



# Impact of Investment, Employment Generation, and Exports by Smes of Food Processing

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**Abstract:** Introduction The food processing industry bridges the gap between the agricultural and manufacturing sectors of a country's economy. Aim of the study The main aim of the study is Impact of Investment, Employment Generation, And Exports by SMES of Food Processing. Material and method The problems and prospects of these units have been analyzed and interpreted under this study. Conclusion The article discusses the processed food market in India and provides an overview of the food processing sector in the country.

**Keywords:** investment, employment generation, exports, SMEs, food processing, agricultural, manufacturing, problems, prospects, processed food market, India, overview, sector

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## INTRODUCTION

The food processing industry bridges the gap between the agricultural and manufacturing sectors of a country's economy. As a result of the work done in this area, the connections between processors and farmers, as well as between processors and consumers, are strengthened. Reducing food waste, increasing the value of agricultural produce by extending its shelf life and fortifying its nutritive capacity, and ensuring remunerative prices to farmers and affordable prices to consumers all depend on a robust food processing sector. The food processing industry in India is a 'sunrise sector' that has seen significant growth in recent years. The post-liberalization period in India has seen the processed food sector expand thanks to a number of factors, including increased access to raw materials, changing consumer preferences, the rise of organized food retail, and the country's fast urbanization. When considering output, consumption, export, and projected growth, the food processing sector in India comes in at number five.

The food processing industry is vast, including not just farming and fishing, but also gardening, plantation work, animal husbandry, and fisheries. Meat, fish, fruit and vegetables, oils and fats, dairy products, grain mill goods, other food items, and beverages are the five main categories of the Indian food processing business. The major Sub-segments of the sector and the several States / Union Territories of India are included in this research of the food processing industry in India utilizing time-series data for the period from 1973-2008 and panel data from 1998-2008.

## LITERATURE REVIEW

**Robbyah, Aizzah Sifaur & Khusnul Mubarak (2021)** Due to the effect of fundamental and technical circumstances as well as micro and macro factors, the return and risk of stock investing are very changeable. The purpose of this research is to quantify insurance industry risk and ROI and to dissect the

relationship between these metrics and macroeconomic factors. Purposive sampling was used for this study's data collection. According to the data, Asuransi Harta Aman Pratama Tbk. has the lowest conclusion rate (-3.3%) during the last three years, while Asuransi Jasa Tania Tbk. has the greatest rate (22.3%). The value of GDP has climbed steadily over the last three years, which should lead to a stock return that is commensurate with the degree of risk that will be encountered. If the inflation rate fluctuates up and down for three years in a row, the investment return will be highest in the year when the inflation rate drops. Additionally, the interest rate fell from 4.75 percent in 2016 to 4.25 percent in 2017. In 2018, however, it rose to 6.00%. There has been a rise in the value of one dollar in terms of Rupiah, signaling a weakening of the Rupiah. From 2016 through 2018, yearly. As the value of the rupiah declines relative to other currencies, investors may find it more attractive to diversify their portfolios into other currencies.

**P. Subramanyam, Dr & Kalyan, Dr. (2020)** The primary goal of the research was to provide investors with a foundational understanding of mutual fund investing and to inspire them to allocate money where it would provide the highest rate of return. The study revealed some fascinating information on investors' familiarity with mutual funds, their willingness to take risks, and their preferred investing vehicles, among other things. The value of India's capital has risen dramatically in recent years. Many changes have occurred in the Indian money market and Capital market as a result of the opening up of the economy brought about by economic, investment policy, public sector, and financial sector reforms. The mutual fund business has risen to prominence as a means of assisting individual investors. This research enlightens our knowledge of how corporations diversify their holdings across industries and firms in order to maximize profits while minimizing losses.

