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THE ROLE OF THE FOOD AND BEVERAGE SECTOR IN TÜRKİYE'S ECONOMIC STRUCTURE AND ANALYSIS OF SECTORAL ENTERPRISE-CPI CORRELATION

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Abstract

Food and beverages are basic physiological needs and are essential elements of a healthy diet and survival. Thus, although food prices increase, there is no significant change/decrease in the total food demand of the individuals. This study was conducted to determine the role of the food and beverage sector in Türkiye's economic structure, and to analyze the correlation between the sectoral enterprise and the Consumer Price Index (CPI). The main material of this study consists of data organised from the "Annual Industry and Services Statistics", "Foreign Trade Statistics", "Household Consumption Expenditures Statistics", and "Consumer Price Index (CPI)" of the Turkish Statistical Institute (TURKSTAT). The data were analysed in a computer-aided programme. According to the findings of the research, it has determined that the food and beverage sector has a significant share in the manufacturing industry. In the 11-year period, the export value of the sector increased by 81.8%, and reached 22 917 million USD. In the 13 years, 12.0% of the employees in the manufacturing industry were employed in the food and beverage sector. In the period analysed, the number of enterprises in the sector also increased along with the CPI. CPI increased 14.1 times, and the number of enterprises in the sector increased 1.7 times. In the study where CPI data were regarded as the independent variable and the number of enterprises in the sector as the dependent variable, and analysed with the single linear regression model, it was detected that the relationship between the variables was statistically significant. The study serves as a reference in terms of raising awareness on the economic importance of the food and beverage sector.

Key words**:** *linear regression model, manufacturing industry, food and beverage, employment, consumer price index, international food trade*

INTRODUCTION

Nutritional adequacy is essential for good health and a productive life. Although foods are of plant and animal origin [9], most of the food needs of humans are provided by plant-based foods [19]. In general, most of the food is produced in the agricultural sector.

Vegetables are the most important nutritional source. They are very useful for both health protection and disease prevention. Vegetables contain important food components for the development and repair of the body. They are rich in minerals, vitamins, and fibre [3].

Chemical compounds that are naturally found, especially in vegetables and fruits from plant foods, and have strong antioxidant properties are generally called polyphenols. Polyphenols are of much essence in terms of health because they have an antioxidant structure [22]. They have the potential to neutralise free radicals and fight cancerous cells. They also have the effect of reducing the risk of heart disease. Polyphenols, which can also lower blood sugar levels, have been proven to have positive effects on brain health, the immune system, and the digestive system [8]. Fruits, vegetables, some spices, cereals, nuts, flax seeds, flax seeds, leaves of plants, olive and olive oil, coffee, and cocoa are natural nutritions with polyphenol compounds [5]; [25].

Food and beverage manufacturing is an integral part of the food chain, which encompasses the production, distribution and storage, wholesale, retail, foodservice, and catering of agriculture and fisheries and other food and beverage [16]. Since the demand-price elasticity of food products is generally low, the impact of price changes on demand is limited. The reason is that these products are mostly absolute necessities, but on the other

hand, there is a limit to how much an individual can eat and drink. There are many factors affecting the demand for food and beverage products. These are the demographic and socio-economic changes and differences of society, their lifestyles and revenues, changes in prices, health and nutrition conditions, and migrations [7]; [15].

The food and beverage sector is a sector that has a significant share in Türkiye's foreign trade [17]. According to 2024 data, Türkiye gained a total income of 22,917 million USD from food and beverage exports and received a share of 9.3% of the total manufacturing industry export value [28]. Türkiye has been an important power in its region in exports of food and beverage products to European and Middle Eastern markets [29].

There is a total of 58,299 enterprises in the food and beverage sector in Türkiye [26]. The total number of enterprises in the sector is 12.6% of the total manufacturing industry. 12% of the employees in the manufacturing industry were employed in the food and beverage sector [26]. Thus, the food and beverage sector is in the largest employer position in Türkiye.

