

An Empirical Analysis of Determinants, Entrepreneurial and Market Dynamics of Micro-Food Processing Units

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Abstract:

The micro food processing units play an important and very significant role in the growth and development of agriculture and rural area. It helps to provide large-scale employment opportunities with low investment, reducing the unemployment and poverty among the people living in the rural area. It helps to supply raw material, semi-finished material, components and intermediate goods which helps to strengthen industrial linkages and supply chains. The study is based on the exploratory and analytical research area. This research study was based on the primary data as well as secondary data. Primary data has been collected through the self-structured questionnaire using a Google form. Researchers have used descriptive statistical methods for analysis of data and Chi-square test has been used for testing of hypotheses. The study has found that majority of selected respondents were motivated to start the micro-food processing industries due to earning profit and followed by self-reliance, value addition to agriculture products, utilization of the family members in selected sample area in 2025. Consumer income, price of product, test or preference, market requirement and effects of existing products in the market are mostly determining factors of the demand for the products produced in micro food processing units in selected sample area in 2025. Researchers have concluded that micro food processing units play a significant role in growth and development of agriculture sector and boost the development of rural area.

Key Words: *Micro Food Processing Unit, Cost-effective methods, Motivational, Economic and Social Factors.*

Introduction:

Micro, Small and Medium Enterprises plays an important and very significant role in the growth and development of agriculture sector and boost the development of the rural area. It also helps to create large-scale employment opportunities with low investment and provides the employment opportunities to skilled, semi-skilled and unskilled workers. It also plays very significant role in the reducing the unemployment and poverty among the people living in the rural area. MSMEs make a significant contribution substantially to the Gross Domestic Products and support to balanced and sustainable growth. It also acts growth engines by encouraging production and services at grassroots levels. Most of the MSMEs are located in rural, semi-urban and backward regions so that it helps to reduce regional disparities and check the migration from the rural to urban area as well as promoting the industrial decentralization (Jha, M.K., Srivastava, V.K., and Mandal, I. 2022). Larger industries are supported by MSMEs, which serve as ancillary and feeder units. It helps to supply raw material, semi-

finished material, components and intermediate goods which helps to strengthen industrial linkages and supply chains. MSMEs helps and encourage self-employment and entrepreneurship as well as provides the wide opportunities to first generation entrepreneurs, women and youth living in rural, semi-urban and backward region. Today, MSMEs are significantly contributing to export of semi-finished goods, service goods and manufacturing goods that helps to enhance the India's presence in the global market. MSMEs earn foreign exchange for the country. It also encourages innovation, creativity and product diversification that helps to make more flexible and adaptable to market change. It can easily adopt the recent developed technology and mechanization faster on a smaller scale. MSMEs helps to promote inclusive and sustainable growth and development among the marginalized sections of society that encourages use of local resources and skills (Michel, M., Eldridge, A.L., Hartmann, C, Klassen, Ingram, J., Meijer, G.W. (2024). MSMEs play a vital role in the development of the rural economy by generating local employment through the establishment of agro-

based and micro-food processing industries rooted in the agriculture sector. These enterprises enhance farmers' income through value addition. Further, MSMEs contribute to social and economic stability by creating income and employment opportunities, thereby improving the overall standard of living of the people (*Divyathejomurthy, V. 2025*).

1. Meaning Of Micro-Food Processing Industries:

Micro-food processing industries refers to small-scale enterprises engaged in the cleaning, sorting, grading, quality checking, crushing, drying, milling, preserving, packaging, labelling, quality control, hygiene practices, marketing and distribution. It helps to adding the value of agriculture and horticulture products and operating with the very low capital investment and limited manpower. It is based on the raw material from the agriculture sector, using the very simple technology and equipment, functioning with very few people, serve local, regional and global markets and major aim to add value for agriculture products, reduce post-harvest losses and increase the farmers' income.

According to Ministry of Micro, Small and Medium Enterprise, Micro-food processing enterprise is one where investment in plant and Machinery does not exceed ₹ 1 crore and annual turnover does not exceed ₹ 5 crore. Micro-food processing enterprises include papad, pickle, chutney, flour mills, spice grinding units, dairy-based products, fruits, vegetable processing units, bakery and snack-making units etc.

