

## **Food industry in Algeria and its Contribution in the national economy**

BOUDIAF Ilyes\*

*lecturer A, Abdelhamid Mehri Univesity, Constantine 2 (Algeria)*

*STAR Marketing laboratory*

Send Article Date: 2022-07-19

Date of acceptance of the article: 2022-10-29

\*\*\*\*\*

### **Abstract:**

The study aims to shed light on the contribution of the Algerian food industries in different indicators of the national economy. Based on the descriptive approach through the presentation of tables and evidence that illustrate this contribution, where we concluded that the food industries in Algeria are gaining great importance, as the development of this industry requires the establishment of large institutions that operate according to international metrics and standards and possess the necessary capital to produce products capable of competing with the importer. The development of this industry helps to provide wide job opportunities and helps to overcome the special problems related to reducing the food deficit balance and the trade balance of payments for this sector.

**key words:** Food industries; food commodities; Value-added; employment; trade balance;

### **I. Introduction**

The new technology that will support the food industry should be modernized so that it is lithe, simple to adjust to the minor changes in the market continuously, centered on exacting,

---

\* Corresponding Author. BOUDIAF Ilyes

sustainable cleaning and should be dealt with by staff and profoundly prepared architects, particularly in the event that it comes to biotechnology. From a technological viewpoint, that converts into quicker perusing times for vision hardware, self-finding for preventive support, and greater connectivity and interoperability between frameworks, food safety, discernibility and realness.

The bioengineering represents to a significant motivation for the production of food bio-products and fixings with and critical bit of advantage in the high nutritional quality of new practical and intelligent foods, advancing the supportability of the conventional and arising food technologies.

Companies are additionally searching for the Industrial Internet of Things (IIoT) and data collection to better manage production schedules, resources, labor, and maintenance. With a developing and requesting populace, it is a test to work on the correct scale a significant number of the procedures and instruments that will be capital-intensive arrangements, including, in a strategy, the cooperation of human capital in the advancement of its capacity technological or financial capital to give a proficient food experience to every one of the communities it serves.

The radical changes of economic structure that the Algerian economy experiencing in its transformation from oriented economy to the market economy. Under the accelerating movement of the global economic environment, and the profound challenges it poses the inevitable adaptation that makes a necessity to ensure survival and continuity. In accordance with the preparation of economic plans and strategies based on a forward-looking vision of the future on a scientific and systematic basis . Based on the valuation of local resources and strengthen the capacities and qualifications of the Algerian economy, leading to the creating, encouraging and preparing a business climate for investment and supportive of the entrepreneurial spirit. This gives the economy a competitive advantages and features in light of global developments.

In light of the inevitability of global economies linking with each other, the impact of globalization's reflections and the new challenges. Due to hopes this sector in achieving the qualitative leap of the national economy. In light of the foregoing the study problematic could be reflected in the following fundamental question:

**To what extent do the food industries contribute to the Algerian national economy, and what are the most important economic indicators that show this?**

### **The study importance**

The new challenges imposed on the national economy made it difficult to achieve adaptation with the developments of the global economy, in light of the increasing efforts to strengthen the partnership with the euro area and the World Trade Organization and what may be gained from it, especially related to the food branches activities that make up the national industrial structure, which are forced by circumstances and the necessity of good preparation to face various risks, with the enhancement of the investment activity of food industries in the Algerian economy, due to its effective ability to drive development. As a branch sensitive to the economic changes taking place in the global economy, and linked to food security.

### **Objectives:**

Most studies related to the national economy have agreed on the necessity to diversify the sources of national income, away from the heavy focus on the hydrocarbon sector that is destined for disappearance, and directing more attention to encouraging the food industry sector in all its branches in light of the availability of a diverse agricultural base, we aim through this paper to clarify the food industry's contribution to the Algerian national economy by presenting its most important indicators.

### **Methodology:**

We rely mainly on the descriptive approach, which depends on a statistical description of the indicators of the study, in order to determine their features and contribution, by displaying the

tables that represent the development of this sector and its contribution to the national economy indicators.

