Interdisciplinary Studies:
Converging Research for Growth and Development

Weaknesses

Threats

Opportunities

Strengths

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Interdisciplinary Studies: Converging Research for Growth and Development

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IX

FOOD MARKET IN INDIA –WITH SPECIAL REFERENCE TO YEAR ON YEAR REVENUE GENERATION IN THE COUNTRY

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ABSTRACT

The Indian food market, since early years, is featured by mass production and low margins. Recent brands must establish an equilibrium between constantly opening up to new experiences to saturated consumers in developed countries and catering to aspiring middle income groups in emerging markets. In 2020, the global food industry generated an overall earning of over US$8 trillion. At $5,555 per person, the Japanese spent the most on groceries. This study on the industry covers growth prospects, market drivers, consumer perceptions, key players, and future prospects of the industry from an international outlook.

The grocery products include fresh as well as processed foods. Markets include dairy and eggs, meat, fish, fruits and nuts, vegetables, bread and grain items, oils and fats, sauces, ready-to-eat foods, spreads, sweeteners, candy and snacks, infant food, and pet food are all included in this list. Retail prices with all applicable sales taxes are used to calculate all market values. Our study is based on secondary data taken from a number of Consumer Business Outlook studies, which give an overview of the global food market. Detailed analyses of current trends, prominent figures, and pertinent historical data, as well as all necessary market important metrics, such as total sales from 2013 to 2026 and his per capita sales. In general, the market for groceries is anticipated to expand at a CAGR of 4.0 from 2020 to 2026. Due to the global pandemic, the biggest potential for growth can be attributed to the baby food segment. Our findings reveal that Revenue generated by the food marker has a significant association with price per unit and the volume sold.

The food included are Fresh food, processed food and pet food.

Keywords: CAGR, Pandemic, food market, Consumer, Revenue

INTRODUCTION

The market is split as shown in the Consumer Market Outlook. It is divided into 13 segments of processed food and unprocessed food of confectionery and snacks boost the largest market share, Meat, bread and grain products follow... Food is generated as a whole. Global revenue in 2020 is $8.0 trillion. Among the countries surveyed, the Chinese consumed the most food in his 2020. In the market drivers section, total consumer spending. The forecast predicts high growth rates for the home and outdoor market. But foodservice continues to grow in its importance due to lifestyle changes. Also, the rise of private labelled brands have squeezed the margins of brand manufacturers. Retailers compete for a higher share of product sales. Consumer Insights from Statista's Global Consumer Survey shows high marks. Consumer interest in food is high dealing with food issues in online.

Relevant target groups are trying to avoid or reduce meat consumption. Evaluate other animal products and the preference of many consumers for local and regional products natural food. Physical food retail (supermarkets and hypermarkets) will remain. A major sales channel for groceries as e-commerce belongs to this category still relatively underdeveloped. Food is still humanity's final frontier online retail. e-commerce companies such as Amazon Traditional players like Walmart are looking to conquer it with new channels. Convergence strategy and technology are seamlessly intert-wined for networked devices. By sales: Swiss Nestlé, American PepsiCo, Mondelez International and Danone are the most relevant key players among international companies. Brand manufacturer in the food industry. These players are all trying to adapt better options for you and realize growth or Cost savings primarily from recent mergers and acquisitions. Trends chapter highlights grocery stores as retailer's choice. Enrich your business with experience offerings and open up high-margin gastronomic offerings. Another trend is key to channel convergence Promote online grocery retail. Connected devices such as Amazon can be a partial distraction from grocery shopping Active concern in the background. Finally, clean eating movements, As an opportunity to connect with consumers, An unprecedented interest in food.

The Indian food industry is known for its phenomenal growth, increasing its contribution to the global food trade every year. The Indian food sector has become a fast growing and profitable sector due to its enormous value creation potential. The Central Government of India, through the Ministry of Food Processing Industries (MoFPI), is making every effort to encourage investment in this business. Approved proposals for joint ventures (JVs), foreign cooperation, industrial licenses, and 100% export-oriented entities. As a result of urbanization, the acceptance of packaged ready-to-eat foods is increasing, and so is the demand for processed or packaged ready-to-eat/pre-cooked foods. A major producer of spices, essential oils, seasonings and pulps, India is the second largest food producer in the world. With diverse agro climatic conditions, India has manufacturing advantages in many agricultural products with potential for cultivation.

