

The background of the slide is a photograph of numerous wooden crates stacked in rows, each filled with bright red apples. The focus is sharp on the apples in the foreground, while the crates in the background are slightly blurred, creating a sense of depth. The lighting is warm, highlighting the natural texture of the wood and the glossy surface of the fruit.

Supply Chain Management in the Food & Beverage Industry

Contents:

Executive Summary	3
• Key Opportunities	3
• Leading Distribution Channels	3
Industry Overview	3
Market Size & Growth Opportunities in Food & Beverage Sector	4
• Beverages Market Size	4
• Market Segmentation of Beverages	4
• Food Market Size	5
Key Players in the Industry 2022	6
Middle East and North Africa Industry Overview	7
GCC and Food and Beverage Industry	7
United Arab Emirates (UAE) Industry Overview	7
UAE Retail Market 2023	8
Distribution Channels in Retail Market	8
Food and Beverages Retail Market of the UAE	8
• Consumer-Oriented Market	8
• Food Processing Industry	9
• Food Retail Market	9
Online Grocery Stores	10
Competition In Retail Food Industry of the UAE	12
Leading Exporters of Consumer Oriented Products to the UAE	13
Key Issues in Food & Beverage Market in the UAE	13
Global Price Analysis	14
• Food and Agriculture Organization (FAO) Price Indices	14
Trends Driving Food and Beverages in 2023	17
• Clean Label & Sustainable Package	17
• Functional Beverages	17
• Plant-Based Food	17
• Socio-economic trends that impact food system	18
• Scientific-technological trends that impact food system	19



Executive Summary

The food and beverage industry will undergo a dramatic transformation in 2023. Technological advancements, such as AI-driven automation, robotics, and the Internet of Things, will enable businesses to operate more efficiently than ever before. Consumers will have access to a wider variety of products as well as to more personalized food and beverage experiences. The industry will also have become more sustainable, with initiatives such as food waste reduction, water conservation, and energy efficiency becoming commonplace.

Overall, the food and beverage industry will have become an increasingly vibrant sector of the global economy, providing a diverse range of employment opportunities and a wealth of innovative products and services.

Based on the report of The Business Research Company (TBRC), the food and beverage industry by 2023 will reach the level of \$8.9 trillion, coming up to a compound annual growth rate of 8.7%.

Key Opportunities

This year will bring optimistic opportunities for the food and beverage industry. The distribution channel of supermarkets/hypermarkets is expected to have a gain of \$895.4 in annual sales globally. Furthermore, health will be the main concern for the consumers, which will drive the trends among consumers.

Leading Distribution Channels

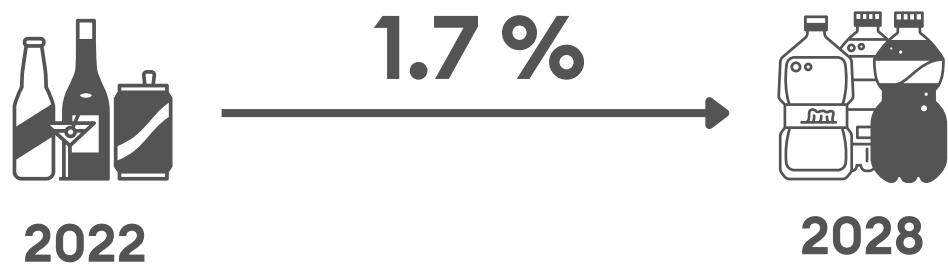
As mentioned above, supermarkets/hypermarkets are going to lead the industry; however, e-commerce will also be an important part in 2023. The experts have predicted it to be the fastest growing food and beverages sector, with the Compound Annual Growth Rate (CAGR) of 13.2% for the year 2021 through 2026.

Industry Overview

Market Size & Growth Opportunities in Food and Beverage Sector

Beverages Market Size

The beverage industry has been growing over the years, and as predicted by the experts, industry has a bright future globally. The market reached the value of US\$ 1,5252,8670 million in 2022 and is expected to grow with CAGR of 1.7% and reach the net worth of US\$ 1,69,1470 million by 2024.

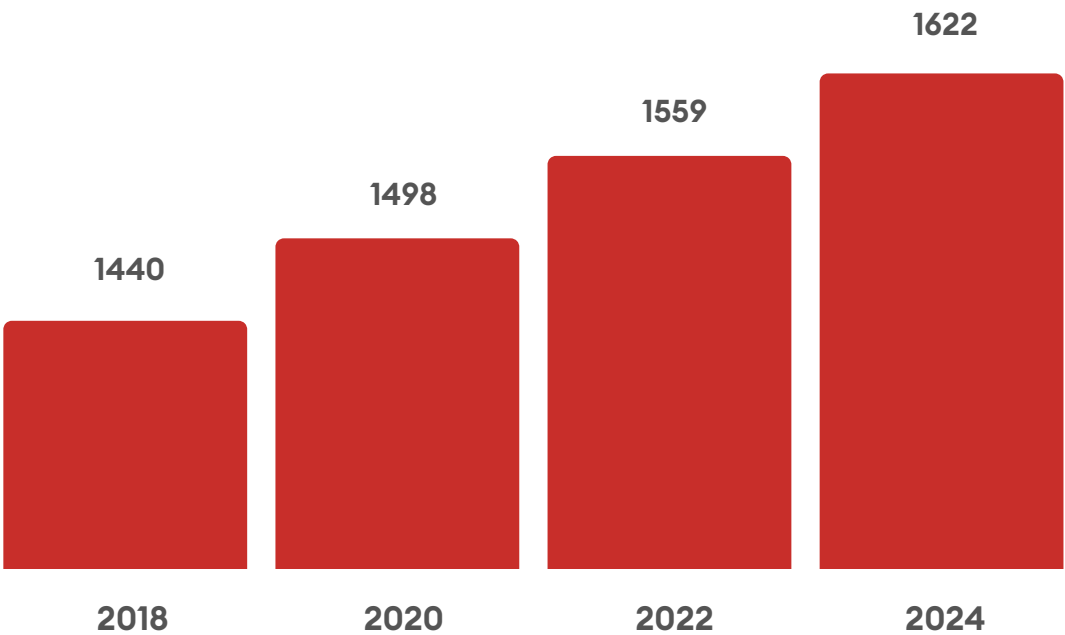


Market Segmentation of Beverages

The global beverage market is segmented into two major categories; alcoholic & non-alcoholic.