## II. Literature review:

### II.1. Strategic sustainability trend:

Strategic Sustainability Orientation is characterized by (Pagel & Wu, 2009, p. 38) as the dynamic and submitted decision-making of an association and its entire supply chain about the economic, social and environmental issues. (Pagel & Wu, 2009, p. 39) presented four aspects of Strategic Sustainability Orientation to clarify this idea; (a) accomplishing economic, social and environmental objectives, (b) sustainable attitude towards assets that ought to be viable with social and environmental objectives, (c) the idea of sustainability should exist in all the talks, rehearses, and organizational decisions, (d) sustainability values and beliefs that must be executed in a cutting edge path in the business model of company, and (e) basic react of the companies to the environment all over the supply chain, which means, the issue of sustainability is applicable to all individuals from the association, not a specific association or some portion of its supply chain.

**Table n° 1: Strategic sustainability trend**

Concept	Definition	Recourse
<b>External drivers</b>	There are drivers affecting the association from the external environment and the company ought to react to these drivers, thinking about the circumstance	(Zsidisin, Melnyk, & Ragatz, 2004, p. 3402), (Ketokivi & Roger, 2004, p. 64), (DiMaggio & Powell, 1983, p. 148), (Teo, Wei, & Benbasat, 2003, p. 20), (Perez-Batres, Miller, & Pisani, 2011, p. 844) and
<b>Mimetic pressures</b>	The requests that emerge when principle competitors effectively receive sustainability activities	(Liu, Ke, Wei, Gu, & Chen, 2010, p. 373)
<b>Coercive pressures</b>	Sustainability-related political impacts applied by governmental guidelines and/or then again firms on which	

	the central firm depends, for example, significant clients and a parent organization	
<b>Normative pressures</b>	The requests that originate from aggregate societal assumptions, for example, significant suppliers, local communities, and NGOs as to sustainability	
<b>Internal drivers</b>	There are drivers in the internal environment of the association dependent on which the association moves towards sustainability	(Clifford Defee, Esper, & Mollenkopf, 2009, p. 88), (McFadden, Henagan, & Gowen, 2009, p. 392), (Reed, 2002, p. 385), (Aragon-Correa & Sharma, 2003, p. 72), (Chen & Paulraj, 2004, p. 120), (Daily & Huang, 2001, p. 1540) and (Reed, 2002, p. 385)
<b>Managerial attitude</b>	The demeanor of supervisors to the issue of maintainability that can be positive or negative	
<b>Top management support</b>	Backing of the senior management of the sustainability exercises of the association	
<b>Employee motivation</b>	Inspiration of representatives to take an interest in sustainability activities of the association	

By the researcher based on the mentioned sources

Strategic sustainability orientation clarifies how sustainability issues are worked and controlled at the association. These directions are examined in economic, social and environmental zones (Baumgartner & Rauter, Strategic perspectives of corporate sustainability management to develop a sustainable organization, 2017, p. 82), (Baumgartner, Nachhaltigkeitsorientierte Unternehmensführung : Modell, Strategien und Managementinstrumente, 2010) present economic orientation of strategic sustainability as a push to advance innovation and technology in the company, so they can create clean products that are viable with environmental conditions. Additionally, they think

about factors, for example, knowledge management, collaboration during the time-spent sustainability, cooperation in distributing sustainability reports as a feature of economic strategies of sustainability.

By and large, sustainable economic orientation incorporates a functioning commitment of an organization to consider sustainability issues in financial decisions and market. These choices can identify with creation and the best approach to utilize assets underway of the items (Kroes & Ghosh, 2010, p. 126). (Baumgartner, *Nachhaltigkeitsorientierte Unternehmensführung : Modell, Strategien und Managementinstrumente*, 2010) Believes that sustainable social orientation comprises of inside and outer social orientation. He characterizes internal strategies as staff safety, rules of the company, and representative support in decision-making, organizational justice, and the protection of customer information. External strategies remember support of companies for social and cultural projects, reacting to the privileges customers and society, giving the right information to customers and addressing the necessities of the public.