India is the sixth largest food and grocery market in the world, accounting for 70% of retail sales. The Indian gourmet food market is currently valued at USD 1.3 billion and growing at a compound annual growth rate (CAGR) of 20%. Using extreme technology has been a boon to exponential growth. Online food delivery platforms such as Food Panda, Zomato and Swiggy have also increased his per capita income in the country. The online grocery delivery industry grew 150% year over year. According to the Department of Industrial Policy and Promotion (DIPP), India's food processing sector received approximately $7.54 billion worth of Foreign Direct Investment (FDI) during the period from April 2000 to March 2017.

Some of the most significant recent investments in this space include:• According to the Ministry of Food Industry, Amazon will enter the food retail industry in India, where he plans to invest $515 million over the next five years. • Parle Agro Pvt Ltd launches Frooti Fizz, the successor to the original Mango Frooti, to be sold in his 1.2 million stores nationwide with the aim of increasing annual sales. US-based food company Cargill Inc to double its brand business in India by 2020, doubling its retail store count to nearly 800,000 stores and growing market share in the sunflower oil category Aiming to be the leader of the country. Mad over Donuts (MoD) has outlined plans to expand its operations in India by opening 9 new his MOD stores by March 2017. Uber

Technologies Inc has invested in several cities and regions to plan the launch of his UberEATS, a food delivery service to India.

REVIEW OF LITERATURE

The food industry has a potential and strategic role in keeping customers happy by improving customer satisfaction Availability, access and quality of food consumption. The food industry has certain characteristics. Daily necessities, i.e. perishables, bulk items, seasonal items. Also as a raw material for agricultural products. The quality is different. Therefore, proper handling is required depending on the type of product and the corresponding handling Corresponding typical features (Hariyadi P., 2012).

The food industry has characteristics that distinguish it from other processing industries. According to Mackintosh et al. (2010) there are several factors for distinguishing foods. From industry to other manufacturing, chemical changes, maturation cycle/retardation and food. These differences make the production system of the food industry unique flat. Therefore, a study of the relevant literature on production systems in the food industry is required. In the light of the above literatures reviewed, current study focuses on studying the relationship between revenue generated by the food industry and price per unit of food sold.

RESEARCH METHODOLOGY

The present research focuses on analyzing if the revenue is influenced by the volume (in kilograms) of various categories of food sold in the food market and the price per unit of each category of food under consideration for the study. The research study is based on time series secondary data collected from published sources.

Period of study: April 2014- March 2022

Tools of analysis: The data so collected is presented as a graph and described as a part of Descriptive statistical analysis and for the inferential statistical analysis, regression equation fit using OLS technique

OBJECTIVES OF THE STUDY

The study aims at throwing light on the Indian food market before and after the covid - 19, with special reference to the Revenue generated and the factors influencing the same – Volume by segment (in millionKilograms) and the price per unit.

SCOPE OF THE STUDY

Food products as Fresh Food, Processed food, and pet have been considered for the study

LIMITATIONS

The study does not consider food under the category of food supplement and out-of-home consumption

HYPOTHESIS

1. There is no significant association between revenue generated by the food market and the Volume of food sold and the price per unit sold

RESULTS AND DISCUSSION

Indian food industry after Covid-19, the food industry produces 3% of India's GDP and is also the largest employer with over 7.3 million employees. The industry has suffered losses due to the nationwide lockdown. To overcome these challenges and become profitable again, the industry has adopted various techniques since lockdowns were lifted. COVID hygiene protocols are emerging in the industry to earn customer trust and bring back regular revenue. Hygiene Standards Safety issues have been a major concern for consumers as restaurants have gradually opened. To combat this, all major food delivery apps have started mentioning restaurant hygiene standards on their platforms. Temperature controls, frequent sanitization, mandatory masks and secure packaging mechanisms are new to the food industry. It's the standard. The Food Safety and Standards Authority of India (FSSAI) has issued a 48-point checklist of hygiene ratings for restaurants to follow.