As of 2023, the food and beverage sector accounted for 14.8% of production value and turnover, and 11.6% of the value added of the total manufacturing industry. Over the 13 years, the production value, turnover, and value added of the sector increased by 65.6%, 65.3%, and 114.4%, respectively. In the same period, while the food and beverage CPI increased 14.1 times, the number of enterprises in the sector increased 1.7 times. In other words, both CPI and the number of sectoral enterprises increased.

Although there are many studies conducted on the food and beverage sector in the literature, there is no study on the place of the sector in the economy and the correlation of the number of enterprises in the sector with the CPI. Some of these studies are:

In the study entitled 'Fast food applications in the food and beverage sector and evaluation of the franchising systeuctedm' which [11] conducted in 2011, he examined how the fast food sector is positioned in the food and beverage industry, the historical development process in the world and Türkiye and the franchising system of the sector in this process. In the study entitled 'Evaluation of New Trends in Food and Beverage Consumption' by [13], new trends in food and beverage consumption were revealed, and the usage patterns of these trends in the Turkish food and beverage sector were determined. In [14]'s study titled 'Knowledge, opinions and behaviours of food and beverage personnel about food waste: The case of Eskişehir province', the knowledge, opinions, and behaviours of the kitchen staff regarding food waste were detected. In their study entitled 'Sustainability and innovative approaches in the food and beverage sector', which [24], they emphasised the importance of alternative and innovative sustainable practices in the food and beverage sector. In the study titled 'New Technologies and New Foods in the Food Industry' by [31], new foods and food ingredients, other food technology trends that are expected to transform the food sector, meat production in the laboratory, and climate change and food security issues were investigated.

In this study, the economic role of the food and beverage sector in Türkiye was examined, and the correlation between sectoral enterprise and CPI was analyzed.

MATERIALS AND METHODS

The main material of this study consists of data organised from "Annual Industry and Service Statistics", "Foreign Trade Statistics", "Household Consumption Expenditure Statistics", and "Consumer Price Index (CPI)" of the Turkish Statistical Institute (TURKSTAT).

The data covers the periods 2010-2023 and 2010-2024. A computer-based program (Microsoft Excel) was used in the analysis of the data. In the analysis, tables and figures appropriate to the purpose of the study were created and interpreted. The tables provide the number of enterprises in the food and beverage sector, the number of employees, production value, turnover, created added value, foreign trade values, developments in sectoral enterprise and CPI, and statistical analysis results. The figures provide annual

developments in sectoral CPI and annual developments in the number of enterprises.

In statistical models, it is necessary to examine how a change in any variable affects the value of another variable. One of the models used in the analysis of the correlation between variables is the single linear regression model. The relationship between X and Y values is best expressed in the single linear regression model. In this study, the linear regression model was used, and the equation of the model is given in the equation below [18]; [23]; [4].

$$Y = a + b.x \quad \text{.....(1)}$$

In the function above, the food consumer price index figures (X) were regarded as the independent variable, and the number of enterprises in the sector (Y) as the dependent variable. In the linear regression equation, a indicates the point where the curve intersects the Y-axis, and b indicates the regression coefficient. The following equations were used in the analysis [21]; [6]; [12]:

Regression coefficient:

$$b = \frac{\sum d\bar{x}.d\bar{y}}{\sum d\bar{x}^2} \quad \text{.....(2)}$$

Regression variance:

$$S^2 = \frac{\sum dyx2}{n-2} \quad \text{.....(3)}$$

Regression standard deviation:

$$S = \sqrt{S2} \quad \text{.....(4)}$$

Regression coefficient standard deviation:

$$S_b = \frac{Syx}{\sqrt{dx2}} \quad \text{.....(5)}$$

t-test;

$$t = \frac{b}{Sb} \quad \text{.....(6)}$$

Correlation coefficient;

$$r = \frac{\sum d\bar{x}.d\bar{y}}{\sqrt{(\sum dx2).(\sum dy2)}} \quad \text{.....(7)}$$

RESULTS AND DISCUSSIONS

The role of the food beverage industry in the economic structure

The food and beverage sector makes a significant contribution to the macroeconomy in terms of employment and income [20]. The sector's employment and income contribution to the Turkish economy is also extremely significant. Enterprises in the food and beverage sector have a more substantial work capacity than other sectors. These are: raw milk and dairy products, red meat slaughterhouses, poultry meat slaughterhouses, meat cutting and processing, aquaculture processing, animal by-product processing, and egg and egg products enterprises [10].