2. Literature Review:

The Food-processing sector plays an important role in to contribute 7.93 per cent in gross value added (GVA) to manufacturing and 8.45 per cent GVA to agriculture sector. it shows growing the importance of the food-processing industries in India's economy (*S.Kathirval, B. Haribalan., and P. S. Neya., 2025*). Micro-food processing industries, as part of non-agriculture activities, offer an effective means to reduce unemployment and poverty in the agriculture sector. It helps to reduce the unemployment and poverty and boost the income and generating the income in Kamrup district in Assam (*Kalita, G., Singha, S.S., 2020*). The food-processing industries

helps to bridge the gap between the agriculture production and the entrepreneurship development. Government support like financial grant, technical support, infrastructure facilities and business support helps to boost growth and development in food-processing industries in Manipur (*Raleng, A., Singh, N.J. 2021*). In India, food-processing industries were continuously growing with the government support, but, it remains highly fragmented and underdeveloped in processing of perishable foods. There were having various challenges in front of food processing industries such as low processing levels, high post-harvest losses, declining exports and FDI, poor infrastructure facilities and skill gap continuous to limit its global competitiveness (*Sakina, M. 2019*). MSMEs in the food processing industries play an important and very crucial role in balanced rural and urban development in India by promoting industrial growth as well as utilization of local resources. There is continuously increasing the demand for healthy foods with fewer preservations that creates the new opportunities for food-processing industries. There were continuously increasing the food processing industries, benefiting the consumers, boosting the economy and improving the livelihood of people living rural area (*Choudhury, N., and Ghosh, D, 2025*).

3. Statement Of the Research Problem:

Despite the growing the importance and significance of the micro food processing industries and helps to generate the employment opportunities, promoting processing units, promoting the rural entrepreneurship, adding the value for agriculture products, enhancing the rural development in the selected sample area. The various factors influencing the individuals to start micro food processing units are not yet adequately understood. The demand for various products produced in the micro food processing unit is influenced and determined by the various economic, political, environmental, market dynamics and consumer-related factors. However, their systematic and scientific analysis remain limited in the existing literature. The existing micro food processing units are facing the various challenges and constraints in production activities, financial assistance,

marketing, infrastructure facilities and regulatory compliance which are adversely affecting upon the development and their sustainability. Therefore, there is need to extensive analysis of factors motivating people to start micro food processing units, explore the cost-effective methods, to examine the various determinants of demand for their products and to understand the various challenges and problems faced by these micro-food processing units in selected sample area.

4. Research Questions of the Present Research Study:

These are given below:

- Which factors influence people to start micro food processing units?
- Which factors determines the demand for the products of Micro-food processing units?
- Which are the sources of finance at the initial stage of micro processing units?
- Which are the cost-effective methods used in production processes of Micro Food Processing Units?
- What is importance of micro-food processing industries?

5. Scope of Present Research Study:

The present research study aims to examine the various factors influencing individuals to establish micro-food processing units in the selected sample area. It also seeks to analyses the determinants of demand for the products manufactured by these Micro food Processing units. Further, the focuses on identifying the sources of finance available at the initial stage of micro processing units, exploring cost-effective production methods, assessing the importance of micro food processing units in the study area and examining the key problems faced by these units during the specified period.

6. Objectives of the Present Research Study:

There are given below.....

1. To identify the factors influencing people to start micro food processing industries in selected sample area.
2. To identify the factors determining the demand for micro food processing units in selected sample area.

3. To examine the various sources of finance at the initial stage of micro processing units in selected sample area.
4. To identify the cost-effective methods used in the selected sample area.

7. Hypothesis:

First Hypothesis:

H₀: There is no significant association between the selected factors and the demand for products of micro food processing units in selected sample area.

H₁: There is significant association between the selected factors and the demand for products of micro food processing units in selected sample area.

Second Hypothesis:

H₀: There is no significant relationship between the motivational factors and the establishment of micro-food processing units in selected sample area.

H₁: There is significant relationship between the motivational factors and the establishment of micro-food processing units in selected sample area.

Hypothesis Third:

H₀: Micro food processing units do not have significant importance in terms of agriculture, economic and social development in selected sample area.

H₁: Micro food processing units have significant importance in terms of agriculture, economic and social development in selected sample area.