### **II.2. Food industries: Strategies for the development**

The bioengineering tools and strategies could be of promising effect on the advancement of the food industry. Without a doubt, the food industry is going through a dynamic process of change in its ceaseless advancement to meet the prerequisites and take care of the incredible issues spoke to by a continually developing worldwide populace and food claimant in both quantity and quality. In this sense, it is important to assess the technological trends and advances that will change the scene of the food processing industry, featuring the most recent prerequisites for gear usefulness.

### **II.3. Food safety standard: Importance of implementing**

The development of the populace worldwide and familiarity with cleanliness of food production has risen and are constraining public and private sector to rehearse clean food production. This is the place where the food safety standard assumes their jobs all together for the food industrial to comply with the principles. Shoppers worry on the quality and safety of food happens from the disease increase detailed each year. World Health Organization (WHO , 2020) reported that over 90% of human exposure is through food, primarily meat and dairy products, fish and shellfish. In addition, examines led by Hartman (2005) demonstrated that purchasers worry for the safety food; particularly in animal proteins are high. This investigation is accordingly towards the frantic cow diseases, followed intently via seafood,, poultry and other meat concerns.

### **II.4. Issue of developing countries**

(Henson & Loader, Barriers to Agricultural Exports from Developing Countries: The Role of Sanitary and Phytosanitary Requirements, 2001, p. 86) has uncovered that obsolete laws, absence of information in sharing - restricted coordination between organizations handling food safety issues; incorporates subsidizing of public examination establishments and the absence of mindfulness for standards and quality may influence developing countries come up short on the assets to viably partake in global exchange. World Health Organization (2007) reported that food safety enactment in many developing countries isn't in accordance with global prerequisite. As developing countries contributes 50% agricultural exporters (Henson & Jaffee, Food Safety Standards and Trade: Enhancing Competitiveness and Avoiding Exclusion of Developing Countries, 2006).

The difficulties that has been recognized is item advertises are represented by price and quality grades. To help the creator discoveries, (Nugroho, 2014, p. 426) detailed that provokes faces by Indonesia's espressos trade worldwide is to fulfill quality standard which caused a few instances of fare dismissal. Also, one

the commitment dismissal is absence of help from Indonesia government to protect the economic deal. A few investigations concurred that market for high-esteem farming and food products are driven by quality-based. Issue addresses on food quality and sterile and phytosanitary (SPS), which developing countries can't follow is absence of proactivity in food safety criteria. (Lamuka, 2014, p. 20) focused on that the explanation given by international standard are not in logically based but rather more to preclude the developing countries to contend globally. The circumstance has been outlined on account of Kenya and India back in nineties from entering EU market, including fish products.

An examination led by (Athukorala & Jayasuriya, 2003) arrived at an alternate methodology, which is principles regularly a lot higher than those current in agricultural nations, and regularly troublesome and expensive to meet, however they are likewise liable to visit changes. Changes are brought about by scientific knowledge about health dangers, upgrades in food handling innovation and exceptionally pay versatile buyer inclinations for higher safety standards. Instances of the food borne' illnesses, where scientific technologies able to defeat in recognizing the new peril, are added to tough food safety necessity (Henson & Jaffee, Food Safety Standards and Trade: Enhancing Competitiveness and Avoiding Exclusion of Developing Countries, 2006, p. 594). Additional proof on indicating cost matter is private acceptable rural practices affirmation, known as Global GAP is accused of significant expenses for important investments and certification, and it is hard for low pay makers particularly in worldwide south (Amekawa, 2013, p. 190).

### **III. Results and discussion:**

In this stage we are going to present the Food industries in Algeria: progression and development. When the food industry is a vital branch that plays an important role in the development of



the national economy. It is characterized by an enormous fabric of institutions in all the constituent activities of the branch. This industry is gaining increasing importance and growth in most countries of the world. Its importance can be explained through the following points: The contribution of the food industry sector to foreign trade in Algeria.

### III.1. Raw internal production index

This indicator expresses the sum of the added values of all production units operating in the different branches of production in a particular economy, such as agriculture and industry. The internal raw production is among the indicators relied upon to know the importance and contribution of a sector or branch to the development of the national economy. The following table shows the development of the gross domestic product of the food industry branch in Algeria during the period 2015-2018 and the percentage of this industry from the gross domestic product.