The findings regarding the role of the food and beverage sector in the economic structure and its place in the manufacturing industry in Türkiye are given below:

Number of enterprises and employment in sector

According to TUIK's 2023 data, the number of food and beverage enterprises was 58,299, which was 12.6% of those in the total manufacturing industry. In the 13 years between 2010 and 2023, the number of enterprises in the food and beverage sector increased by 69.6% (1.7 times). In 2023, a total of 609,021 employees were employed in the food and beverage sector, 589,988 of whom were in the food sector and 19,033 of whom were in the beverage sector (Table 1).

In the same year, 12% of total manufacturing industry employment was in the food and beverage sector. In the 13 years, employment in the sector increased by 78.6%.

Developments in the production value, turnover and added value of the sector

Developments in the production value, turnover and value added of the food and beverage sector were reviewed, and given in Table 2.

In 2023, the production value of the sector was approximately 96,488 million USD. In the same year, the turnover of the sector was 102,525 million USD, and the value added 18,642 million USD. In the 13 years between 2010 and 2023, the sector's production value increased by 65.6%, turnover by 65.3% and value added by 114.4%. In 2023, the food and beverage sector received a share of 14.8% from the standpoint of production value and turnover, and also 11.6% from the standpoint of value added in the total manufacturing industry.

Table 1. Number of Enterprises and Employees of the Food and Beverage Sector

Sector	Number of enterprises in the sector								
	2010		2015		2020		2023		Index
	(number)	(%)	(number)	(%)	(number)	(%)	(number)	(%)	(2010=100)
Food manufacturing	33,727	10.3	43,733	11.6	52,871	12.9	57,606	12.5	170.8
Beverage manufacturing	639	0.2	557	0.2	658	0.2	693	0.1	108.4
Total	34,366	10.5	44,290	11.8	53,529	13.1	58,299	12.6	169.6
Manufacturing industry total	326,925	100.0	375,480	100.0	409,482	100.0	461,644	100.0	141.2.
	Number of employees								
Sector	(person)	(%)	(person)	(%)	(person)	(%)	(person)	(%)	Index (2010=100)
Food manufacturing	328,118	12.5	451,263	12.5	497,519	12.4	589,988	11.7	179.8
Beverage manufacturing	12,847	0.5	15,508	0.4	17,152	0.4	19,033	0.3	148.1
Total	340,965	13.0	466,771	2.9	514,671	12.8	609,021	12.0	178.6
Manufacturing industry total	2,617,991	100.0	3,621,817	100.0	4,009,649	100.0	5,051,468	100.0	192.9

Source: [26].

Table 2. Production value, turnover and value added of the sector for the period 2010-2022