8. Research Methodology:

The present research study is based on the analytical and exploratory research investigation. The study tried to explore the various factors motivate the individuals to start micro food processing unit, identify the various factors that determine or influence the demand for product produced in the micro-food processing industries and also explore significance of micro food processing industries. Here, primary data and secondary data has been used. Primary data has been collected through a self-structure questionnaire Using Google form. Owner of the Micro food processing industries were the respondents of the present research investigation. Researchers have used Tara Yamane sample

selection formula that helps to compute smallest number of samples required to meet the desired statistical constraints. Researchers have selected 400

samples which required 95 percent confidence level that the real value is within 5 percent of the measured value.

Sr. No	Tehsil	No of Micro Food processing industries	Selected Samples
1	Ajara	543	86
2	Bhudargad	111	18
3	Chandgad	327	52
4	Gadhinglaj	152	24
5	Gaganbavada	8	1
6	Hatkangale	309	49
7	Kagal	177	28
8	Karvir	419	67
9	Panhala	104	17
10	Radhanagri	131	21
11	Shahuwadi	45	7
12	Shirol	187	30
	Total	2513	400

Source: District Udyog Bhavan, Kolhapur. (2022)

In short, researchers have selected 400 micro food industries from Kolhapur district for the present research investigation. Researchers have purposively selected the Kolhapur district in order to find out the present status, factors motivate the individuals to start micro food processing industries, explore the various factors influence the demand for products produced in micro food processing industries and significance of the micro food processing units in selected sample area. Researchers have also focused on the various Micro food processing industries in Kolhapur district such as fruits and vegetables, nuts, spices, bakery products, grain mill products, egg powder, samber

powder, dairy products, prepared animal feeds, vegetables and animal oils, fats, processing and preserving of meats, sugarcane products, macaroni noodles, couscous and similar farinaceous products, papads and appalam products in selected investigation area. Researchers have used descriptive statistical methods for analysis of data. MS-Excel and SPSS software for analysis of data.

9. Limitations Of Present Research Study:

The study is limited to micro food processing industries located in Kolhapur district all the all the results are solely based on the feedback provided by the respondents.

10. Data Analysis and Interpretation:

10.1 Demographic Profile of Selected respondents (2025)

Location-Wise Classification Of Selected Respondents			
Sr. No	Location	Frequency	Percentage
a)	Rural/ Remote Area	327	81.7
b)	Semi-Urban Area	26	6.4
c)	Urban Area	48	11.9
	Total	400	100
Gender-Wise Classification Of Selected Respondents			
Sr. No	Gender	Frequency	Percentage

a)	Male	126	31.6
b)	Female	274	68.4
c)	Transgender	0	0.0
	Total	400	100
Marital-Status Wise Classification Of Selected Respondents			
Sr. No	Marital Status	Frequency	Percentage
a)	Married	336	84.1
b)	Unmarried	54	13.6
c)	Widow/ Divorced	9	2.3
	Total	400	100
Age-Wise Classification Selected Respondents			
Sr. No	Age Of Respondents	Frequency	
a)	More Than 18 And Less Than 30	107	26.7
b)	30-40	256	64.1
c)	40-50	28	7.0
d)	More Than 50	9	2.3
	Total	400	100

Source: Field Survey, 2025.

Table no 02 depicts demographic profile of selected respondents from selected sample area at given period of time. Researchers selected 400 respondents, of whom majority of resided in rural areas (81.7 percent), followed by urban area (11.9 percent) and semi-urban area (6.4 percent) in the selected samples area during the study period. In case of gender, majority of selected respondents were female (68.5 percent) and remaining male (31.6 percent) in selected sample area at given time. In case of marital status of the respondents, majority of selected respondents were married (84.1 percent), followed by unmarried (13.6 percent) and Widow/ Divorced (2.3 percent) in selected sample area at given period. In short, majority of selected respondents were living in rural area and belonged to male categories. Majority of selected respondents were married and belonged to 30-40 years age group

(64.1 percent) in selected sample area at given period of time.

10.2 Educational Qualification of Selected Respondents (2025)

The education plays an important and very significant role in the growth and development of micro food processing industries that helps to adopt advanced technology, more capable in management skill, better in adoption of innovative marketing strategies, access to finance, supports to experimentation, value addition and diversification of food products. Overall, educational qualification enhances the efficiency, sustainability, productivity and growth of the micro food processing industries.

Table No: 03 Educational Qualification of Selected Respondents (2025)			
Sr. No	Educational Qualification	Frequency	Percentage
a)	Illiterate	11	2.9
b)	Primary Education (I To IV Std)	7	1.7
c)	Secondary Or Higher Secondary Education (V To XII)	136	34.0
d)	Graduate	187	46.9
e)	Post Graduate	41	10.3
f)	Technical Or Professional Education	17	4.3
g)	Other	0	0.0
	Total	400	100.0

Source: Field Survey, 2025.