**Table n°2: The development of the food industry branch GDP  
In Algeria during the period 2015-2018**

**Unit: hundred million DZD**

<b>Years</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
<b>The gross domestic product of the food industries sector</b>	3560	3816	4075	4334
<b>Gross domestic product</b>	167127	175146	185758	202590
<b>Ratio of food industry GDP to total GDP</b>	2,13%	2,18%	2,19%	2,14%

Source: (ONS, 2015-2018, p. 9)

The statistics in the above table show that the contribution of the food industry sector to the GDP increases over the time. This increase is due to the contribution of the private sector, where the big difference in the proportion of the contribution between the public and private sector in favor of the private sector appears with a very large difference. Contribution of the private sector ranges between 82 and 84% in industrial GDP outside the hydrocarbon sector. While the public sector's contribution did not exceed 17.74%, and this was in 2008.

For the contribution of the food industries sector to the gross domestic product of the whole industrial sector. Statistics for the period between 2015-2018 showed a weakness in the contribution compared to other industrial sectors. Where the contribution ranged between 2.13% in 2015 and 2.19% in 2017, where it reached its peak, and then decreased again in 2018, with a contribution rate of 2.14%.

### III.2. Value-added index

The contribution of the food industry to the added value has witnessed a remarkable development over the years. However, this contribution remains very low in view of the capabilities that Algeria has in this field, whether in terms of availability of raw materials, industrial bases and structures, as well as channels for the disposal and distribution of food products due to the increase in domestic and foreign demand.

The low contribution of this sector to the total added value is due to the hydrocarbons sector's dominance over these aggregates on the one hand. As well as the public administration services sector, the services sector outside the public administration, as well as the rest of the other sectors outside of hydrocarbons. In 2016, the food industry sector had a prominent contribution to improving the development of the wealth of industrial activity in general, in terms of contributing to the added value of approximately 3%, as shown in the following table:

**Table n°3: The contribution of food industries to achieving added value  
In the Algerian economy 2012-2018**

**Unit: hundred billion DZD**

Statement	2012	2013	2014	2015	2016	2017	2018
Total added value	124.8	128.5	132.4	124.5	130.6	140.7	157.5
Added value outside hydrocarbons	69.4	78.8	85.9	93.2	100.4	104.1	105.0
The contribution of the food industry	2,1	2,2	2,4	2,8	2,9	2,9	2,8

branch to the added value%							
Contribution of the food industry to achieving added value of total value added generated in industry %	36.4	36.9	38.8	38.7	38.9	39	38.4

**Source:** (SME, 2012-2018)

The statistics in the above table show that the contribution of the food industry sector to the added value increases over the years, and this is due to the increase in the contribution of other sectors, with fast increases, similar to the industry. For the contribution of food industries to the total added value of the whole industrial sector. Statistics have shown a very weak contribution compared to the other industrial sectors, Also, the contribution rate in the industry did not significant of development during the period between 2012 and 2018, as it ranged between 36.4% in 2012 and only 38.4% in 2018, i.e. a very small growth rate.

### **III.3.Food industry: Contribution in employment**

The food industry sector is one of the most important branches of industrial production in Algeria, which contributes to reducing unemployment and creating jobs. As the employment rate in the sector witnessed an improvement in recent years. In view of the lack of statistics on employment rates in private establishments for food industries, we had to rely on the public sector only, and we were able to develop the employment development in the food industry institutions belonging to this sector during the period between 2010-2017, as shown in the following table:

**Table n°4: The development of the employment rate according to the branches of The industrial sector outside the hydrocarbon**

<b>Employment Rate (%)</b>
----------------------------

Years	2011	2012	2013	2014	2015	2016	2017
Mechanical and electrical industry, steel and metals	33,2	34,7	37,0	40,4	41,1	40,8	40,1
Building materials	13,1	13,1	13,0	12,2	12,5	13,0	13,3
Pharmaceutical drugs and medicine	7,5	7,4	6,9	6,2	6,0	6,0	6,0
Food Industry	19,0	19,8	19,1	18,5	18,4	17,7	18,4
Weaving	10,6	7,4	7,1	6,6	6,3	6,6	6,6
Firewood and paper	8,8	9,5	8,9	8,2	7,9	7,6	7,3
Leather and footwear industries	1,4	1,6	1,5	1,5	1,4	1,4	1,4
Other industries	6,4	6,7	6,5	6,4	6,4	6,9	6,9

Source: (ONS, 2011-2017, p. 42)

Through the table, we note that the food industry branch ranked second after the mechanical and electrical industries, steel and metals, in terms of its creation of job positions in contrast to a decrease in the employment rates for the rest of the industrial branches. This is due, according to our belief, to the state's encouragement to investment in this branch of the industrial sector; through establish the private small and medium enterprises that are active in the food industry sector.