- **Alcoholic Beverages**

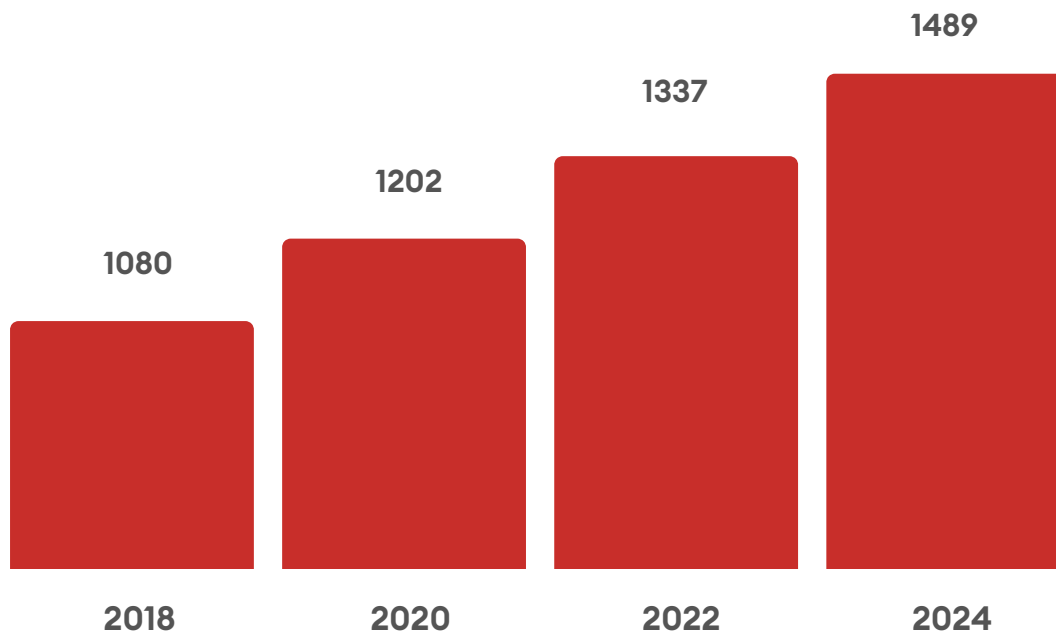
The market segment of alcoholic beverages comprises the following products: Spirits, Wines, Whiskey, Sake & Rice Wine. This market segment was valued at the value of US \$1,559 billion in the year 2022 and is expected to grow at a CAGR of 5.5%. The anticipation is that the industry will reach the value of USD 1209 billion in 2023 and USD 1622 in 2024.



Market Size of Alcoholic Beverages In Billion USD

- **Non-Alcoholic Beverages**

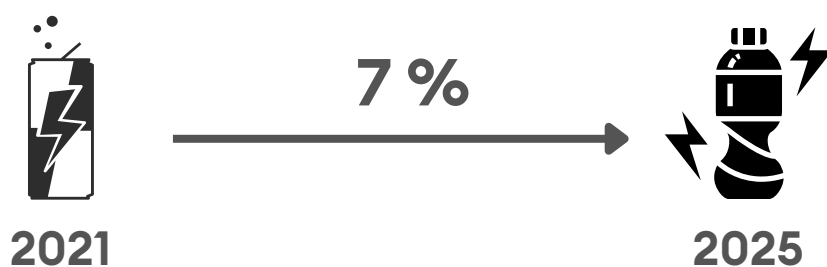
The non-alcoholic beverages include fruit juices, soft drinks, coffee & tea, and sports & energy drinks. The market was valued at USD 1337 billion in 2022 and is anticipated to grow at the rate of CAGR 5.5% with the projected value of USD 1885 billion in 2023 and USD 1489 in 2024.



Market Size of Non-Alcoholic Beverages In Billion USD

- **Functional Beverages**

As the awareness of body nutrition has been increasing, the demand for functional beverage has been increasing as well. The industry was projected at the value of USD 130.51 billion in 2021, and with the CAGR of 7% is expected to reach USD 173.23 billion by 2025.



Food Market Size

Revenue for the food market is expected to be USD 8.9trn for the year 2023 with the expected growth of CAGR around 6% for the period of 2023-2027. The largest share on the market segment is of confectionary and snacks, which will be worth USD 1.64trn in 2023.