Table no 03 indicates the educational qualification of selected respondents in selected sample area at given period of time. Researchers selected 400 respondents, of whom majority of selected respondents was graduated (46.9 percent), followed by secondary or higher secondary education V to XII (34.0 percent), post graduate (10.3 percent), technical or professional educations (4.3 percent), illiterate (2.9 percent) and primary education I to IV Std (1.7 percent) in selected sample area at given

period of time. In conclusion, majority of selected respondents were graduated and taken secondary and higher secondary education in selected sample area at given period of time.

10.3 Respondents Response on The Training and Status of Ownership (2025)

The study has focused on the respondent's response on the taken training, ownership and certification of micro-food processing industries in selected sample area at given period of time.

Table No: 04 Respondents Response on The Training and Status of Ownership			
Sr. No	Response	Mark	Frequency
A.	Taken Training Before Starting Food-Processing Unit		
a)	Yes	179	44.8
b)	No	221	55.3
	Total	400	100.0
B.	Status Of Ownership-Wise Classification		
a)	Owned	337	84.3
b)	Rented	63	15.8
C.	Total	400	100.0
C.	Certification of Micro-food Processing Industries		
a)	Yes	400	100
b)	No	0	0
	Total	100	100
Source: Field Project, 2025			

Table no 04 shows respondents' response on the training, status of ownership and certification of micro-food processing industries in selected sample area at given period of time. Researchers observed that majority of selected respondents (55.3 percent) were not taken training before starting the micro

food processing industries in sample area in 2025. In case of ownership, majority of selected respondents were having their own micro food processing industries (84.5 percent) and 100 percent of selected respondents has obtained a certificate for micro food processing industries in selected sample area in 2025.

10.4 Respondents Response On Funding Sources At Initial Stage Of Micro Scale Industries In Selected Investigation Area (2025)

Table no:05 Respondents Response On Funding Sources At Initial Stage Of Micro food Processing Unit In Selected Investigation Area (2025)			
Sr. No	Response	Frequency	Percentage
a)	Personal Savings	97	24.3
b)	Contribution From Family And Friends	163	40.8
c)	Bank Loan	57	14.3
d)	Special Scheme/Funding For Women From Government	83	20.8
e)	Some Other Sources	0	0.0
	Total	400	100.0
Source: Field Survey, 2025.			

The study has focused on the various sources of the funding sources at initial stage of the micro food processing industries in selected sample area in 2025. The study has found various sources of the fund at initial stage of the micro food processing industries in sample area such as personal saving, contribution from family and friends, bank loan, special scheme, government funding and some other sources like money laundering, black money, tax evasion and others.

Table no 05 indicates the respondent's response on the funding sources at initial stage of micro scale industries in selected investigation area in 2025. Researcher found that majority of selected respondents were taken fund from family and friends (40.8 percent) at initial stage of micro food processing units, followed by personal savings (24.3 percent), special scheme and funding for women from government (20.8 percent) and bank loan (14.3 percent) in selected sample area in 2025.

10.5 Respondents Response on Motivations Behind The Establishment Of Micro-Food Processing Units (2025)

Sr. No	Response	Frequency	Percentage
	Start Own Business Or Become Entrepreneur	383	95.8
	Self-Reliance	389	97.3
	Growing The Market Demand	373	93.3
	Utilization Of Idle Time.	345	86.3
	Earning Profit	395	98.8
	Technical Education	294	73.5
	Interest In Manufacturing	284	71.0
	Available Of Local Raw Material	379	94.8
	Low Capital Requirement	329	82.3
	Value Addition To Agriculture Products	387	96.8
	Utilization of the family members	386	96.5
	Access of the local market	365	91.3
	Multiple Responses= 400		

Source: Field Survey, 2025.