**Prajapati, M.R. & Singh, (2020)** Financing decisions, such as those pertaining to a company's cost of capital, capital structure, and leverage, play a crucial role in the organization's overall financial management. The capital structure of a company is critical to the development of shareholder value. This article presents the results of an examination of the capital structure in the Indian food processing sector and discusses those results in the context of two primary goals. The first goal is to understand the capital structure's pattern, and the second goal is to comprehend the structure's trend. Tabulation, graphs, descriptive statistics, trend analysis, and ratio analysis were used to examine the data, which was collected from 2013-2018. The results show that equity capital is vital to the company's operations, and that the trend of capital is upward, with equity capital expanding at a faster pace than debt capital. Companies are unwilling to increase their financial risk by adding borrowed capital to their capital structure, as seen by this trend.

**Patjoshi, Pramod. (2020)** The stock market is an essential component of every functioning economy and a key indicator of a country's overall economic health. When compared to other investing opportunities, stock market investments are seen as the most lucrative. The potential for gain is tied to the possibility of loss in each investment. The riskier an investment is, the greater its predicted return. When the stock market is volatile, stock prices are also volatile. This is because of the increased uncertainty in the market caused by the large price differences. India's biotechnology industry is at the forefront of innovation and has great potential for expansion. Due to its vast untapped potential, the industry will continue to serve as a pivotal hub for cutting-edge production. Therefore, the purpose of this research is to assess the potential benefits and drawbacks of investing in biotechnology firms listed on the Bombay Stock Exchange. Risk

and reward are evaluated using the daily closing price of several Sensex indexes and a subset of Indian biotechnology businesses. Secondary data (from the BSE website) covering the years between 1 April 2010 and 31 March 2020 has been collected for this research. The risk and return of biotechnology firms listed on the Bombay stock exchange are analyzed using a variety of statistical methods.

**Georgieva (2018)** In order to calculate the financial and social return on investment, there has been a renewed emphasis on assessing the real effect of investments. There are a variety of approaches and practices available from various organizations and institutions that may help with the complicated task of impact measurement, which varies in approach and accuracy. The word "investment impact" risks being degraded and used just as a marketing tool for some investors if a specific degree of accuracy in assessment is not adopted throughout the sector, which is problematic for new investments and their impact. In order to analyze criteria, variables, and applicable techniques of analysis, this research seeks to examine the established specialized practices and procedures used to quantify the social effect caused by financial investments. The effects on financiers, social groups, funders, and evaluators are the focus of this analysis. Investors, non-profits, government agencies, and other conventional sources of funding and assessment are the target.

## **METHODOLOGY**

### **Sample Design**

The universe of the present study covers the food processing units in Rajasthan. The problems and prospects of these units have been analyzed and interpreted under this study. Food processing sector includes Grain & Cereals (rice mills), Edible oil (oil mills), Spices, Fruits & vegetables, Meat & Poultry, Milk and dairy products, Fisheries & Sea foods, Consumer industry and Plantation of tea, coffee, cashew coca etc. But for the present study, (i) Grains, (ii) oil mills, (iii) spices and (iv) Rice Mills have been covered as selected segments of the food processing industry as many studies had been previously conducted by earlier researchers on

- Other Grains
- Dairy
- Consumer Industry and
- Meat and Poultry

Fisheries and sea food is the negligible segment of FPI in Rajasthan. So, these segments have been excluded.

### **Collection of Data**

Both secondary and primary sources are relevant to the current investigation. We relied heavily on reports from the Indian and Karnataka governments, as well as the annual reports of micro, small, and medium-sized enterprises (MSMEs) on both the national and state levels, and the annual reports of the Ministry of Food Processing Industries, as our primary sources of secondary data. Primary information on Karnataka's

food processing industries was gathered using an interview schedule. A pilot survey used to fine-tune the questionnaire format. Bikaner, Balmer, Ajmer, Jaisalmer, and Jodhpur are just some of the regions the government has singled out as having particularly high concentrations of food production. Food items, grains products, spices, oil mills, rice mills, and other food processing subsectors all played a role in the selecting process.