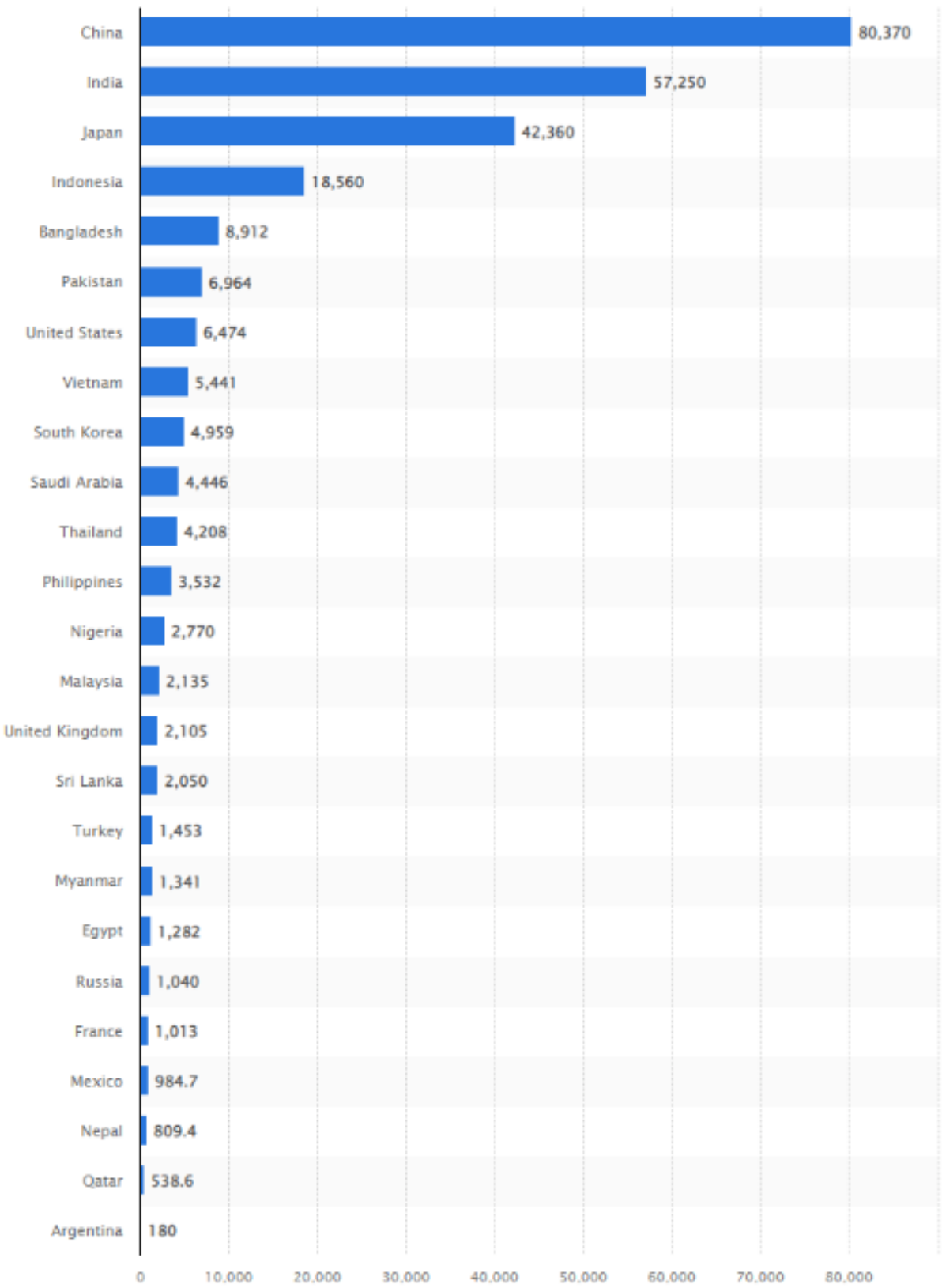
In this digital age, 8.5% of the total food revenue will be generated through online sales. Whereas the volume growth in the industry is expected to be consistent at 5.1% in 2024 with the average volume per person to be accounted at 240.87 kgs for the current year.

Image: <https://www.statista.com/outlook/cmo/food/worldwide#revenue>

Key Players in the Industry 2022

Revenue for the food market is expected to be USD 8.9trn for the year 2023 with the expected growth of CAGR around 6% for the period of 2023-2027. The largest share on the market segment is of confectionary and snacks, which will be worth USD 1.64trn in 2023.

In this digital age, 8.5% of the total food revenue will be generated through online sales. Whereas the volume growth in the industry is expected to be consistent at 5.1% in 2024 with the average volume per person to be accounted at 240.87 kgs for the current year.



Revenue of food market worldwide in 2022

Based on the last year performance, China has generated the most revenue in the industry, which is at USD80,370 million, followed by India with USD57,250 million, Japan at USD42,360 million, and so on.

Middle East and North Africa Industry Overview

On account of economic stress, political issues, and other instabilities, the Middle East and North Africa will be impacted greatly in the year 2023. The Ukraine war will continue to impact the market, keeping energy and food prices high throughout the year. While this will cause the energy importers to struggle, it can create great opportunities for the exporters. Whereas the increase in the food prices is likely to impact every stakeholder in the market; however, with financial resources, these stresses can easily be cushioned.

GCC and Food and Beverage Industry

The GCC region faces unique agronomic challenges due to soil composition, water scarcity, high temperatures, and rising groundwater salinity. In order to address these challenges, hydroponics and vertical farms have emerged as key trends for the region. These systems are being used to produce a variety of crops, such as tomatoes, cucumber, peppers, strawberries, papayas, oranges, and rice, while reducing water consumption by up to 90%. To further encourage local food production, new collaborations between the public and private sectors have been developed, and delivery services are being adapted to promote hydroponically grown local produce.

The Economist Intelligence Unit's (EIU) Food Sustainability Index shows that Saudi Arabia and the UAE, two GCC countries, rank in the bottom quartile of the 34 countries featured in the index due to their low scores for nutrition and food loss and waste. This provides a strong impetus for the transition to a circular economy in the food industry in the region.

Governments in the region are taking steps to improve soil quality, recycle green waste, and reduce food waste. Awareness of food waste, particularly during the month of Ramadan, is increasing. New technologies such as blockchain, IoT, and digital platforms are being explored to help reduce food waste and loss in the supply chain. Reducing food waste is important from both an economic and consumer-facing perspective.

The GCC region heavily relies on imports to meet its food demands and has taken steps to improve its food security position since the 2008 food price crisis. However, it needs to regularly update its strategy to reflect evolving risks and opportunities. The GCC has the potential to become a leader in promoting open and efficient food trade, given its ports and access to advanced technologies, as well as the recent developments in global trade.

United Arab Emirates (UAE) Industry Overview

UAE has held up to its status of powerhouse in 2022 and became one of the hottest places to do business due to its geographical significance. Luckily, the economic growth predicted for 2023 seems to be promising as well.

Based on the reports of the International Monetary Fund (IMF), the non-oil economy of UAE will grow by 4% in 2023, maybe more once the ongoing reforms are implemented. This makes UAE a fastest-growing economy in the region, followed by Saudi Arabia (3.7%), Bahrain (3%), Kuwait (2.6%), and Qatar (2.4%).



UAE Retail Market 2023

According to the study conducted in 2018 by Euromonitor, the retail market of the Gulf countries is predicted to grow more than USD 24 billion over the course of the next 5 years. UAE is expected to lead this trend with 16% growth rate, reaching the value of USD 63.8 billion in 2023 from the value of USD 55 billion in 2018.

The favorable demographic of the region and a strong economic growth projection will drive the growth for Kuwait, Saudi Arabia, Oman, and the UAE.