The study has focused on the various motivational factor that motivate individual to start or establishment of micro food processing units in sample area. The study has found various factors influence the individual to start micro food processing units in selected sample area such as passion to become an entrepreneur, self-reliance, growing the market, idle time utilization, earning profit, technical education, interest in manufacturing, available of local raw material, low capital requirement, value addition to agriculture products, utilization of the family product and access of local market in selected sample area at given time period.

majority of selected respondents were motivated by earning profit to start own business or become earning the profit (98.8 percent) and followed by self-reliance (97.3 percent), value addition to agriculture products (96.8 percent), utilization of the family members (96.5 percent), start the own business or become entrepreneurship (95.8 percent), availability of local raw material (94.8 percent), access of the local market (94.8 percent), growing the market demand (93.3 percent), utilization of idle time (86.3 percent), low capital requirement (82.3 percent), technical education (73.5 percent) and interest in manufacturing (71 percent) in selected sample area. In short, majority of selected respondents were motivated to start the micro-food processing industries due to earning profit and followed by self-reliance, value addition to agriculture products, utilization of the family members, start the own business or become

Table no 06 depicts the respondents' response on the motivations behind the establishment of Micro-food processing units in selected sample area at given period of time. Researcher has observed that

entrepreneur, availability of local raw material, growing the market demand, access of the local market, utilization of idle time, low capital requirement, technical education and interest in manufacturing in selected sample area at given period of time.

10.6 Respondents Response on the Factors Determining the Demand for Micro-food Processing Units (2024)

The study has focused on the respondents’ response on the factors determining the demand for micro-

food processing units such as urbanization and market access, tests or preference, quality of products, product variety and innovation, packaging’s, market requirement, income distribution, effects of existing products in the market, education and awareness, customers’ expectations, customer requirement, cost/price ratio, consumer income, brand image and local trust and price of the products in selected sample area at given time.

Table No: 07 Respondents Response On The Factors Determining The Demand For Micro Food Processing Units (2025)

Sr. No	Statement	Frequency	Percentage
1	Urbanization and market Access	372	93.0
2	Tests Or Preference	389	97.3
3	Quality Of Products	369	92.3
4	Product variety and innovation	346	86.5
5	Packaging’s	357	89.3
6	Market Requirement	387	96.8
7	Income distribution	384	96.0
8	Effects Of Existing Products In The Market	387	96.8
9	Education and Awareness	385	96.3
10	Customers’ Expectations	386	96.5
11	Customer Requirement	379	94.8
12	Cost/Price Ratio	367	91.8
13	Consumer Income	398	99.5
14	Brand image and local trust	382	95.5
15	Price of the Product	397	99.3
Multiple responses: 400			

Source: *Field Survey, 2025.*

The table 07 depicts respondents’ response on the factors determine the demand for micro food processing units in selected sample area at given period of time. The study found that majority of selected respondents (99.5 percent) demanded micro-food processing units’ products due to their level of income and followed by the price of the product (99.3 percent), tests or preference (97.3 percent), market requirement (96. 8percent), effects of existing products in the market (96.8 percent), customers’ expectations (96.5 percent), educations and awareness (96.3 percent), income distribution (96 percent), brand image and local trust (95.5 percent), customer requirement (94.8 percent),

urbanization and market access (93 percent), quality of products (92.3 percent), cost/ price ratio (91.8 percent), packaging’s (89.3 percent) and product variety and innovation (86.5 percent) in selected sample area in 2025. Researchers have concluded that consumer income, price of product, test or preference, market requirement and effects of existing products in the market are mostly determining factors of the demand for micro food processing units in selected sample area in 2025.

10.7 Respondents Response on Using of Cost Effective Methods In Selected Micro Food Processing Units (2025)

The study has focused on the respondents' response on the using of cost effective methods in selected micro-food processing units in selected sample area in 2025. The study observed that there were having various cost-effective methods in selected micro-

food processing units such as advanced technology, efficient skilled labour utilization, quality raw material, marketing and advertisement, use of locally availability raw material, adoption of appropriate low-cost technology, reduction of wastage and by-product utilization, quality control and standardization, training and skill development and inventory management in selected sample area in 2025.

Sr. No	Response	Frequency	Percentage
	Advanced Technology	364	91
	Efficient Skilled Labor Utilization	383	95.8
	Quality Raw Material	373	93.3
	Marketing And Advertisement	382	95.5
	Use of locally availability raw material	372	93.0
	Adoption of appropriate low-cost technology	367	91.8
	Reduction of wastage and by-product utilization	359	89.8
	Quality control and standardization	379	94.8
	Training and skill development	383	95.8
	Inventory Management	387	96.8
	Multiple Response: 400		

Source: *Field Work, 2022.*

The study revealed that the majority of the selected respondents adopted proper inventory management as a cost-effective method (96.8 percent), and followed by the efficient skilled labour utilization (95.8 percent), training and skill development (95.8 percent), marketing and advertisement (95.5 percent), quality control and standardization (94.8 percent), quality raw material (93.3 percent), use of locally availability raw material (93 percent),

adoption of appropriate low-cost technology (91.8 percent), and reduction of wastage and by-product utilization in selected sample area in 2025.