## RESULTS

### DEMOGRAPHIC PROFILE

**Table 1 Business Practice Experience of Entrepreneurs in Food Processing Units**

	Frequency	Percent
2 to 4 years	173	36
4 to 6 years	58	12
6 to 8 years	29	6
8 years	24	5
Up to 2 years	197	41
Total	481	100

**Sources:** Authors Compilation

Table 1 shows that 41% of respondents had businesses with units that have less than 2 years of experience. 36% of those polled had teams with between two and four years of professional experience. While 5% of respondents' units have 10 or more years of experience in the company, the rest fall somewhere in between.

**Table 2 Location of Food Processing Units**

	Frequency	Percent
Rural	168	35
Semi-urban	130	27
Urban	183	38
Total	481	100.0

Table 2 shows that whereas 35% of dwellings may be found in rural regions, 27% are found in peri-urban and urban settings, respectively. The remaining 38% of dwellings may be found in metropolitan settings.

**Table 3 Motivational Factors for Starting of Food Processing Unit**

	Frequency	Percent
Cooperative Society Managements	67	14
Family Business	135	28
Government Programmes	58	12
Self Help Groups	53	11
Self-motivation	168	35
Total	481	100.0

Table 3 details the respondents' stated reasons for launching their own food processing businesses. In the survey, 14% of participants pointed to cooperative society managements as the reason, while 28% pointed to family businesses. Self-motivation was indicated by 35% of respondents as a source of motivation, the greatest percentage of any component. When asked what inspired them to start a food processing business, 58 (12%) cited government programs and 53 (11%) cited self-help organizations.

#### **IMPACT OF INVESTMENT, EMPLOYMENT GENERATION AND EXPORTS BY SMEs OF FOOD PROCESSING IN RAJASTHAN**

Many organizations, both governmental and private, have been working to boost the nation's economy by increasing production activities that lead to investment, employment, and small and medium-sized exports. Several items are having an impact on customers' decisions to meet both internal and exterior needs. These models are also helping boost exports and incoming currency.

The state of Rajasthan has seen significant growth in the number of small and medium-sized businesses. The SME Act of 2006 categorizes businesses into two broad groups: those engaged in manufacturing and those engaged in delivering services. There was a total of 1,75,469 people employed by the 2,79,291.24 million invested in the state's 28,742 units during 2014–15. Units, employees, and workers per unit have all been expanding on a year-by-year basis.

The number of units has increased by 1069 percent from 2013 to 2014. There has been a 2.02 percent rise in expenditures and a 4.85 percent increase in employment from 2014-15. From 2002-2013, the absolute number of registered units in the state of Rajasthan climbed from 620 to 800, and from 2005-2007, it increased to a peak of 1789. A total of 5,518 jobs were created between 2010 and 2011, an increase of 28.45 percent over the previous year. The employment rate rose by 25.51 percent in 2007-08 and by 27.60 percent in 2008-09. There was a record high of Rs. 4,939.57 lakh invested in 2010–11, representing a 51.56 percent rise from the previous year. This compares to Rs. 1845.00 lakh invested in 2004–05, an increase of 54.01 percent. The rise in investment between 2006-07 and 2008-09 was 41.42 percent, and between 2008-09 and 2014-15, it was 21.24 percent.

This indicates that the rise in investment from 1999-2000 to 2014-2015 did not lead to a corresponding rise in employment during this time. The expansion of the labor force has little impact on the total investment. The trend graph also shows that both investment and employment looked to be on the decline in Rajasthan, while the number of registered business units increased.

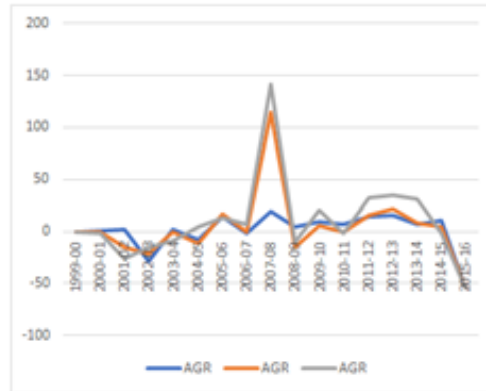
**Table 4 Number of units, employment & investment of small scale (SMEs) in Rajasthan**