For the development of the employment rate of the food industry branch, the period 2011-2017 witnessed fluctuations; when we recorded at the beginning of the period an increase in the number of jobs with 19,169 jobs, equivalent to 18.8% of the total jobs in the whole industrial sector, the number reached 19486 jobs in 2011 which is 19.8% of the total jobs in the industrial sector, The increase in the number of jobs in the sector continued until 2012, when it reached a peak of 19,854 jobs, equivalent to 19.8%, an increase of 3.6% compared to 2011.

This increase did not last for long, as the employment rate decreased, and this decline continued until 2016, when it reached 18,382 jobs, equivalent to 17.7% of the total jobs in the sector in 2013 and it reached 19,851 jobs, or 19.1% of the total job.7%. That is, a loss of about

1,472 jobs compared to 2012. The employment rate increased again in 2017, with an increase of 549 jobs compared to the year 2016, when the number of workers reached 18931, which is 18.4% of the total jobs in the industrial sector.

**III.4. Evolution of the value of food commodities imports for the period 2012-2018**

Evolution of the value of food commodities imports for the period 2012-2018 witnessed a fluctuation in the value of food exports, as their value rose at the beginning of the period from 315 million dollars in 2012 to 402 million dollars in 2013, where it reached its peak, then decreased and reached its lowest value in 2015 at \$ 235 million, then it rose again. and continue to increase until the year 2018 amounting to 373 million dollars.

For the ratio of food exports of the total exports, ratios recorded very low, ranging from 0.44% in 2012 and 0.91% in 2018, reflecting the weakness of food exports and control of hydrocarbon exports, and expresses the fragility of the national economy, and the weakness of productive sectors in spite of all government support provided for the benefit of exporters procedures, and their benefit from tax and customs exemptions.

**Table n°5: Evolution of the value of food commodities imports for the period 2012-2018**

**Unit: Billion dollars**

<b>Years</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Food imports	9022	9580	1100 5	9316	8223	8438	8573
Total imports	5037 6	5502 8	5858 0	5170 2	4708 9	4605 9	4619 7
Ratio of total imports	17.9 %	17.4 %	18.8 %	18.0 %	17.4 %	18.3 %	18.5 %

**Source:** ( General Directorate of Customs, 2012-2018)

We note from the previous table that food imports in Algeria during the period 2012-2018 witnessed a fluctuating movement. As it increased from 2012 to 2014 that is from \$ 9,022 million to

\$ 1,1005 million, and then decreased in the years 2015 and 2016 due to austerity measures and reducing imports. The government worked to put in place an import licensing system to control the large flow of imports. Add to that the devaluation of the currency and its effects. To rise again in 2017 and 2018. As for the ratio of food imports out of total imports during the whole period, it was recorded between 17.91% in 2012 and 18.56% in 2018. This reflects the existence of a food problem in Algeria and evidence that the food industry sector is still unable to meet the growing local demand. Algeria is far from provide and cover its needs of food, even the necessary ones, which it is supposed to be able to provide by referring to its capabilities at all levels.

The results reflect well the extent of the national market's dependence on imports of food commodities, despite the state's intervention in recent years to confront this situation and set up programs and strategies aimed at developing the food industry sector, And urging and stimulating investment in it and reducing the rate of imports. However, Algeria is still dependent on foreign commodities to achieve food security and cover the needs of the national market, which makes it completely dependent on oil in ensuring its food.