In short, inventory management, efficient skilled labour utilization, training and skill development, marketing and advertisement, quality control and standardization were used as cost efficient methods in micro food processing units in selected sample area in 2025.

10.8 Respondents Response on the Importance of the Micro-Food Processing Units (2025)

Sr. No	Statement	Frequency	Percentage
1	Use Of Agriculture Raw-Material	378	94.5
2	Increase The Income Level Of Farmers	389	97.3
3	Generate The Employment Opportunities	395	98.8
4	Reduce The Malnutrition	324	81.0
5	Crop-Diversification	376	94.0
6	Promote Export Of Processed Food Products	382	95.5
7	Value Addition To Agriculture Produce	386	96.5
8	Reduction Of Post-Harvest Losses	382	95.5
9	Rural Industrialization	383	95.8
10	Income Diversification For Farmers	389	97.3

11	Support To Local Economy	382	95.5
12	Women Empowerment	387	96.8
13	Availability Of Affordable Food Products	383	95.8
Source: Field Survey, 2025.			

The study has focused on the respondents’ response on the importance of micro food processing units in selected sample area in 2025. The study observed that there were having importance of the micro-food processing units such as use of agriculture raw-material, increase the income level of farmers, generate the employment opportunities, reduce the mal-nutrition, crop-diversification, promote export of processed food products, value addition to agriculture produce, reduction of post-harvest losses, rural industrialization, income diversification for farmers, support to local economy, women empowerment, availability of affordable food products in selected sample area (*Lakshmi,H.R., Hanumantharaju,K.N. 2017*).

Table no 09 depicts respondents’ response on the importance of the micro-food processing units in selected sample area in 2025. The study found that majority of selected respondents started micro food processing units to generate the employment opportunities (98.8 percent), and followed by increase the income level of farmers (97.3 percent), income diversification for farmers (97.3 percent), women empowerment (96.8 percent), value addition to agriculture produce (96.5 percent), rural industrialization (95.8 percent), availability of affordable food products (95.8 percent), promote export of processed food products (95.5 percent), reduction of post-harvest losses (95.5 percent), support to local economy (95.5 percent), use of agriculture raw-material (94.5 percent), crop-diversification (94 percent), and reduce the malnutrition (81 percent) in selected sample area in 2025. The study found that majority of selected micro food processing units were started due to generation of employment opportunities, increase the income level of farmers, diversification of income of farmers, empowerment of women, addition of value to agriculture produce and rural industrialization in selected sample area in 2025).

Testing Of Hypothesis:

First Hypothesis:

H₀: There is no significant association between the selected factors and the demand for products of micro food processing units in selected sample area.

H₁: There is significant association between the selected factors and the demand for products of micro food processing units in selected sample area.

Interpretation:

Here, researchers have collected the primary data on factors determine the demand for the products produced in Micro food processing units in categorical form in selected sample area in 2025. Therefore, researchers have used chi-square (X²) goodness of fit test due to data are based on the frequencies, categories and tried to examines whether observed frequencies significantly differ from expected frequencies. Here, expected frequency (E) is assumed to be equally distributed so that expected frequency per factor = 400/2 =200 (Yes-No Assumption). Given that all observed frequencies range in between of 346 to 398, which are far greater than the expected frequency (200), If $\chi^2_{cal} > \chi^2_{tab} \rightarrow$ Reject H₀ at 5 % level of significance. Therefore, the study found that consumer income, price of the products, taste and preference, market requirement, quality of products, brands image and local trust, urbanization and market access have a statistically significant influence on the demand for products of micro food processing units in selected sample area in 2025.

Second Hypothesis:

H₀: There is no significant relationship between the motivational factors and the establishment of micro-food processing units in selected sample area.

H₁: There is significant relationship between the motivational factors and the establishment of micro-food processing units in selected sample area.