Contactless solution - The industry has learned to invest in customer-centric technology to get business back. Contactless guest engagement could become an industry priority, and digital payment options could become the new normal of hospitality. Gourmet street food brands Indians are known for their love of street food.

Although cleanliness was a major concern, street food declined rapidly. This trend may continue to affect the industry months after the pandemic. Many fine dining restaurants are switching from in-dining to delivery services.

Many companies have started moving to cloud his kitchen model. This significantly reduces infrastructure costs and provides connectivity to food aggregators that offer online ordering and delivery options for customer convenience.

Average Year on Year Percentage price per unit Change with CPI of

| .	Mean	Median	Std. Dev.	Skewness	Kurtosis
CPI	108.35	105.9	20.35	0.09	1.84
Baby Food	109.61	108.85	26.99	0	1.77
Bread & Cereal Products	108.63	106.7	22.53	0.05	1.82
Confectionery & Snacks	106.59	102.4	14.04	0.22	2
Convenience Food	109.69	108.1	24.36	0.05	1.79
Dairy Products & Eggs	106.21	103.2	17.5	0.04	1.97
Fish & Seafood	110.37	108.2	22.78	0.12	1.77
Fruits & Nuts	109.28	107	21.86	0.1	1.81
Meat	111.18	109.35	24.57	0.11	1.74
Oils & Fats	109.31	106.75	21.01	0.16	1.77
Pet Food	109.27	106.75	20.94	0.12	1.82
Sauces & Spices	112.28	111.23	21.78	0.06	1.96
Spreads & Sweeteners	116.23	110.26	21.68	0.14	1.72
Vegetables	142.24	132.63	21.92	0.23	1.86

Source: Analysis based on data collected from Statista

From the Table1 , above, it can be said that the mean, median value lies between 100 to 150, the standard deviation is more on baby food, the skewness value is less than 1 which shows that the distribution is left skewed and the kurtosis shows more than 1 which implies that the distribution is leptokurtic. This shows that all the above considered categories of food are distributed across.
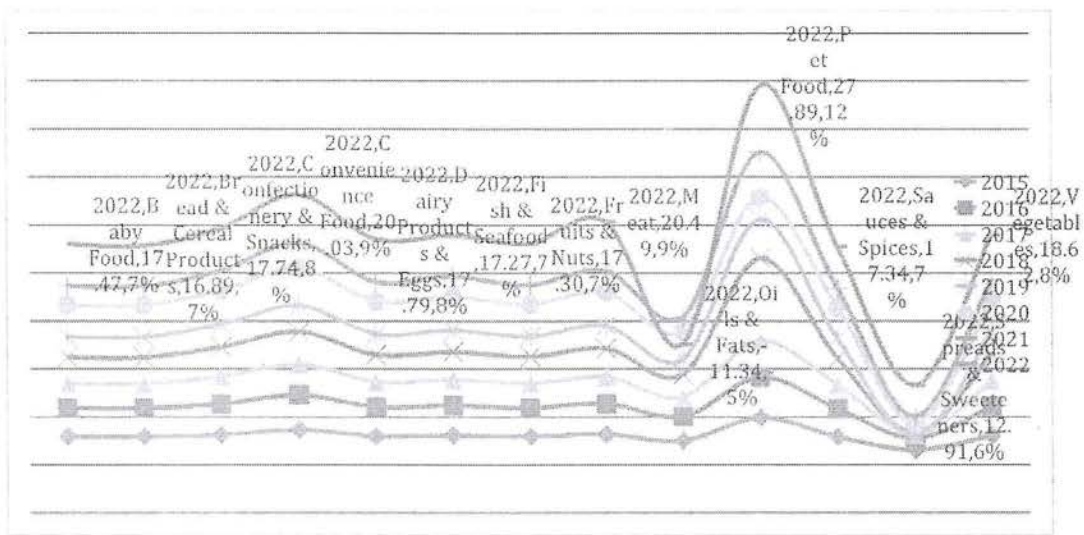
Figure1 AVERAGE REVENUE PER CAPITA in thousand INR (₹)
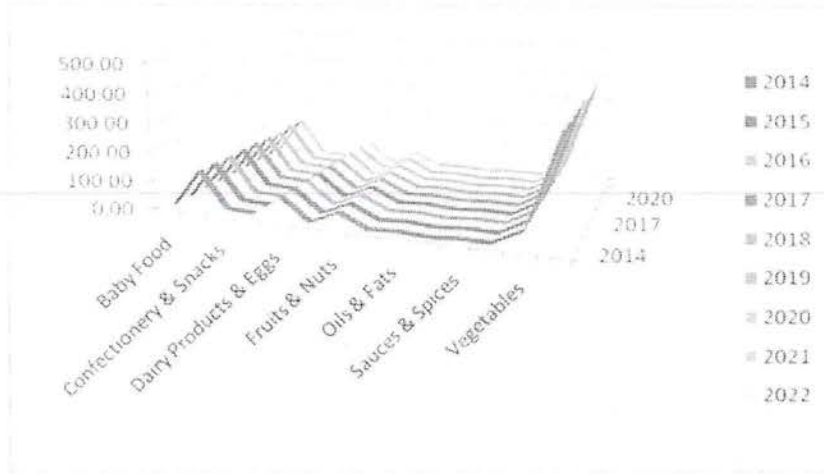
Source: Figure based on data collected from Statista