### **III.5. Evolution of the export value of food commodities for the period 2012-2018**

Evolution of the export value of food commodities for the period 2012-2018 The hydrocarbons sector accounted for the largest part of Algeria's exports abroad, with a share of 93.13% of total exports in 2018, an increase of 15.26% over the year 2017. As for Algerian exports outside the hydrocarbons sector, they remain marginal, with only 6.87% of the total volume of exports. As for the food industry sector, it constitutes a very small ratio of total exports, as shown in the following table:

**Table n°6: The evolution of exports of food commodities during the period 2012-2018**

**Unit: million USD**

Years	2012	2013	2014	2015	2016	2017	2018
Food exports	315	402	323	235	327	349	373
Total exports	71866	65917	62886	34668	30026	35191	41168
Ratio of total exports	%0.44	%0.61	%0.51	%0.68	%1.09	%0.99	%0.91

Source: ( General Directorate of Customs, 2012-2018)

The period between 2012-2018 witnessed a fluctuation in the value of food exports, as their value rose at the beginning of the period from 315 million dollars in 2012 to 402 million dollars in 2013, when they reached their peak. Then it decreased and reached its lowest value in 2015 at 235 million \$, then it rose again, and the increase will continue until 2018, reaching \$ 373 million.

As for the ratio of food exports to total exports during the entire period, very small ratio were recorded, ranging between 0.44% in 2012 and 0.91% in 2018. This confirms the weakness of food exports and the control of hydrocarbon exports, and expresses the fragility of the national economy and the weakness of its productive sectors, which failed to reach \$ 3 billion in exports, despite all the governmental support measures provided to exporters, and their benefit from tax and customs exemptions.

The total fluctuation of exports is due to fluctuations in oil prices, especially in the recent period, and this reduces the country's resources more and more. The increase in the value of some exports of food commodities is only an accounting increase due to the decline in oil prices. And it may be a very slight increase due to the policies undertaken by Algeria to promote exports outside of hydrocarbons, which remain only efforts that have not received any results on the reality, and this is what we see results through the erosion of exchange reserves.

### **III.6. The trade balance in food commodities**

Investing in the food industries sector with the aim of diversifying exports outside of hydrocarbons is one of the most effective investments because its success is linked to the global

demand for processed food, which is constantly increasing due to the growing population and the diversity of individuals' food desires and needs. Especially since Algeria ranks among first countries in the world in terms of consumption of basic materials, as it is one of the largest consumers of grains in the world, as global production of wheat covers 60% to 70% of the needs of the Algerian industry. The continuous of growth in the value of food imports, in contrast to the continuous of decline in exports of food commodities, would cause a continuous deficit in the trade balance. And this is what we observe through the following table and figure:

**Table n°7: The trade balance of food commodities for Algeria during 2017-2018**

**Unit: million**

**USD**

Food products	2017			2018		
	DZD	USD	Ratio	DZD	USD	Ratio
<b>Imported</b>	936 428	8438	18.32	999 795	8573	18.56
<b>Exported</b>	38 728	349	0,99	43 477	373	0.91
<b>Registered deficit</b>	-897700	-8089		-956318	-8200	

**Source:** ( Directorate General of Customs, 2017-2018, p. 15)

From the results of the table we observe the recording of a large deficit in the trade balance, as the value of the deficit in the balance reached (897700) million DZD in 2017, increasing its value to (956318) million DZD in 2018.

This large deficit recorded in the trade balance is due to the weak value of exports versus the large increase in the value of imports. This is due to Algeria's dependence since 1962 on the strategy of manufacturing industries and its neglect of the agricultural sector, which led to the acquisition of hydrocarbons a significant proportion of the value of exports at the expense of other sectors, including the food industry. This would make Algeria in constant dependence on global markets, exposing the



country in terms of food security to danger at any moment in light of the fluctuations and transformations in the global economy.

Consequently, it became necessary to draw up a new strategy that would be able to amend the structure of Algeria's foreign trade. To get out of dependency on global oil markets, which's rapid and violent fluctuations remain the biggest threat to the stability of the national economy.

#### **IV. CONCLUSION**

Most studies on the national economy, have agreed on the necessity to diversify sources of national income, away from excessive focus on hydrocarbons. The hydrocarbon sector heading towards extinction, and directing more attention to encouraging the food industry sector in all its branches in light of the availability of a diverse agricultural base. There is no doubt that the conflict on the economic summit with the beginning of entering the third millennium, and obviously change in the markets rules at the local and international level.