Years	Units of Industries	AGR	Employment	AGR	Investment Rs. Lakhs	AGR
1999-00	15838	-	88279	-	73705.68	-
2000-01	16554	0.34	85792	-0.26	65157.83	-1.10
2001-02	16964	2.48	73195	-14.68	47883.60	-26.51
2002-03	12029	-29.09	57371	-21.62	40835.94	-14.72
2003-04	12220	1.59	56790	-1.01	37055.00	-9.26
2004-05	11238	-8.04	49998	-11.96	38541.00	4.01
2005-06	12780	13.72	58133	16.27	43647.08	13.25
2006-07	12580	-1.56	57517	-1.06	46542.04	6.63
2007-08	14984	19.11	123399	114.54	112656.18	142.05
2008-09	15705	4.81	105034	-14.68	101617.33	-9.80
2009-10	17195	9.49	111164	5.84	122815.99	20.86
2010-11	18434	7.21	111226	0.06	120623.01	-1.79
2011-12	21021	14.03	128387	15.43	159640.75	32.35
2012-13	24208	15.16	155609	21.20	216512.68	35.62
2013-14	25966	7.26	167347	7.54	285055.99	31.66
2014-15	28742	10.69	175469	4.85	279291.24	-2.02
2015-16	25656	-54.32	221706	-54.49	494592.00	-54.58

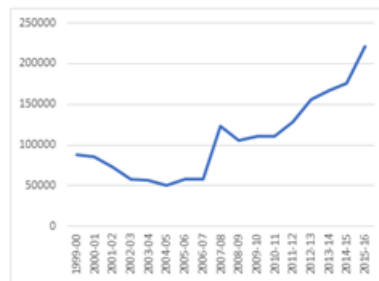
Source: Ministry of Food Processing Industries in Rajasthan.



**Figure 1 Growth Rate of Scale Industries (SMEs) in Rajasthan**



**Figure 2 Annual Growth Rate of Investment on Small Scale Industries (SMEs) in Rajasthan Chart Title**



**Figure 3 Growth Rate of Employment of Small-Scale Industries (SMEs) in Rajasthan**

### Analysis of Regression Output

The model's square correlation matrix is shown in the final table. Since there is only one direction of predictability, the current correlation of .945 based on a sample size of 17 is statistically significant at  $P > .001$ . Only one of the predictor variables, R, has a value close to the Pearson r's (.945).

The value of .892 for the strength of the predictive association (represented by the squared multiple correlations) shows that roughly 89% of the variation is explained by units, employment, and investment. Adjusted R-squared values show that the standard R-square statistic overestimates the amount of error variance (prediction error) that can be accounted for by the model. This is why it is standard practice to always provide R square along with an adjustment that yields the same realistic value. Rajasthan State Regression Analysis:

**Table 5 Regression Analysis on Rajasthan State SMEs: Model Summary**

Model R	R Square	Adjusted R Square	Std. An error of the Estimate	Change Statistics					Durbin-watson
				R Square Change	F Change	df1	df2	Sig. F Change	
.945 <sup>a</sup>	.892	.877	1816.8655 2	.892	57.920	2	14	.000	1.552



- a. Predictors: (Constant), Investment, Employment
- b. Dependent Variable: Units

One-way between-subjects ANOVA is being used to examine the significance of the regression model. Since there is only one predictor in the model, the degree of freedom for the effect being tested in the ANOVA is one. There are 14 degrees of freedom available for the error term, making the total number of degrees of freedom equal to N-1 or 16.  $F(1,14)=57.92$ ,  $p<.001$  indicates that a large amount of variation in the dependent variable is explained by the model. If there was no statistically significant impact from the regression, we would have concluded that our predictions were no better than random, and the investigation would have ended there.

Since both ANOVA and linear regression are simply special cases of the general linear model, the square value of ANOVA is calculated by dividing the sum of the squares associated with the Regression effect by the sum of the squares associated with the total variance. This yields 0.89, the same value as R square.