Sector	Production value of the sector								
	2010		2015		2020		2023		
	(1,000 USD)	(%)	(1,000 USD)	(%)	(1,000 USD)	(%)	(1,000 USD)	(%)	Index 2010=100
Food manufacturing	54,666,178	15.2	62,851,299	15.3	58,664,021	14.5	91,892,457	14.1	168.1
Beverage manufacturing	3,608,420	1.0	3,440,564	0.8	2,777,737	0.7	4,595,405	0.7	127.3
Total	58,274,598	16.2	66,291,863	16.1	61,441 ,758	15.2	96,487,862	14.8	165.6
Manufacturing industry total	359,227,772	100.0	410,605,647	100.0	405,410,689	100.0	653,216,720	100.0	181.8
	Turnover								
Food manufacturing	58,387,123	15.2	68,088,390	15.4	63,874,160	14.7	98,066,811	14.2	167.9
Beverage manufacturing	3,630,117	0.9	3,416,172	0.8	2,767,287	0.6	4,458,460	0.6	122.8
Total	62,017,240	16.1	71,504,562	16.2	66,641,447	15.3	102,525,271	14.8	165.3
Manufacturing industry total	384,850,629	100.0	442,512,648	100.0	435,983,952	100,0	690,167,936	100.0	179..3
	Value added								
Foodmanufacturing	7,747,390	11.8	9,684,717	11.2	9,212,623	10.0	17,640,334	11.0	227.7
Beverage manufacturing	948,926	1.4	757,913	0.9	517,230	0.6	1,001,823	0.6	105.6
Total	8,696,316	13.2	10,442,630	12.1	9,729,853	10.6	18,642,157	11.6	214.4
Manufacturing industry total	65,939,645	100.0	86,482,826	100.0	92,020,324	100.0	160,794,814	100.0	243.8

Source: [26].

Foreign trade of the sector

Türkiye ranked 22nd in the world in exports of food and beverage sector products [29].

Table 3 shows the developments in the food and beverage sector foreign trade value in the period 2013-2024. According to this information, it was observed that there was a significant increase in the export value of the sector over the 11 years. Exports of food and beverages were 12,532 million USD in 2013, while it was 12,705 million USD in 2015, 14,289 million USD in 2020, and 22,917 million USD in 2024. In the 11 years, the export value of the sector increased by 82.8%. In the same period, the import value of it also increased, and this increase was 69.7%. The share of exports of the sector in exports of total manufacturing sector was 9.3%, while the share of imports of sector in imports of total manufacturing sector was 4.2%.

Table 3. Foreign trade values of the sector for period 2013-2024

Sector	Export value of the sector								
	2013		2015		2020		2024		Index (2013=100)
	(1,000 USD)	(%)	(1,000 USD)	(%)	(1,000 USD)	(%)	(1,000 USD)	(%)	
Foodmanufacturing	12,259,401	8.1	12,418,086	8.7	14,000,134	8.7	22,420,788	9.1	182.9
Beverage manufacturing	272,828		286,854	0.2	288,867	0.2	496,171	0.2	181.8
Total	12,532,229	8.3	12,704,940	8.9	14,289,001	8.9	22,916,959	9.3	182.8
Manufacturing industry total	151,483,194	100.0	142,267,945	100.0	159,952,829	100.0	246,528,954	100.0	162.7
	Export value of the sector								
Foodmanufacturing	6,461,589	3.1	5,817,862	3.4	6,118,258	3.4	10,603,765	3.8	164,1
Beverage manufacturing	516,934	0.3	456,814	0.2	537,063	0.3	1,241,430	0.4	240.1
Total	6,978,523	3.3	6,274,676	3.6	6,655,321	3.7	11,845,195	4.2	169.7
Manufacturing industry total	206,177,969	100.0	173,110,264	100.0	179,808,651		280,075,297	100.0	135.8

Source: [28].

Analyzing the correlation of sectoral enterprise with *the* Consumer Price Index (CPI)

Developments in the number of enterprises and the (CPI) in the sector

In the study, in the 2010-2023 period, the developments in the CPI data on the food sector and the number of enterprises in the sector were also analysed and presented in Table 4.

Table 4. Developments in the consumer price index and number of enterprises

Year	Sector CPI		Number of enterprises in the sector	
	(2003=100)[1]	Annual increase rate[2] (%)	(Number)[3]	Annual increase rate (%)[4]
2010	189.21	-	34,366	-
2011	212.33	12.2	35,635	3.7
2012	220.80	4.0	40,174	12.7
2013	242.31	9.7	42,488	5.7
2014	273.27	12.8	45,541	7.2
2015	302.95	10.9	44,290	- 2.7
2016	320.14	5.7	46,127	4.1
2017	364.20	13.8	48,212	4.5
2018	455.89	25.2	49,653	3.0
2019	505.94	11.0	51,987	4.7
2020	610.32	20.6	53,529	3.0
2021	879.70	44.1	58,216	8.7
2022	1,565.83	78.0	59,778	2.7
2023	2,675.31	70.8	58,299	-2.5

Source: [1] [27] ; [3] [26] ; [2,4] Research results.