The obligation to remain in the market is conditional on whoever can reach it faster and better, who has better institutional organization than others, and other fast of developments related to the decline in oil prices. Rather, it requires politicians and economists in Algeria to build and develop the Algerian economy on foundations, rules, and directions compatible with the requirements of global competitiveness at the present time and in the future.

#### **Findings:**

- The development of these food industries helps to create wide job opportunities. It also helps to overcome special problems related to reducing the balance of food deficit and the balance of trade payments for this sector;

- The food industry is gaining continuous importance, and the development of this industry requires the establishment of large institutions that operate in accordance with international standards and measurement and possess the necessary capital to produce varieties that are competitive with the importer from abroad, as well as research and development efforts.
- The Constraints that have accompanied the Algerian agricultural sector since independence until now are the same, rather, there are Constraints that have become more severe, such as natural factors, and others that have emerged as a result of the absence of sound development policies and plans.
- The food industry in Algeria suffers from a lack of supplies and the main inputs in the manufacturing process for any of its products. The cereals, sugar and oils industry for example are still dominated by foreign markets in terms of prices and quantity.
- The added value of the Algerian food industries is low; this is due to the nature of industries based on importing direct raw materials.

-

### **Recommendations**

- Economic exploitation of food processing waste, which can be used in most cases in establishing units for the fodder production, which helps in developing animal production;
- Encouraging and supporting the establishment of scientific research centers to keep pace with technological progress,

- whether by the state or in partnership with industrial projects specialized in food industries;
- Encouraging local and foreign capitals to invest in setting up food factories, While giving greater incentives in this field to those with expertise in foreign food industries, in order to reduce competition between the local and imported food industries;
  - Establishing a sectoral strategy to strengthen forward and backward integration in the field of food industries, especially between basic and support industries such as packaging, transportation and distribution;
  - Supporting individuals and investors to establish institutions for the food industry, by providing financial support to those coming to this sector, in addition to providing the appropriate legal environment for the activity of this type of institutions.

**V. Bibliography List :**

- Amekawa, Y. (2013). Can a public GAP approach ensure safety and fairness? A comparative study of Q-GAP in Thailand. *40(1)*, pp. 189-217. doi:10.1080/03066150.2012.746958
- Aragon-Correa, J. A., & Sharma, S. (2003). A Contingent Resource-Based View of Proactive Environmental Strategy. *The Academy of Management Review*, *28(1)*, pp. 71–88. doi:10.2307/30040690

- Athukorala, P.-C., & Jayasuriya, S. (2003). Food safety issues, trade and WTO rules: a developing country perspective. *World Economy*, 26(9), pp. 1395-1416. doi:10.1046/j.1467-9701.2003.00576.x
- Athukorala, P.-c., & Jayasuriya, S. K. (2003). Food Safety Issues, Trade and WTO Rules: A Developing Country Perspective. *World Economy*, 26(9), pp. 1395-1416. doi:10.1046/j.1467-9701.2003.00576.x
- Baumgartner, R. J. (2010). *Nachhaltigkeitsorientierte Unternehmensführung : Modell, Strategien und Managementinstrumente*. German: Hampp.
- Baumgartner, R. J., & Rauter, R. (2017). Strategic perspectives of corporate sustainability management to develop a sustainable organization. *Journal of Cleaner Production*, 140(1), pp. 81-92. doi:10.1016/j.jclepro.2016.04.146
- Chen, I. J., & Paulraj, A. (2004). Towards a theory of supply chain management: the constructs and measurements. *Journal of Operations Management*, 22(2), pp. 119-150. doi:10.1016/j.jom.2003.12.007
- Clifford Defee, C., Esper, T., & Mollenkopf, D. (2009). Leveraging closed-loop orientation and leadership for environmental sustainability. *Supply Chain Management*, 14(2), pp. 87-98. doi:10.1108/13598540910941957
- Daily, B. F., & Huang, S.-c. (2001). Achieving sustainability through attention to human resource factors in environmental management. *International Journal of Operations & Production Management*, 21(12), pp. 1539-1552. doi:10.1108/01443570110410892
- DiMaggio, P. J., & Powell, W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, 48(2), pp. 147-160. doi:10.2307/2095101
- Directorate General of Customs. (2017-2018). *Algerian foreign trade statistics period: year 2018*. Récupéré sur <https://www.douane.gov.dz/spip.php?rubrique79&lang=fr>
- General Directorate of Customs. (2012-2018). Récupéré sur <https://www.douane.gov.dz/spip.php?rubrique79&lang=fr>
- Henson, S., & Jaffee, S. (2006). Food Safety Standards and Trade: Enhancing Competitiveness and Avoiding Exclusion of Developing Countries. *The European Journal of Development Research*, 18(4), pp. 593-621. doi:10.1080/09578810601070753
- Henson, S., & Loader, R. (2001). Barriers to Agricultural Exports from Developing Countries: The Role of Sanitary and Phytosanitary Requirements. *World Development*, 29(1), pp. 85-102. doi:10.1016/S0305-750X(00)00085-1