Interpretation:

Here, researchers have applied the X^2 test to determine whether the observed responses differ significantly from expected responses. All the observed frequencies range from 284 to 395, which are much higher than the expected frequency (200). The calculated chi-square value (X^2_{cal}) is therefore greater than the tabulated chi-square value (X^2_{tab}) at the 5% level of significance. $\chi^2_{cal} > \chi^2_{tab}$, the null hypothesis (H_0) is rejected. The rejection of null hypothesis indicates that the motivational factors play an important and very significant role in motivating individuals to establish micro-food processing units such as earning profit, self-reliance, value addition to agriculture products, utilization of family members, starting own business and availability of local raw material in selected sample area in 2025.

Hypothesis Third:

H₀: Micro food processing units do not have significant importance in terms of agriculture, economic and social development in selected sample area.

H₁: Micro food processing units have significant importance in terms of agriculture, economic and social development in selected sample area.

Interpretation:

Here, researchers have applied the X^2 test to determine whether the observed responses differ significantly from expected responses. All the observed frequencies range from 324 to 395, which are much higher than the expected frequency (200). The calculated chi-square value (X^2_{cal}) is therefore greater than the tabulated chi-square value (X^2_{tab}) at the 5% level of significance. $\chi^2_{cal} > \chi^2_{tab}$, the null hypothesis (H_0) is rejected. The rejection of the null hypothesis indicates that micro food processing units play a statistically role in agriculture, economic and social development in selected sample area in 2025. The study reveals that micro-food processing units are perceived as highly important for employment generation, increasing farmers' income, income diversification for farmers, women empowerment, and value addition to agriculture produce, reduction of post-harvest

losses, rural industrialization and support to the local economy in selected sample area in 2025.

Findings:

The study found that the majority of micro food processing units were established in rural areas, followed by urban and semi-urban areas. In the selected sample area in 2025, most of these units were operated and managed by women. The majority of respondents belonged to the 18-40 years age group. Furthermore, most respondents had attained education up to the secondary and higher secondary levels, with a significance proportion being graduates. The study also observed that the majority of selected respondents had established their own micro food processing unit, while remaining respondents operated their units on a rented basis. The majority of selected respondents were collected fund from their family and friends and also using the personal savings at initial stage of starting of micro food processing units in selected sample area in 2025. The study found that various factors were motivating to start micro food processing units, but of which earning the profits, self-reliance, value addition to agriculture products and utilization of family members were greatly motivated to start the micro food processing units in selected sample area in 2025. There were also various factors determining the demand for products produced in micro-food processing units of which level of income, price of products, tests and preference, market requirement and effects of existing products in the market in selected sample area in 2025. Majority of selected respondents were using inventory management, training and skill development, marketing and advertisement, quality control and standardization, advanced technology and quality raw material as cost-effective method in micro food processing units in selected sample area at given time period. The study found that micro food processing units have occupied important place and played very significant role in to generate the employment opportunities, increase the income level of farmers, income diversification for farmers, women empowerment, value addition to agriculture produce and rural industrialization in selected sample area in 2025.

Suggestions:

The study has suggested focus on the district-specific products like sugarcane-based products, milk-based products, dry fruits-based products and spices and also more focused on the one district one product model that helps to build the identity and branding under the Pradhan Mantri Formulation of Micro Food Processing Enterprises scheme in selected sample area. there is also need to develop and strengthen the rural infrastructure such as rural processing units, cold storage facilities, warehouses and logistic chains in order to local conversion of raw agriculture produce into high value added products, reduction in transportation of raw materials, prevents spoilage and post-harvest losses, maintain the product quality and freshness, protects the products from weather damage, facilitates the bulk storage and faster movement of goods from farm to processing unit and market that helps to growth and development of micro-food processing units. The study also suggested that improve the access to finance and subsidies, skill development and training programs as well as need to more focus on the branding, packaging and marketing support, strengthen backward and forward linkages, encourage the women and rural entrepreneurship. The study has also suggested that there is need to adopt sustainable and modern technology and improve the digital integration that helps to bring the better growth and development in micro-food processing industries in selected sample area.

Conclusion:

The study has concluded that micro-food processing industries play an important and significant role in the strengthening the rural economy. It is growing the steadily due to increased demand for processed and packaged foods as well as government support and initiatives. There is continuously increasing the small entrepreneur, women and self-help groups as well as availability of the PMFME scheme that support to food processing industries in selected sample area. There is also continuously increasing the use of local agriculture raw-materials, increased level of income of farmers, continuously increasing the employment opportunities to rural community, helps to reduce the malnutrition, increase the crop

diversification, encourage the women empowerment and support the local economy.

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