According to this information, both the number of enterprises in the sector and the sector CPI increased every year in the period studied. As from 2020, there has been a higher increase in CPI, which was at its highest level with 78% in 2022. It was conspicuous that the high increase in CPI coincided with the period of the COVID-19 pandemic. Household food expenditures increased during the pandemic period, and while 20.8% of household consumption expenditures were food expenditures in 2019, this rate increased to 22.9% in 2022 [27]. In the period analysed, CPI increased 8.3 times, while the number of enterprises in the sector increased 1.7 times.

The highest increase in the number of enterprises was in 2012 (12.7%) and 2021 (8.7%). [2], in his study, analyzed the distribution of consumption expenditures of households according to the main source of income.

According to this, food expenditures received

the highest share in household expenditures, with 23.1%, and health expenditures received the lowest share, with 2%.

The sector's annual CPI data and the developments in the number of enterprises were also given in Figures 1 and 2. When the data are analysed, it is seen that there was an increase in both variables, but that in the CPI was higher.

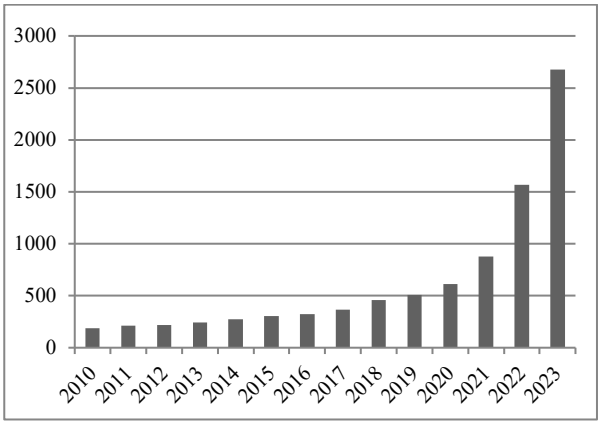

Fig. 1. Annual developments in the food and beverage sector CPI in Türkiye
Source: Created using the data in [27].

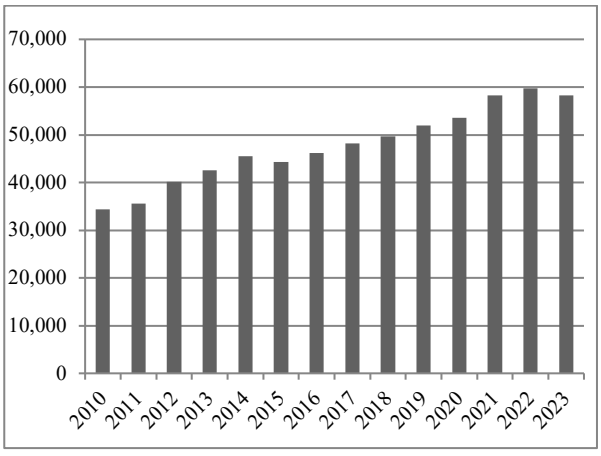

Fig. 2. Annual developments in the food-beverage sector enterprise number in Türkiye
Source: Created using the data in [26].

Statistical analysis

One of the most commonly used methods in the measurement of the correlation between variables is the single linear regression model. In the study, sectoral CPI data were regarded as the independent variable, and the number of enterprises in the sector was regarded as the dependent variable.

The independent variable was denoted by X, and the dependent variable was denoted by Y.

In the study, statistical information on the variables and the correlation of the variables were given in Table 5.

Regression coefficient

The regression coefficient is the value of the change in the dependent variable in response to a unit change in the independent variable. The regression coefficient (b) was detected as 9.20. This shows that a one-unit change in the independent variable changes the dependent variable by 9.20 units.

A positive regression coefficient means that as X increases, Y also increases.