Distribution Channels in Retail Market

From the period 2018-2023, store-based retailing will lead the market, comprising of USD 52.7 billion. However, the other channels (non-stored based) are expected to grow by 78% during 2018-2023. The main distribution channels for non-store-based retailing includes mobile internet, direct selling, social media, home shopping, and online shopping.

The non-store retail will grow in the entire region, with Saudi Arabia will have the biggest share (93.5%), followed by Oman (68%), and Kuwait (48%).

Food and Beverages Retail Market of the UAE

UAE is a developed nation with a diverse audience, comprising 90% of foreign nationals. Due to the diversity, 80% of the agricultural products of the UAE are imported; the United States have sent about USD 1.13 billion for agriculture and related products in 2021.

Consumer-Oriented Market

Breaking down the imports from 2021, the UAE imported consumer-oriented products worth USD 6.4 billion, accounting for a total of 39% agricultural imports. Despite the market being competitive, it is expected that the US exports in this sector will increase.

Food Processing Industry

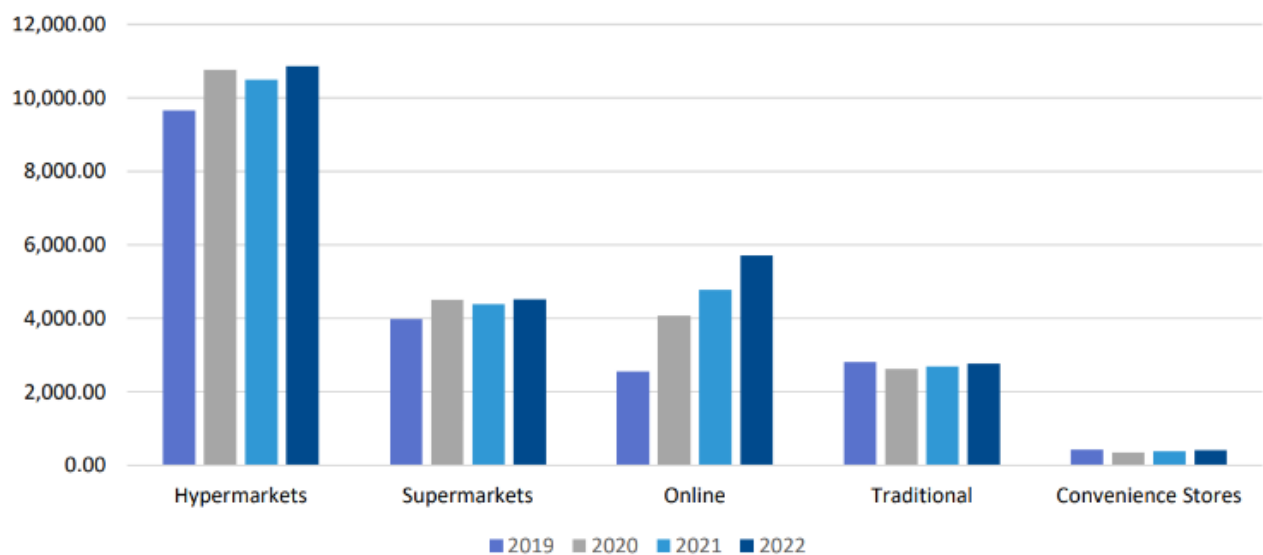
There are 568 food and beverage processors in the UAE, as recorded by the government statistics. Combined, there is a production of 5.96 million metric tons (MT) of food products annually, with 2.3 MT of staple food items. In 2021, USD 4.3 billion worth of bulk and intermediate products were imported, and 5% of these were from the USA.

Food Retail Market

The sales in the grocery retail industry exceeded the amount of USD 24 billion in 2021. This sector is dominated by several retailers that hold the maximum share in the UAE market. Additionally, E-commerce sales are increasing swiftly, reaching USD 4.8 billion in 2021.

Table 2:				
Retail Value Excluding Sales Tax (\$ millions)				
Segment	2019	2020	2021	2022
Hypermarkets	9,655.92	10,761.05	10,492.01	10,859.22
Supermarkets	3,973.5	4,510	4,388.1	4,524.13
Online	2,557.51	4067.54	4,782.64	5,705.39
Traditional	2,805.12	2,625.63	2,688.66	2,772
Convenience Stores	430.24	352.78	379.95	416.05
Total	18,731.28	19,421.57	22,152.55	23,441.8

Graph 1: Shifts in Sales by Retail Industry Segment (2019 - 2022)



Food retail holds the largest share in the UAE retail market and is forecasted to remain dominant in the coming years. The food retailers are divided into two categories; modern and traditional. The modern category comprises of regional grocery chains, express markets, hypermarkets, convenience stores, specialty grocers, and online grocers. Currently in Dubai and Abu Dhabi, modern trade is leading the market.

On the other hand, the traditional trade includes small standalone grocery stores and direct trading services. These channels cater to the immediate household needs, accept phone-in orders with no delivery charges. This type of trade is more common in the areas of Dubai and Northern Emirates. The grocery sales in this sector in the UAE make up 44.4% of the total retail market.



Online Grocery Stores

As mentioned earlier, E-commerce sales in the UAE has reached USD 4.8 billion in 2021. The products in the food and drinks categories had the third-highest share with 10.8%, which is valued at USD 515 million. This is mainly due to high income, increased internet penetration, better logistic networks, and an increasingly tech-savvy population. The major online stores in the UAE include Farzana, NRTCfresh, Good Basket, Farmbox, and Kibsons.

In addition to these, some of the conventional retail stores are also offering online shopping options, like Carrefour, Spinneys, Choithrams, and Lulu. Some retailers are also selling using third party websites, such as Amazon, El Grocer, and Instashop.