The above figure shows the revenue percapita of food on all categories. From the figure, it can be inferred that, the average revenue per capita of food, all categories are on the rise Year on Year.

Figure 2 REVENUE CHANGE BY SEGMENT in percent

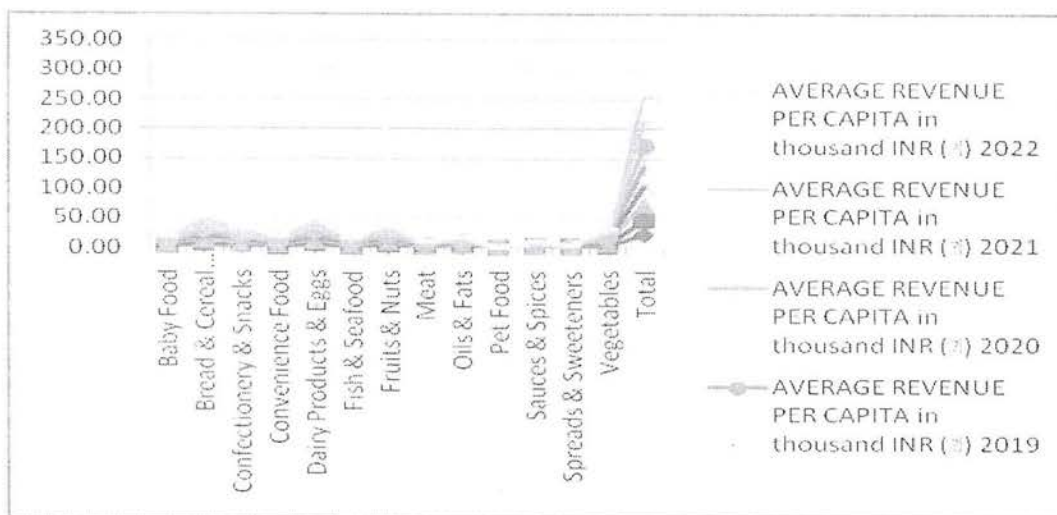Source: Figure based on data collected from Statista

Figure 2 above, reveals the revenue change of all food categories under consideration. It can be seen that revenue percentage share of each of the category is on a rise.

AVERAGE REVENUE PER CAPITA in thousand INR (₹)

Source: Figure based on data collected from Statista

The YoY average revenue per capita of the Food Market, India is also seen to be on the rising trend. This can be seen in the above graph.