In this context, a possible increase in food and beverage prices positively affects the food sector entrepreneurship. In other words, an increase of one lira in food and beverage prices causes an average increase of 9.20 units in the number of enterprises in the sector.

Regression function

In the study, the regression function was obtained as:

$$Y=41{,}201.04+9.20x\ldots\ldots..\ldots\ldots\ldots\ldots..(8)$$

Deviation from regression

Deviation from regression is a measurement of the distance or proximity between the dependent variable Y values and the calculated *Y* function values.

The deviation values from the regression calculated from the formula dyx= Y- *Y* are given in Table 6.

The standard deviation of the regression coefficient (S_b) was calculated as 4,88.

t-test:

H_o: There is no correlation between variables ($t_{calculation} < t_{table}$).

H_1: There is a no correlation between variables ($t_{calculation} > t_{table}$).

t value was 1.89.

Degrees of freedom SD = 15-2=13, and t_{table} is 1.77 for a confidence interval of 95% and an error margin of 5% (p= 0.05). Due to the $t_{calculation} > t_{table}$, H_o hypothesis was rejected, and H_1 hypothesis was accepted. There was a correlation between sectoral enterprise and CPI, which was statistically significant.

Table 5. Variables and statistical calculations

X	**Y**	x- $\bar{x}$ = d $\bar{x}$	y- y = dy	**d $\bar{x}^2$**	**d y^2**	d $\bar{x}$. dy
176.79	32,475	-422.88	-14243	178827.49	202863049	6023079,84
189.21	34,366	-410.46	-12352	168477.41	152571904	5070001,92
212.33	35,635	-387.34	-11083	150032.27	122832889	4292889,22
220.80	40,174	-378.87	-6544	143542.48	42823936	2479325.28
242.31	42,488	-357.36	-4230	127706.17	17892900	1511632.8
273.27	45,541	-326.40	-1177	106536.96	1385329	384172.8
302.95	44,290	-296.72	-2428	88042.76	5895184	720436.16
320.14	46,127	-279.53	-591	78137.02	349281	165202.23
364.20	48,212	-235.47	1494	55446.12	2232036	-351792.18
455.89	49,653	-143.78	2935	20672.69	8614225	-421994.3
505.94	51,987	-93.73	5269	8785.3	27762361	-493863.37
610.32	53,529	10.65	6811	113.42	46 389721	72537.15
879.70	58,216	280.03	11498	78416.80	132204004	3219784.94
1,565.83	59,778	966,16	13060	933465.14	170563600	12618049.6
2,675,31	58,299	2,075.64	11581	4308281.41	134119561	24037986.84
Σx=8,994.99 $\bar{x}$=599.67	y=700,770 y=46.718	-	-	Σ=6446483.44	Σ=1068499 980	Σ=59327448.93

Source: Research results.

Table 6. Deviation values from regression

Y-Y=dyx	**dyx^2**
32,475-42,827.51= -10,352.51	107174463.30
34,366-42,941.77 = -8 ,575.77	73543831.09
35,635-41,506.25 = -5,871.25	34471576.56
40,174-43,154.47 = -2,980.47	8883201.42
42,488-43,430,29 = -942.29	887910.44
45,541-43,715,12 = 1,825.88	3333837.77
44,290 -43,988,18= -301.82	91095.31
46,127-44,146,33 = 1,980.67	3923053.65
48,212-44,551,68 = 3,920.45	15369928.20
49,653-45,395,23 = 4,257.77	18128605.37
51,978-45,855,69 = 6,122.31	37482679.74
53,529-48,805,39 = 4,723.61	22312491.43
58,216-49,294,28= 8,921.72	79597087.76
59,778-55,606,67 = 4,171.33	17399993.97
58,299-65,813.89 = -7,514.89	5647351.71

Source: Research results.

In the study, a correlation analysis between variables was performed, and the direction of the relationship was also determined. The correlation coefficient (r) was calculated as 0.715. There was a positive and high-level correlation between the variables. Although the correlation between the variables was significant, It should be considered that CPI might not be the only factor, and variables such as credit interest rates, investment incentives and investment costs might also affect in the number of enterprises.