Here are some of the leading major retail channels in the food sector:

Major Supermarkets In 2021

Company/Brand	# Of Stores	Chain Type	Market Share
West zone	150	National	18.7
Al Maya Supermarket	51	National	13.2
Carrefour Market	+100	Regional	13.1
Spinneys	51	Regional	9.8
Al Madina Supermarket	49	National	9.6
Safeer Group	27	National	8.5
Waitrose	8	Regional	7.5
Choithram	43	Regional	5.3
Lulu Supermarket	28	Regional	1.9
Megamart	5	National	1.8

Organic Grocery Stores

Company/Brand	# Of Stores	Chain Type	Market Share
Organic Foods & Cafe	8	National	
Biorganic store	1	National	
Ripe Organic	1+	National	

Major Hypermarkets In 2021

Company/Brand	# Of Stores	Chain Type	Market Share
Carrefour	100+	National	18.7
Lulu Hypermarket	98	National	13.2

Major Online Retailers In 2021

Company/Brand	# Of Stores	Chain Type	Market Share
Amazon		National	15.7
Noon		National	5.3
Instashop/3 rd party merchants		National	
Careem Box/3 rd party merchants		Regional	
ElGrocer/3 rd party merchants		National	
Kibsons		National	
Good Basket		National	
Farzana		National	
Ripe Online		National	

Competition In Retail Food Industry of the UAE

The retail market of the UAE is highly competitive and is saturated with local, regional, and imported products. In short, there are diverse products in the UAE market; however, there is more potential for dairy products like cheese, animal proteins, and fresh fruits. Based on the predictions by the regional retailers, the demand for products like fresh food, meat, milk, plant-based foods, natural and organic, kosher, and free form will increase in the coming years. This trend is fueled by global food trends, increased incomes, and consumer awareness.

**IMPORTS OF CONSUMER ORIENTED PRODUCTS
(US\$ MILLIONS)**

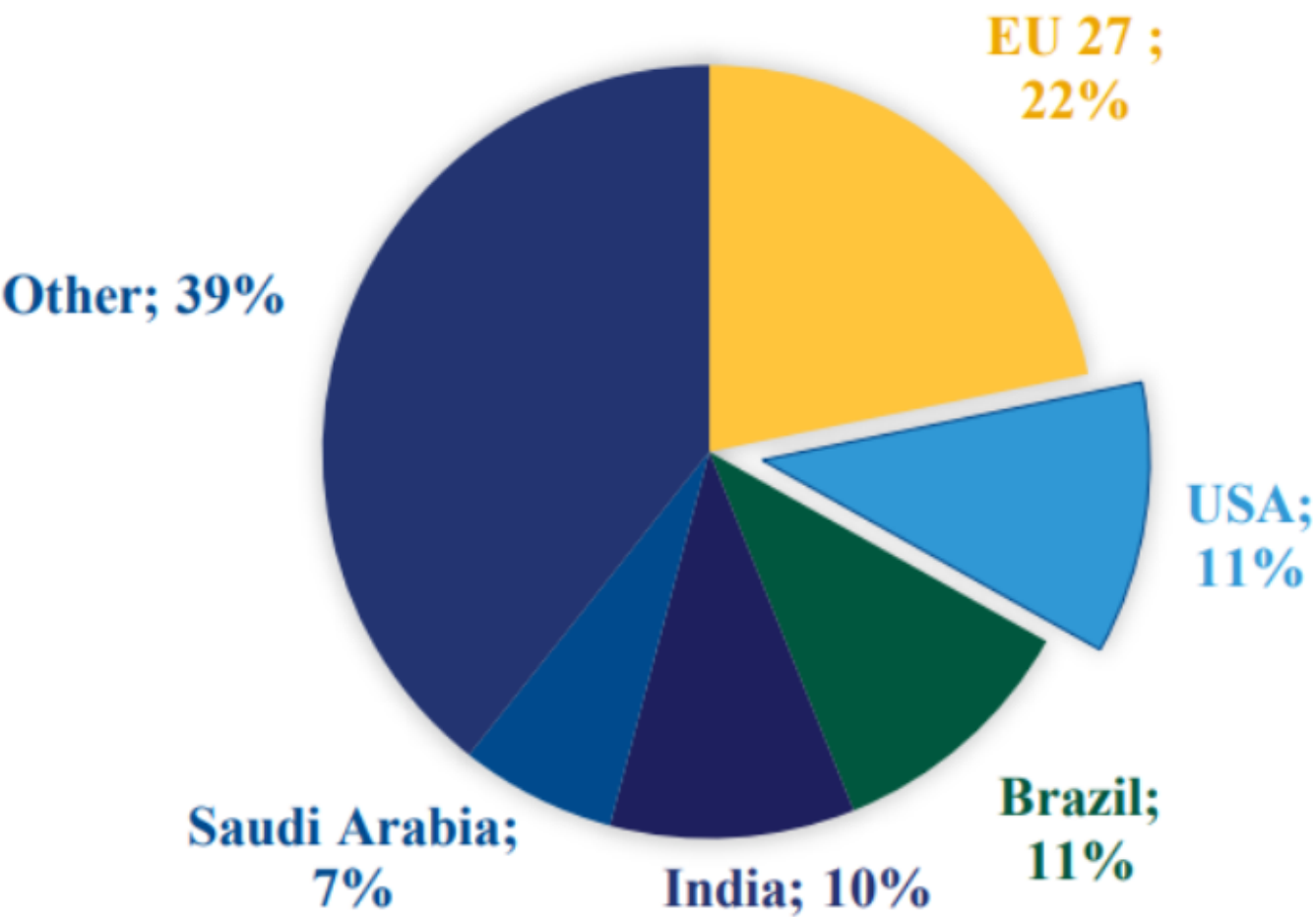


Table 2:				
Retail Value Excluding Sales Tax (\$ millions)				
Segment	2019	2020	2021	2022
Hypermarkets	9,655.92	10,761.05	10,492.01	10,859.22
Supermarkets	3,973.5	4,510	4,388.1	4,524.13
Online	2,557.51	4067.54	4,782.64	5,705.39
Traditional	2,805.12	2,625.63	2,688.66	2,772
Convenience Stores	430.24	352.78	379.95	416.05
Total	18,731.28	19,421.57	22,152.55	23,441.8

Leading Exporters of Consumer Oriented Products to the UAE

The total exports of consumer-oriented products to the UAE have reached the value of USD 10.8 billion. The top 10 countries that are exporting the consumer-oriented products to the UAE includes:

