmers markets and direct-to-consumer sales account for about 5% of total food sales, while in Germany, direct sales account for about 10%. In Switzerland, direct sales through farmers markets, farm shops, and online platforms account for about 20% of total food sales [7].

Direct marketing channels have several benefits for both farmers and consumers. For farmers, these channels provide a reliable source of income and allow them to get a better price for their products. For consumers, direct marketing channels provide access to fresh, high-quality products at

lower prices. Additionally, these channels promote local agriculture, support small-scale farmers, and reduce the environmental impact of long-distance transportation.

Direct marketing channels provide an effective solution to the problem of intermediaries in agricultural markets. They offer farmers a way to sell their products directly to consumers, while providing consumers with access to fresh, high-quality products at reasonable prices. By promoting local agriculture and supporting small-scale farmers, these channels contribute to sustainable and resilient food systems.

Policy Interventions. Policy interventions are critical in reducing price gaps in agricultural product markets. By promoting fair pricing and transparency, policymakers can reduce the market power of intermediaries and create a more competitive and efficient supply chain. Some examples of policy interventions are:

- **Strengthening competition policy:** Policymakers can strengthen competition policy to ensure that intermediaries and other actors in the supply chain do not engage in anti-competitive practices. This can be done by setting up an independent regulatory body to monitor the market and enforce competition laws. For example, the European Union's competition policy framework aims to promote competition and prevent anti-competitive practices in the agricultural sector [8];

- **Increasing transparency:** Policymakers can increase transparency in the agricultural sector by mandating the disclosure of price information and improving market intelligence. This can help farmers make informed decisions about when and where to sell their products. For example, the United States Department of Agriculture (USDA) publishes a daily report of market prices for various agricultural products [9];

- **Developing alternative marketing channels:** Policymakers can support the development of alternative marketing channels, such as farmer cooperatives and direct marketing, which can reduce farmers' reliance on intermediaries. For example, the Kenyan government has set up a program to support farmer cooperatives, which has helped farmers to negotiate better prices for their products;

- **Improving infrastructure:** Policymakers can improve infrastructure, such as roads and storage facilities, to reduce transport costs and post-harvest losses. For example, the Indian government has launched a program to improve rural roads, which has helped to reduce transport costs for farmers;

- **Providing financial support:** Policymakers can provide financial support to farmers, such as subsidies or credit, to help them invest in their farms and improve their productivity. For example, the Brazilian government provides subsidized credit to small farmers through its “Programa Nacional de Fortalecimento da Agricultura Familiar (PRONAF)” [10].

Overall, policymakers have a critical role to play in reducing the price gap in agricultural product markets. By implementing policies that promote fair pricing and transparency, policymakers can create a more competitive and efficient supply chain, which can benefit both farmers and consumers.

Price controls: Price controls can help regulate the prices of agricultural products and prevent intermediaries from manipulating market conditions. Price controls refer to government policies that

set limits on the prices of certain goods or services, including agricultural products. In the context of agriculture, price controls can be used to regulate the prices that farmers receive for their products, or the prices that consumers pay for agricultural goods.

Price controls can take various forms, such as price floors or price ceilings. Price floors set a minimum price for a good or service, while price ceilings set a maximum price. In the case of agricultural products, price floors are often used to ensure that farmers receive a fair price for their products, while price ceilings are used to prevent excessive price increases for consumers.

Price controls can be effective in reducing price gaps in agricultural product markets by regulating the prices that intermediaries can charge. By setting limits on the prices that intermediaries can charge, price controls can prevent intermediaries from manipulating market conditions and taking advantage of farmers and consumers.

However, price controls can also have unintended consequences, such as reducing the incentives for farmers to produce more and lowering the quality of agricultural products. Price controls can also lead to shortages or surpluses of agricultural products, as the government-mandated price may not reflect the true market value of the product.

The European Unions Common Agricultural Policy (CAP) is a system of agricultural subsidies and price supports that aims to ensure a stable income for farmers while also maintaining food security and preserving the environment. The CAP includes measures such as direct payments to farmers, market support measures, and rural development programs [11].

Minimum support prices (MSP) are set by the Indian government to ensure that farmers receive a minimum price for their crops. The government buys crops at this minimum price if the market price falls below the MSP, providing a safety net for farmers [12].

These examples are instances of price controls in agriculture, as they involve government intervention to regulate prices and ensure that farmers receive a certain level of income for their crops.