The fact that the price elasticity of demand for food and beverage sector products is less than 1, but is not negative, and that these products are the foodstuff of the population, results in favor of the total amount of demand. Since the total population increases every year, this will also increase the total demand. At the same time, the idea of stockpiling food formed in consumers during periods when CPI increases, also increases the total demand for food [30]. These characteristics of food are thought to set off sectoral entrepreneurship. They are effective in new sectoral investments.

[1], in their study entitled “Demand elasticities of important food products in Turkey”, they conducted on food, expressed that the price elasticity of demand of food and beverage sector products is less than 1, but not negative. In the study entitled “The economıc characterıstıcs of food products and beverages industry” conducted by [2], it was stated that the need for food and beverages is one of the basic and indispensable needs, these needs are of vital importance, and the food and beverage sector is the source of economic development all over the world.

In conclusion, although there was a direct correlation between CPI and the number of sectoral enterprises, the possible relationship of the sector, except for CPI, with other variables should be analyzed by studies to be conducted. In Table 7, the analysis results are given.

Table 7. Summary analysis results

$\sum = d\,\bar{x}^2$ = **6446483,44**	$\sum = d\,y^2$ = **1068499980**	$\sum = d\,\bar{x} \cdot dy$ = **59327448,93**
Regression coefficient: $b = \frac{\sum dx.dy}{\sum dx2} = \frac{59327448,93}{6446483,44} = 9.20$		
Deviation from regression: $\sum dyx^2 = 2000696219,52$ Regression variance: $S2 = \frac{dyx2}{n-2} = \frac{2000696219,52}{13} = 153899709,1938$		
Regression standard deviation: $S = \sqrt{S2} = \sqrt{153899709,1938} = 12\,405,6321$		
Regression coefficient standard deviation; $Sb = \frac{S}{\sqrt{dx2}} = \frac{12405,6321}{\sqrt{6446483,44}} = \frac{12405,6321}{2538,9926} = 4.88$		
t-test: Ho: There is no correlation between variables ($t_{calculation} < t_{table}$). H1: There is a no correlation between variables ($t_{calculation} > t_{table}$). $t = \frac{b}{Sb} = \frac{18,34}{3,75} = 1.89$ SD = 15-2=13 For a confidence interval of 95% and an error margin of 5% (p=0.05): t_{table} :1.77 There is a statistical correlation between the variables.		
Correlation coefficient *:* $r = \frac{\sum dx.dy}{\sqrt{(\sum dx2).(\sum dy2)}} = \frac{59327448,93}{\sqrt{(6446483,45).(1068544980)}} = \frac{59327448,93}{\sqrt{(6888835752915058 1)}} = \frac{59327448,93}{82996129,6034} = 0.715$ Statistically, there is a high level of positive correlation between the variables.		

Source: Research results.

CONCLUSIONS

This article was designed to analyze both economically and statistically the structure of the food and beverage sector in Türkiye. For this purpose, the study offers a new methodological approach to raise awareness of sectoral investments.

The food and beverage sector provides a large part of its raw materials from agriculture. While the agricultural sector is the sector where raw products are harvested, the sector where these products are processed is also the food sector. Therefore, the food sector has a strategic role.

In light of the findings of the study, it was concluded that the food and beverage sector has preserved its continuity, and sectoral enterprises have continued even in periods when CPI is high. This can be explained by the fact that food is an absolute consumable item for the people and consumer demand increases depending on the increase in product stockpiling in high inflation. In this context, the food sector is the only sector that can be ventured in periods when macroeconomic developments are unfavourable and the economy is stagnant.

The fact that food has a dominant role in economic activities ensures that the sector remains a player in every period. For the development of the sector, rational precautions should be taken by the state, and sector enterprises should be supported with low-cost credits.

Although the correlation of enterprise with CPI has been revealed in the study, other variables other than CPI should also be considered, and they should be analysed in studies to be conducted.

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