Table 4					
Global Exports of Consumer Oriented Products to the UAE					
Rank	Country	Exports 2019	Exports 2020	Exports 2021	% Market Share 2021
1	EU	2,193,918,927	1,989,579,888	2,203,172,566	20.4
2	India	1,050,176,504	993,946,795	1,265,246,548	11.7
3	Brazil	911,122,344	675,660,973	1,038,257,451	9.6
4	United States (Consumption/Domestic)	958,658,165	731,262,659	899,041,000	8.3
5	Saudi Arabia	776,692,885	688,195,557	737,795,332	6.8
6	New Zealand	432,920,193	424,945,892	480,910,909	4.5
7	China	381,456,055	361,754,728	436,065,760	4.0
8	United Kingdom	379,663,815	301,425,975	394,308,624	3.7
9	Australia	373,160,971	325,312,453	383,661,856	3.6
10	Turkey	266,979,559	272,714,309	343,077,934	3.2
Global exports of consumer-oriented products to the UAE		10,238,186,954	9,273,067,746	10,791,222,193	

Source: Trade Data Monitor LLC

Key Issues in Food & Beverage Market in the UAE

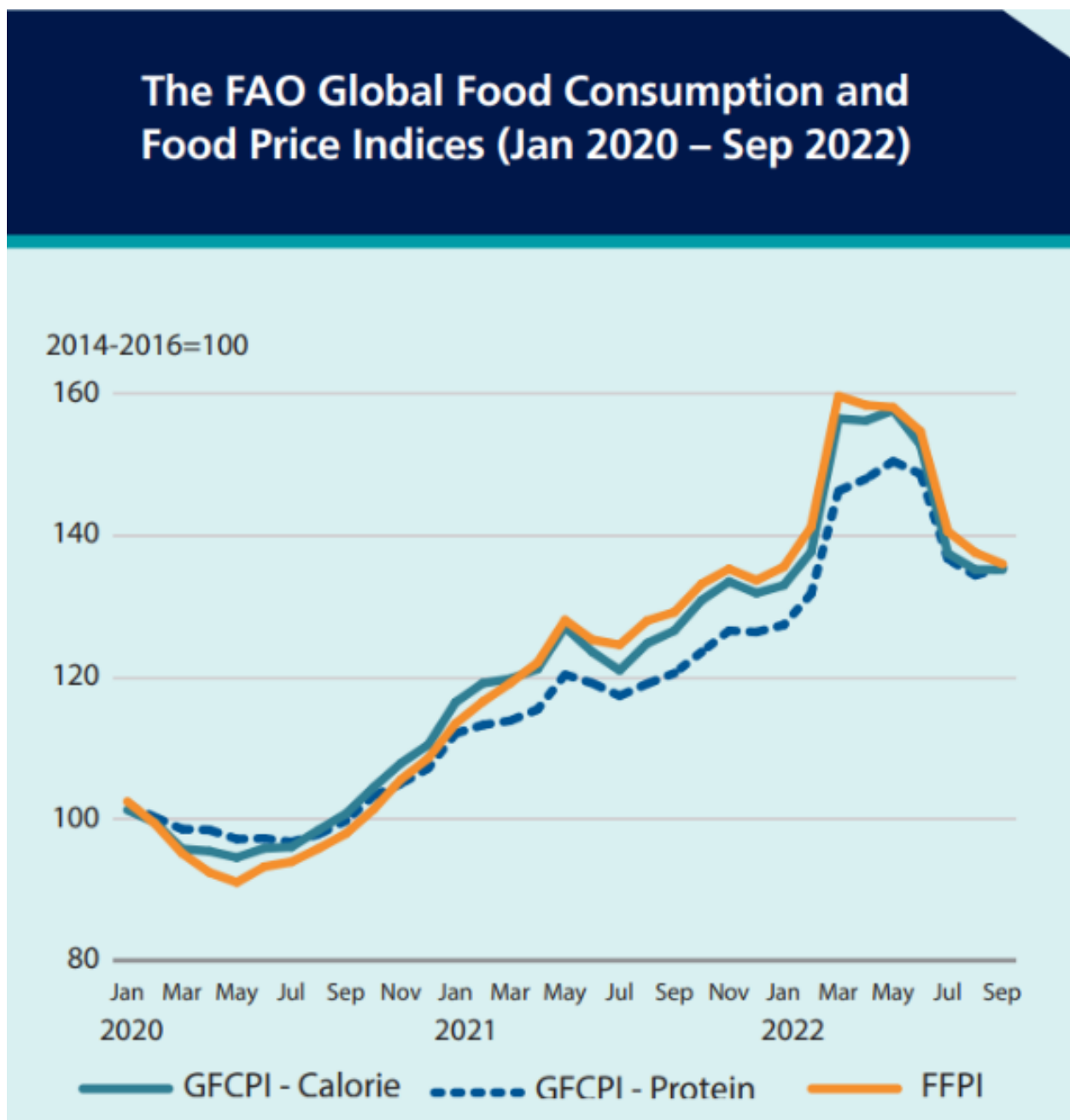
Despite the predicted growth opportunities in the region, there are some market access issues that might cause trouble for the retailers. The main ones that the retailers should be ready for include the rise in the input cost, monopolistic environment by big retailing companies, and unregulated imports creating issues for local businesses.

Since 2017, we have seen a growing trend in F&B grocery market in the UAE; however, still the manufacturers and the suppliers in the Food & Beverage sector have been running in loss. This has led to a decrease in investment and innovation in the sector, causing hinderances in industry growth.

Global Price Analysis

Food and Agriculture Organization (FAO) Price Indices

The FAO Global Food Consumption Price Indices (FGFCPIs) is used to track changes in the price of basket of food commodities on a monthly basis. The calculation is based on several measures; Food Price Index (FPI), Calorie-based FGFCPI, protein-based FGFCPI, FAO Cereal Price Index, FAO Vegetable Oil Price Index, FAO Dairy Price Index, FAO Meat Price Index, and FAO Sugar Price Index.