- Ketokivi, M. A., & Roger, G. S. (2004). Strategic, structural contingency and institutional explanations in the adoption of innovative manufacturing practices. *Journal of Operations Management*, 22(1), pp. 63-89. doi:10.1016/j.jom.2003.12.002
- Lamuka, P. (2014). Public Health Measures: Challenges of Developing Countries in Management of Food Safety. *Encyclopedia of Food Safety*, pp. 20-26.
- Liu, H., Ke, W., Wei, K., Gu, J., & Chen, H. (2010). The role of institutional pressures and organizational culture in the firm's intention to adopt internet-enabled supply chain management systems. *Journal of Operations Management*, 28(5), pp. 372-384. doi:10.1016/j.jom.2009.11.010
- McFadden, K. L., Henagan, S. C., & Gowen, C. R. (2009). The patient safety chain: Transformational leadership's effect on patient safety culture, initiatives, and outcomes. *Journal of Operations Management*, 27(5). doi:10.1016/j.jom.2009.01.001
- Nugroho, A. (2014). The Impact of Food Safety Standard on Indonesia's Coffee Exports. *Procedia Environmental Sciences*(20), pp. 425-433. doi:10.1016/j.proenv.2014.03.054
- ONS. (2011-2017). *Industrial activity*, 97. Récupéré sur economic statistics.
- ONS. (2015-2018). *Economic accounts in volume from 2015 to 2018*, 862.
- Pagel, M., & Wu, Z. (2009). Building a More Complete Theory of Sustainable Supply Chain Management Using Case Studies of 10 Exemplars. *Journal of Supply Chain Management*, 45(2), pp. 37-56. doi:https://doi.org/10.1111/j.1745-493X.2009.03162.x
- Perez-Batres, L. A., Miller, V. V., & Pisani, M. J. (2011). Institutionalizing sustainability: an empirical study of corporate registration and commitment to the United Nations global compact guidelines. *Journal of Cleaner Production*, 19(8), pp. 843-851. doi:10.1016/j.jclepro.2010.06.003
- Reed, K. E. (2002). Everyone Takes the Field: How 3M Encourages Employee Involvement in Promoting Sustainable Development. *Corporate Environmental Strategy*, 9(4), pp. 383-389. doi:10.1016/S1066-7938(02)00109-4
- SME. (2012-2018). *Statistical information bulletin*. Récupéré sur <https://douane.gov.dz/spip.php?rubrique79&lang=fr>
- Teo, H. H., Wei, K., & Benbasat, I. (2003). Predicting Intention to Adopt Interorganizational Linkages: An Institutional Perspective. *MIS Quarterly*, 27(1), pp. 19-49. doi:10.2307/30036518
- WHO . (2020, 10 4). *Dioxins and their effects on human health*. Récupéré sur Fact sheets: <http://www.who.int/mediacentre/factsheets/fs225/en/>

Zsidisin, G. A., Melnyk, S., & Ragatz, G. (2004). An institutional theory perspective of business continuity planning for purchasing and supply management. *International Journal of Production Research*(43), pp. 3401-3420. doi:10.1080/00207540500095613