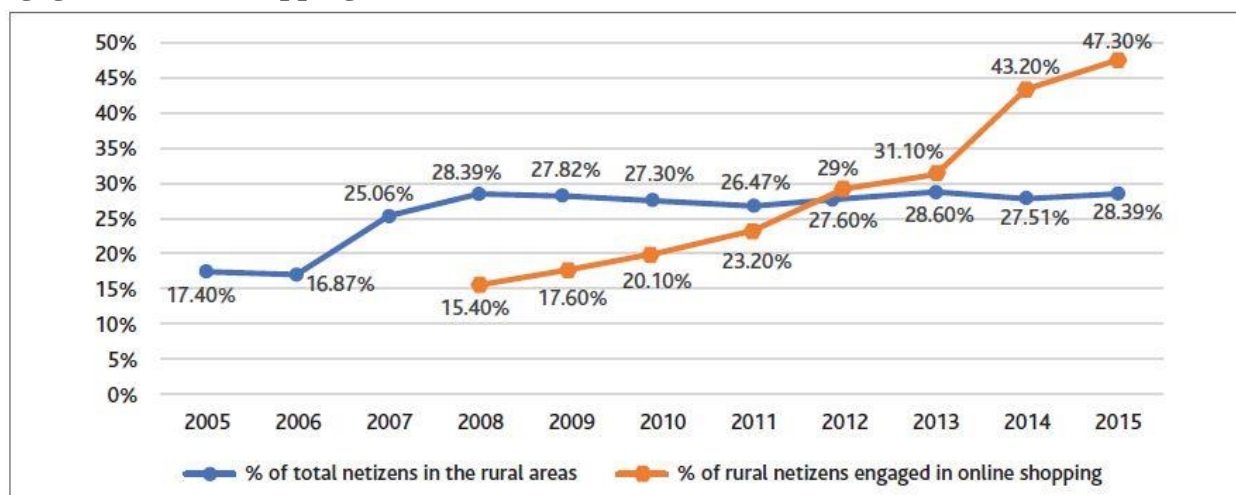
E-commerce in agriculture

E-commerce technologies can play a significant role in reducing the price gap in agricultural product markets by connecting farmers directly with consumers and reducing the reliance on intermediaries. Here are some ways in which e-commerce technologies can help:

Direct sales to consumers: E-commerce platforms allow farmers to sell their products directly to consumers, eliminating the need for intermediaries and reducing transaction costs. For example, in China, e-commerce giant Alibaba launched an online platform called Rural Taobao. Rural Taobao is an online marketplace platform helps farmers sell their agricultural products directly to consumers in urban areas of China. The platform provides a direct-to-consumer model that eliminates intermediaries, reduces transaction costs, and increases farmers income. Rural Taobao has transformed the way small farmers conduct business, especially in remote rural areas where physical access to markets is difficult [13];

Through the platform, farmers can list their products and connect with consumers in cities who are willing to purchase their products. The platform also provides logistical support for the transportation and delivery of products from rural areas to cities.

Table. Percentage of total Chinese netizens in the rural areas and Chinese rural netizens engaged in online shopping



Source: "E-commerce and Taobao Villages", Anthony H.F.Li

Rural Taobao has expanded to cover almost all provinces in China, and as of 2020, the platform had over 300 million users and 20 million rural sellers. According to Alibaba, Rural Taobao has helped lift more than 10 million farmers out of poverty.

Online marketplaces: E-commerce platforms can also act as online marketplaces, where farmers can list their products and buyers can bid on them.

This can increase competition and help to ensure fair prices for both farmers and buyers. For example, in India, the government launched an e-marketplace called e-NAM, which connects farmers with traders and buyers across the country [14].

Traceability and quality control: E-commerce technologies can also help to ensure traceability and quality control, which can increase consumer trust and reduce the risk of fraud. For example, in Japan, the government launched a platform called the Food Traceability System, which uses blockchain technology to track the entire supply chain of agricultural products, from production to consumption [15].

Improved logistics: E-commerce platforms can also improve logistics and reduce transport costs by optimizing delivery routes and reducing wastage. For example, in Nigeria, e-commerce platform Farmcrowdy partners with logistics companies to provide last-mile delivery services for farmers, reducing the cost and time required to transport products to market [16].

Financial inclusion: E-commerce technologies can also help to promote financial inclusion for farmers by providing access to credit and financial services. For example, in Kenya, e-commerce platform Twiga Foods partners with financial institutions to provide credit to smallholder farmers, allowing them to invest in their farms and improve their productivity.

Overall, e-commerce technologies can help to reduce the price gap in agricultural product markets by connecting farmers directly with consumers, improving traceability and quality control, and reducing transaction costs and transport costs. By leveraging these technologies, policymakers can promote fair pricing and transparency in agricultural markets, which can benefit both farmers and consumers.

Regulations on the use of middlemen

Regulations on the use of middlemen in the supply chain can help reduce the number of intermediaries and make the supply chain more efficient and cost-effective.

Market information systems: Market information systems that provide farmers with up-to-date information on market conditions, prices, and demand can help farmers make better decisions and negotiate better prices.

For example, in India, the government has implemented several policy interventions to reduce the price gap in agricultural product markets. These interventions include minimum support prices for farmers, e-NAM (electronic National Agriculture Market) platform to promote transparency in agricultural trade, and the “Pradhan Mantri Fasal Bima Yojana” (crop insurance scheme) to provide financial protection to farmers against crop losses [17].

Another example of policy interventions aimed at reducing price gaps in agricultural product markets can be seen in the European Union (EU). The EU has implemented a Common Agricultural Policy (CAP) that includes measures to support farmers, promote sustainable farming practices, and ensure food security. One of the key components of the CAP is the market support measures, which aim to stabilize markets and ensure fair prices for farmers [18].