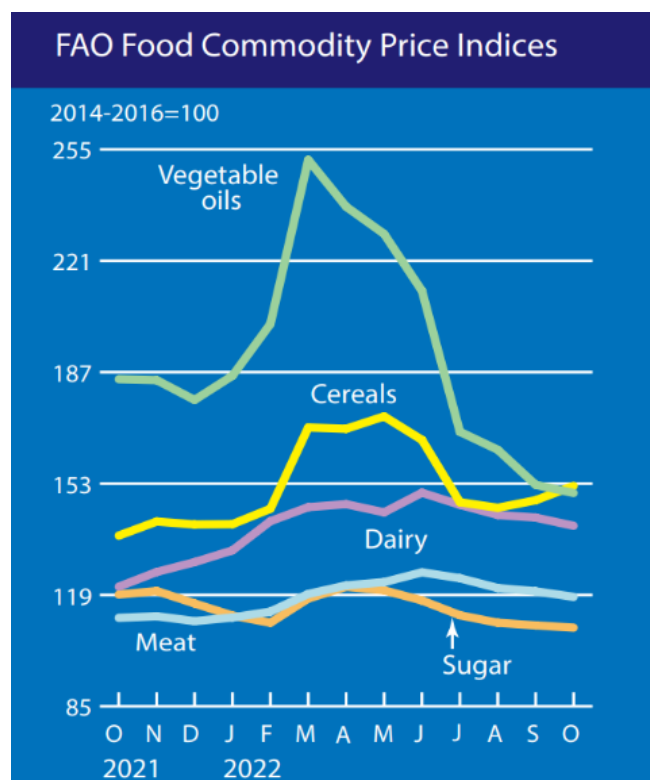
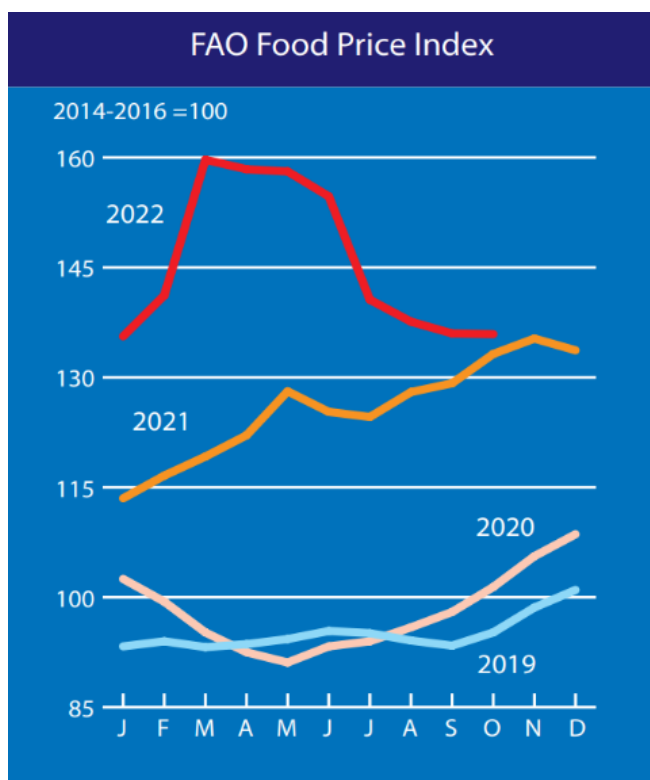
Calorie-based Index

In September of last year, the Calorie-based FGFCPI reached 135.2 points on the index, which was a slight fall from its value at the beginning of the year. This decline was due to the increase in the prices of wheat and vegetable oils. However, despite the decline, the number is still higher than in comparison to previous years because of high prices of grain and vegetable oil.

The Protein-based FGFCPI followed the footsteps of calorie-based value and dropped down to 135.5, which happened as a result of large decline in grain, oilseed, and fish prices.

Food Price Index (FFPI)

In October 2022, the FAO Food Price Index (FFPI) remained virtually unchanged from the previous month. The Cereal Price Index was the only group to have an increase, while the indices for vegetable oils, dairy, meat and sugar decreased. Since March of the same year, the FFPI decreased by 14.9%, but was still 2.7% higher than in October 2021.



Cereal Price Index

In October, the FAO Cereal Price Index increased 4.4 points (3.0%) compared to September, and 15.2 points (11.1%) higher than a year ago. Prices of all major cereals rose, with wheat prices increasing 3.2% due to uncertainties of the Black Sea Grain Initiative and lower production prospects in the US and EU.

Coarse grain prices increased 3.5%, led by a 4.3% increase in maize prices due to reduced production in the US and EU. Sorghum prices increased 3.0% due to the strength in maize prices, while barley prices rose 0.3% due to higher global supplies. Rice prices remained on an uptrend, but the monthly price increase was limited to 1.0%.



Vegetable Oil Price Index

In October, the FAO Vegetable Oil Price Index decreased by 1.6%, standing nearly 20% lower than its year-earlier level. The decline was caused by lower palm, soy, and rapeseed oil prices, which more than offset rising sunflower oil prices. Palm oil prices were lowered due to high stock levels in Southeast Asia, while soy and rapeseed prices dropped due to expectations of ample supplies. Conversely, sunflower oil prices rose due to uncertainty over the future of the export corridor in Ukraine.

Dairy Price Index

In October, international prices of all dairy products covered by the FAO Dairy Price Index fell by 1.7%, marking the fourth consecutive monthly decline. The main contributors to this drop were lower-than-expected purchases by China and lackluster demand for spot supplies, as well as the weakening Euro against the US dollar. Despite this, demand for some dairy products in other countries in Asia increased and avoided further declines in dairy prices. Nevertheless, the index remained 15.4% higher than a year ago.

Meat Price Index

The FAO Meat Price Index decreased for the fourth consecutive month in October, with all types of meat registering drops, mainly due to currency movements, seasonally increasing supplies, weak global import purchases, and high current supplies. Ovine meat prices dropped the most, while bovine, pig, and poultry meat prices also fell, due to reduced demand and production expansions hindered by high feed costs and avian flu outbreaks. However, the index was still 5.8 percent higher than the previous year.