REVENUE COMPARISON in trillion INR (₹)
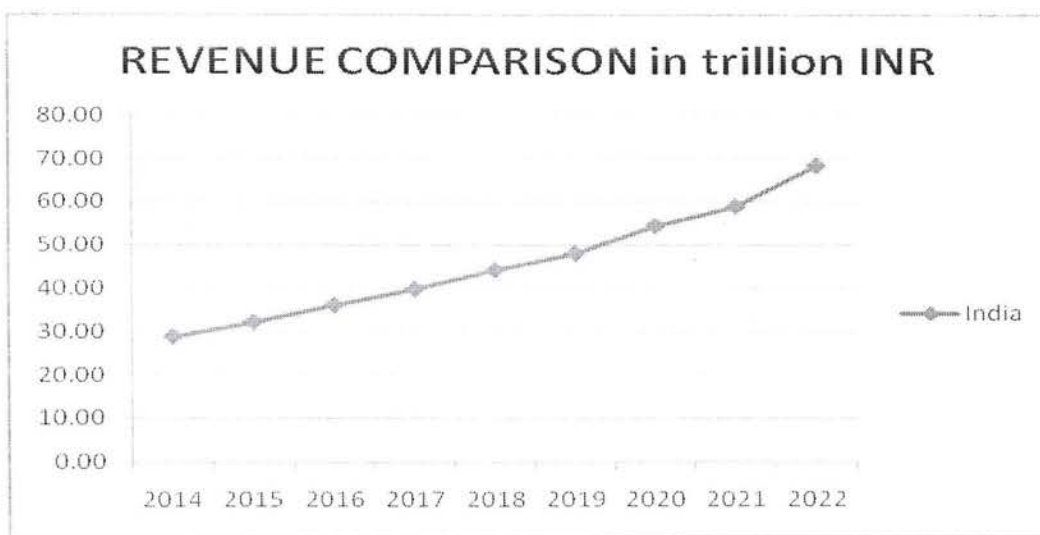
Source: Figure based on data collected from Statista

The YoY revenue of the Indian Food Market's contribution to the global economy is seen to be on the rising trend. Much of this can be attributed to online sales and online payment techniques adopted. The Indian food market revenue was seen to be rising

even during the lockdowns imposed as a measure to curb the spread of Covid-19 in 2020-2021.

HYPOTHESIS TESTING

H0: There is no significant association between revenue generated by the food market and the Volume (in million kilograms) of food sold and the price per unit sold

Ha: There is a significant association between revenue generated by the food market and the Volume (in million kilograms) of food sold and the price per unit sold

Table 2 Regression Analysis

Dependent Variable: REVENUE				
Method: Least Squares				
Sample: 2012 2022				
Included observations: 14				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-363.4823	7.857569	-46.25887	0.002
VOLUME	1.403301	0.040918	34.29514	0.0012
PRICE	260.9596	9.994213	26.11107	0.004
R-squared	0.728771	Mean dependent var		364.5589
Adjusted R-squared	0.678547	S.D. dependent var		109.8521
S.E. of regression	4.187388	Akaike info criterion		5.889441
Sum squared resid	192.8764	Schwarz criterion		6.026381
Log likelihood	-38.22608	Hannan-Quinn criter.		5.876764
F-statistic	4467.959	Durbin-Watson stat		0.570173
Prob(F-statistic)	0.007			

Source: Estimation based on data obtained from statista

From the table we concluded that there is a significant percentage of revenue generated by the food market. R^2 shows the 72% which implies that the proportion of variance in the dependent variable is highly correlated with the independent variable. The revenue from the food market shows more contribution towards Economic development. The above table shows a positive association between Revenue generated from the Food

Market in India and its dependent variable viz., Volume and Price per unit. Hence the authors are unable accept the null hypothesis and conclude that There is a significant association between revenue generated by the food market and the Volume of food sold and the price per unit sold

- The Food Market Yielded over USD 963 bn in 2022 and the industry is projected to grow an annually 7.23% (CAGR 2023-27)

- The largest segment of the industry – Bread and Cereal products, contributing to a volume of a little less than USD 175 bn in 2023

- As per the population estimates, US$678.70 in revenue is produced per person in 2023.

- By 2023, 1.2% of the entire income in the food business will come from online sales.

- By 2027, the Food market is anticipated to reach a volume of 663,725.9mkg. By volume, the food market is anticipated to rise by 6.0% in 2024.

- In 2023, it is anticipated that the average volume per person in the food market will be 419.25kg.

CONCLUSION

The Indian food industry is undergoing change with digitalization at its core. Creative service delivery will be introduced, health and safety standardized, and operations less labor-intensive. All these changes improve the customer experience and set new standards for the industry in the post-corona era. The variable revenue generated from the food market is strongly associated with the dependent variables - volume of food sold and also the price per unit at which they are sold.

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