The EU's market support measures include intervention buying, which involves the purchase of agricultural products by the EU when prices fall below a certain level, and private storage aid, which provides financial assistance to farmers for storing products until market conditions improve. The EU also implements market information systems, such as the European Market Observatory for Agriculture, which provides farmers with up-to-date market information to help them make informed decisions.

Another example can be seen in Brazil, where the government has implemented policies to support small-scale farmers and reduce price gaps in the agricultural sector. The government has provided subsidies for small-scale farmers, which includes financing for agricultural inputs, machinery, and equipment. Additionally, the government has implemented programs such as the National Program for Strengthening Family Agriculture (PRONAF) and the Food Acquisition Program (PAA), which aim to support small-scale farmers and increase access to food for vulnerable populations.

Overall, policy interventions aimed at reducing price gaps in agricultural product markets can help promote fairness, transparency, and efficiency in the agricultural supply chain. By providing support to farmers and reducing the market power of intermediaries, policymakers can create a more equitable and sustainable agricultural sector.

Conclusion

Agricultural product prices are often higher due to intermediaries, which can have negative impacts on both farmers and consumers. However, there are several solutions to reduce the price gap.

One solution is to improve market access for smallholder farmers by creating direct links between them and consumers. This can be achieved through farmer's markets, cooperatives, or online platforms. By eliminating intermediaries, farmers can receive fair prices for their products while consumers can access fresher, healthier, and often cheaper produce.

Promoting agricultural technology and innovation can also help reduce the price gap. Precision farming, digital platforms, and e-commerce can increase farmers' productivity and efficiency, reduce waste, and better connect them with consumers.

Government policies can play a crucial role in reducing the price gap as well. Subsidies and incentives can encourage farmers to adopt sustainable practices and increase their competitiveness, while regulations can promote fair and transparent markets.

Azerbaijan has taken several steps towards improving market access for smallholder farmers, including implementing farmer's markets and cooperatives and launching the Azexport online platform.

Furthermore, the government has launched several programs to support small-scale farmers, including the "State Program on Socio-Economic Development of Regions for 2014-2018" and the "State Program Food safety in the Republic of Azerbaijan for the years 2019-2025". These programs aim to improve the competitiveness of the agricultural sector, increase productivity, and reduce the dependence of farmers on intermediaries.

International cooperation and coordination can also help address the global nature of the problem. By working together, countries can reduce trade barriers, promote sustainable agriculture, and ensure that all people have access to safe and nutritious food.

Reducing the price gap in agricultural markets requires a multi-faceted approach that involves improving market access for farmers, promoting agricultural technology and innovation, implementing supportive government policies, and fostering international cooperation and coordination. By taking these steps, we can create a more sustainable and equitable agricultural sector that benefits farmers, consumers, and the environment.

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A.A. Qədəşov
azexport.az portalının rəhbəri
Aqrar Tədqiqatlar Mərkəzinin *doktorantı*

Kənd təsərrüfatı məhsulları bazarında qiymət fərqinin aradan qaldırılması: beynəlxalq həllər və ən uğurlu təcrübələr

Xülasə

Kənd təsərrüfatı sektoru qiymət fərqinə yol açan vasitəçilərin fəaliyyəti də daxil olmaqla çoxsaylı çətinliklərlə üzləşir. Fermerlərin alıcılara daha rahat çıxma bilməsi üçün dünyada müxtəlif texnoloji yeniliklər tətbiq edilmişdir. Bunlardan marketing kanalları, e-ticarət platformaları və nəzarət mexanizmlərini qeyd edə bilərik. Bu məqalədə müasir texnoloji yeniliklərdən istifadə etməklə fermer və istehlakçı arasında yaranan qiymət fərqinin aradan qaldırılması istiqamətində dünyada tətbiq olunan həllər barədə məlumat verilmiş və tətbiq istiqamətləri araşdırılmışdır.

***Açar sözlər:** kənd təsərrüfatı, qiymət fərqi, vasitəçilər, e-ticarət, birbaşa marketing kanalları, nəzarət mexanizmləri, fermer bazarları, beynəlxalq həllər.*

A.A. Гадашов
Глава портала azexport.az
Докторант Центра аграрных исследований

Сокращение ценового разрыва на рынках сельскохозяйственной продукции: международные решения и лучшие практики

Резюме

Сельскохозяйственный сектор сталкивается со многими проблемами, включая посредническую деятельность, которая приводит к разнице в ценах. Применяются различные

технологические инновации, чтобы фермерам было легче найти покупателей. К ним относятся каналы сбыта, платформы электронной коммерции и механизмы контроля. В данной статье представлена информация о применяемых в мире решениях для устранения разницы в цене между фермером и потребителем за счет использования современных технологических новинок, а также исследуются области применения.

Ключевые слова: *сельское хозяйство, ценовая разница, посредники, электронная коммерция, прямые каналы сбыта, механизмы контроля, фермерские рынки, международные решения.*