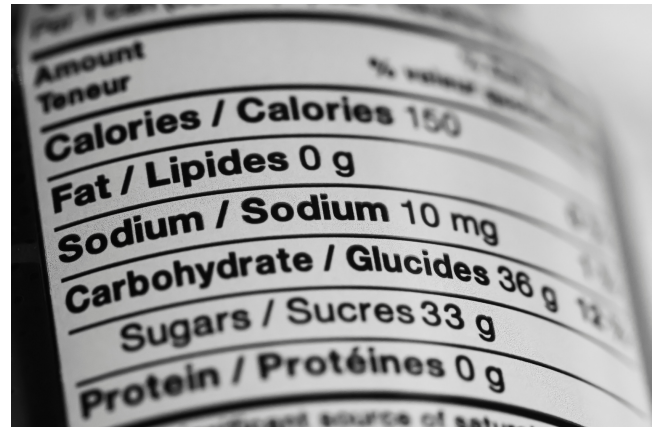
Sugar Price Index

In October, the FAO Sugar Price Index decreased by 0.7 points (0.6 percent) from September, and 10.1 points (8.5 percent) from the same month in the previous year. The positive global supply outlook, along with improved production prospects in India, were the main causes of the decrease in sugar prices. Despite this, the sugar prices were kept from dropping further due to increased import demand from Indonesia and China, as well as higher ethanol price quotes in Brazil, which led to a greater use of sugarcane for ethanol production.

Trends Driving Food & Beverages in 2023

Clean Label & Sustainable Package

Clean label products are one of the most expected influential trends in the industry since people are now becoming more aware of eating clean and healthily. Food products with no additives, preservatives, enhanced flavors, or dyed food will not be a trend that the industry will be focusing on, in response to the changing consumer pattern.



Functional Beverages

Functional beverages are another trend that can take over the industry in the coming years, as people are looking for more specialized formulas to keep their bodies hydrated and maintain nutritional balance. As a result, many food companies are introducing functional drinks, like juices that offer water balance, weight management, and other health benefits.



Plant-Based Food

As people are becoming more health conscience, plant-based food and beverages are also becoming a vital trend in the industry. This market is expected to grow at a CAGR of 9.28% in the next few years. The growing market for this trend includes Europe, North America, South America, Asia Pacific, and East and Middle Africa.



Socio-economic trends that impact food system

It's no surprise that 2023 will come with various challenges; and even the food and beverage industry is not immune to it. The climate stress, social, and health problems are causing national populations to be more concerned about the food origin, its production method, and the environmental impact.

The popularity of circular economy

The circular economy is a way of thinking about the food industry that takes into account the environmental impacts of production, repurposing of products and packaging, and recycling. This involves a broad set of stakeholders, from producers to retailers, and encourages them to consider the entire food system.

Focus on National Food Security Strategies

Government-led food security strategies are influencing trends in food production and supply chains by determining the size of strategic reserves and land acquisition strategies. These strategies set the amount of food produced locally and the amount of food that needs to be imported, as well as the composition of food produced locally.

Trade War Warnings

As trade tensions rise between the US, China, Canada, and the EU, the importance of alliances and regional-based trade agreements is growing. Tariff wars are having a disruptive effect on the food sector, which is heavily dependent on trade. China has found alternate suppliers for soybeans, beef, and cotton, previously imported from the US.

Trend of sustainability targets on national and corporate level

Companies, governments, and NGOs are setting ambitious performance targets to promote sustainability. Food companies will be held accountable for their actions, which will impact how food is produced and distributed. Agriculture is a major contributor to global greenhouse gas emissions, making it an integral part of sustainability efforts.

Developing sustainable capital

The UN Environment Program is working on a framework to account for externalities in food production in order to create a more accurate pricing system. This includes valuing natural capital such as water and biodiversity in order to measure and disclose environmental impact and climate risk.

Increasing corporate involvement in food sector

In the early 2000s, two companies had a large control over the global banana trade, but recently, seed, fertilizer, and chemical companies have been merging and creating a monopoly in the grocery sector. These actions are driven by economic reasons, as the food system needs capital and research and development. However, the implications of this trend have led to questions of who owns the intellectual property created and if consumer health and safety is being prioritized over profits. New competition from discounters and online retailers could disrupt this trend.

Scientific-technological trends that impact food system

These concerns are shaping the food industry trends along with the current economic condition. In the section below, we'll be covering some of the major scientific and technological factors that are most likely to rule the industry in coming years.

The farmers and food companies continue to strive and look for better ways for food production. After the 4th industrial revolution, these are some of the emerging trends related to technological advancement that will lead the agri-food economy in the coming years.

Technology-enabled food production

AI, robotics, and data management are some of the most significant developments in food production. These technologies allow for precision agriculture, enabling better management of plant and animal health, water and nutrient needs, soil health, and weeds. Research from Cornell University has shown how AI can detect certain diseases with 98% accuracy.

Use of Climate-Resilient Crops

The International Center for Tropical Agriculture (CIAT) projects that climate change will cause crop yields to decrease by more than 10% by 2030, and more than half of crops will experience a similar decline beyond 2050. Additionally, research suggests that rising CO₂ levels are leading to a decrease in important nutrients like iron, zinc and protein in staple crops like rice and wheat.

Controlled Systems for Food Production

Controlled systems such as hydroponics, aquaponics, and aquaculture farming are becoming increasingly popular due to the potential for higher yields with fewer resources, including labor, land, chemicals, and water.

Regenerative Agriculture to Control Carbon

Regenerative agriculture is an approach to farming that focuses on using natural processes to increase soil health and carbon content. This is achieved by reducing or eliminating the use of industrial chemicals and fertilizers, and by employing practices such as crop rotation, composting and animal manure. These practices help to increase soil biota diversity, build deeper plant root systems, and retain water. Ultimately, this helps to ensure that carbon is essential to agriculture.

Minimizing the use of antimicrobials for food-producing animals

Anti-Microbial Resistance (AMR) is a major global public health threat, increasing the difficulty of treating diseases like HIV, malaria, and tuberculosis. To combat this, there is a need for better stewardship of antibiotics in livestock and aquaculture, as misuse is a major factor in the emergence of AMR. The WHO has called for increased scrutiny of food system practices to address this issue.

Supply Chain Transparency with IoT and clean labels

Food producers, processors, and distributors are responding to consumer demand for greater transparency by introducing new product labeling initiatives such as smart labels, microscopic electronic devices, and genetic markers. Barilla, an Italian food company, is using smart labels to allow consumers to track an item's journey from farm to store shelf by scanning its QR code with a mobile phone.

alsharqi 