**Table 6 ANOVA of investment and employment of Rajasthan<sup>b</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	382390879.607	2	191195439.803	57.920	.000 <sup>a</sup>
Residual	46214004.628	14	3301000.331		
Total	428604884.235	16			

- a. Predictors: (Constant), Investment, Employment
- b. Dependent Variable: Units

**Table 7 Coefficients of employment and investment of Rajasthan <sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	6949.757	1838.187		3.781	.002
Employment	.075	.037	.583	2.029	.062
Investment	.024	.018	.372	1.295	.216

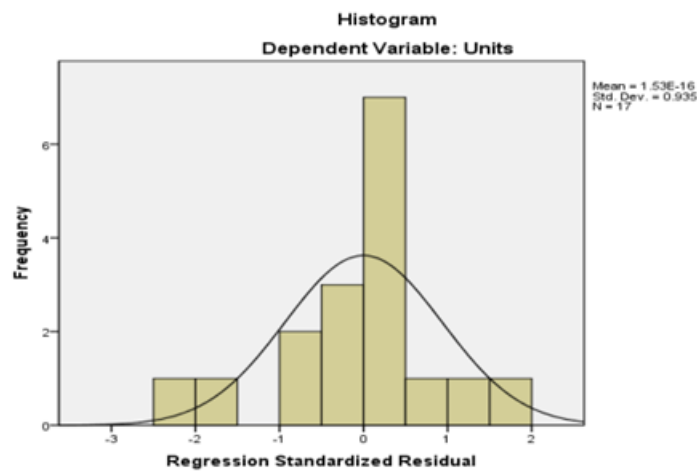
- a. Dependent Variable: Units

Under Un-standardized Coefficients, you'll find the employment and investment un-standardized regression coefficients, as well as the standard errors associated with those estimates. Assuming a t-test's significance level of .001, the un-standardized regressions of .075 and .024 are statistically significant. All the independent variables may be evaluated in an Ordinary Least Square (OLS) scenario by combining the regression coefficients and their significance. The OLS scenario for predicting SMEs' manufacturing equipment in Rajasthan may be generated using the regression coefficients for the independent variables



and the typical phrase supplied under the column ladled B value.

$$\text{Units} = 19.541 + 0.070 (\text{Employment}) + 0.212 (\text{Investment})$$



**Figure 4 Frequency of regression standardized residual histogram**

In order to visually assess the histogram's approximation to a normal curve, the normal curve is placed on it. In yet another example, the residuals follow a standard normal distribution, demonstrating that no assumption was broken. The standardized comparison histogram represents the normalization of the residuals. The normal distribution is shown by the straight line in the normal curve. The distribution of residuals is closer to normality the closer their frequencies are near this line.

## CONCLUSION

The article discusses the processed food market in India and provides an overview of the food processing sector in the country. It is emphasized how important it is to have a holistic approach to agriculture, food sourcing, and food processing. The shifting demographics in favor of processed, packaged, and convenience foods are explored, along with the underlying causes. After that, a comprehensive account of the Ministry of Food Processing Industries' (MOFPI) efforts to encourage private investment in India's food processing industry by facilitating the development of a reliable farm-to-market supply chain is provided. The Ministry of Food and Agriculture (MOFPI) has produced a vision for 2015, which comprises a suitable strategy and workable action plan to boost perishables processing, value addition, and market share in global food commerce. The MOFPI's 11th Plan (2007-2012) Schemes are also outlined, with key characteristics, goals, and constituents stressed. As the export trend gradually shifts from a focus on cereals to processed food, a summary of the exports of the Indian food processing industry in relation to its sub-segments is presented, revealing not only the quantity and composition of Indian processed food exports but also the shift in exports. New governmental measures to entice FDI are explored alongside the history of FDI and the impact of large food processing corporations. India's food processing industry is broken down into its component parts and briefly summarized in terms of production, processing capacity,

technical advances, value added, and growth rates.

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