

## Historical Formation of Juice Production Enterprises

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**Abstract:** This article analyzes the historical formation of juice production enterprises, their development stages, and the process of transformation into modern industry. It discusses the changes in juice production methods from ancient civilizations to the industrial revolution, technological advancements, and contemporary production processes. Additionally, the current state and prospects of the juice production industry in Uzbekistan are examined.

**Keywords:** juice production, industry, formation, history, enterprise, technological development, fruit juices, food industry.

### INTRODUCTION

The juice production industry has played an important role in human history since ancient times. In Ancient Egypt and the Roman Empire, natural juices were prepared by pressing fruits, while during the Middle Ages in Europe and Asia, juices were often made from dried fruits. During the Industrial Revolution, juice production technologies evolved significantly, and methods of preservation and delivery for consumption were improved. Especially in the 19th–20th centuries, the emergence of canning technologies marked rapid progress in the juice industry [1].

Today, juice production technologies have become even more advanced across the globe, and the demand for natural and healthy products continues to grow. According to the World Health Organization (WHO), the consumption of natural juices is increasing every year due to their health benefits. In Uzbekistan, the sector is also developing steadily, with the production of various types of juices being established. Each year, thousands of tons of fruits and vegetables are grown in the country, and their processing creates added economic value. This industry is essential not only for meeting domestic demand for natural beverages but also for expanding export opportunities.

To support these developments and further enhance the competitiveness of the juice production sector, the Presidential Decree of the Republic of Uzbekistan dated February 21, 2024, states that within the framework of the "Uzbekistan — 2030" strategy, the introduction of international standards in the food industry will help boost the competitiveness of manufacturing enterprises. Moreover, the strategy outlines plans to attract five international food brands and establish production lines, thereby fostering the adoption of global experience in fruit and vegetable processing, improving product quality, and increasing export potential [2].

## RESEARCH MATERIALS AND METHODS

The process of juice production dates back to ancient times. In the civilizations of Ancient Egypt and Mesopotamia, pomegranate and grape juices were used for medicinal and ceremonial purposes. During the Greek and Roman periods, the art of juice preparation advanced, and preservation techniques were improved. In the Middle Ages, natural juices were mainly prepared from dried fruits in the Middle East and Asia.

The invention of juice production technologies such as **pasteurization** in the late 19th and early 20th centuries enabled longer shelf life of juices. Today, production processes are based on high technologies, with great attention paid to the manufacturing of organic and natural juices.

In the Middle Ages, there is limited historical data on the juice production techniques and related buildings in the Middle East and Asian regions. However, based on available sources, a general understanding of beverage preparation processes and associated facilities from fruits and plants can be formed.

Juice production in this era was primarily manual and consisted of the following stages:

- **Harvesting and preparation:** Ripe fruits were hand-picked, cleaned, and crushed using wooden or stone tools.
- **Juice extraction:** Special presses or manual squeezing methods were used depending on the type of fruit.
- **Filtration and storage:** The extracted juice was filtered through cloth or other materials and stored in ceramic, metal, or wooden containers [3].

Due to the small-scale nature of juice production, there were no special production buildings. The process was usually carried out in:

- **Households** – Juice was commonly made at home.
- **Markets and trade centers** – Served as places for both preparation and sale of beverages.
- **Palace and madrasa kitchens** – Facilities for nobility and religious institutions often included kitchens where juices were prepared [4].

Although juice production was initially small-scale and lacked specialized buildings, demand increased over time. Particularly during the Industrial Revolution, technological progress led to the formation of large production enterprises. This trend was also observed in the Russian Empire, where juice factories began operating in the late 19th and early 20th centuries.

During the Soviet era, the juice production industry was incorporated into the centrally planned economy, and juice factories were transformed into large industrial complexes. In Russia, juice production has a long history and is closely tied to the country's economic and social development.

Early periods: In Russia, the tradition of processing fruits and vegetables goes back centuries, mostly carried out at the household level. Juices, jams, and compotes were made primarily by hand in small quantities.

Industrialization period: In the second half of the 19th century, industrialization began in Russia. The food industry, including fruit and vegetable processing, started to develop. Juice production was organized in small enterprises and cooperatives (artels), mostly serving local markets due to limited capacity.

Soviet era: In the early 20th century, especially during the Soviet Union, the food industry developed under a state-planned economy. Juice production was carried out by state-owned enterprises. Product variety was limited and primarily aimed at meeting domestic demand.

21st century: Today, Russia's juice production industry is rapidly developing. There is increasing competition between local and international brands. Consumers are focusing more on natural, additive-free products, encouraging producers to improve quality. The industry is becoming more innovation-driven and quality-oriented.

One of the major companies, Multon, produces a wide range of beverages including juices, nectars, fruit drinks, and purees (Pic. 1).

While Russia's juice industry began expanding on an industrial scale in the second half of the 20th century, in Uzbekistan, this sector developed much earlier. Favorable climate and abundant agricultural products laid a strong foundation for juice production in the region.



*Pic.1. Interior of the Russian juice drinks manufacturer Multon.*

In Uzbekistan, juice production was traditionally based on manual techniques. Natural juices were often prepared and sold in local markets and trade centers. In some cases, the process took place in royal palaces or kitchens of madrasas and mosques. During the Soviet period, the industry was systematically organized, and large juice factories were established.

From the 1960s to the 1980s, juice production facilities were operational in major cities such as Fergana Valley, Tashkent, and Samarkand (Pic.2).



*Pic. 2. General view of the Khovrenko winery in Samarkand*



During the years of independence, special attention has been paid to the juice production industry in Uzbekistan. Modern enterprises equipped with advanced technologies have been established. Today, within the framework of the “**Uzbekistan 2030**” strategy, the development of the food industry and the production of eco-friendly products are among the top priorities. As a result, the juice production sector is being expanded not only to meet domestic demand but also to boost export potential. The visit of President **Shavkat Mirziyoyev** to the “Marwin Brands” company in 2019 reflects the government’s support for the industry (Pic. 3).



*Pic.3. Visit of the President of our country Shavkat Mirziyoyev to the company "Marwin Brands"*

## CONCLUSION

This research analyzed the historical formation of juice production enterprises. It was found that the development of this industry is closely connected with technological progress, the expansion of raw material bases, and growing consumer demand. Initially, juice production relied heavily on manual labor, whereas modern enterprises are equipped with advanced technologies and innovative equipment.

The study explored different stages of development and the key factors that influenced major changes in the production process. Future research on this topic should focus on the integration of modern technologies, environmental aspects, and sustainable development opportunities in the juice industry. These findings hold practical significance for industry specialists and entrepreneurs in shaping strategic decisions for the future.

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