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Topic- Demographics Systematic Study Of Impact Of Subsidies And Incentives On Food Processing Unit Holders In Jammu Division.

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ABSTRACT

Subsidies and Incentives play vital effective role in the development of food processing industry. Industries are benefitted in different ways in terms of investment promotion, Job creation, Value addition, strengthening the supply chain, product diversification and many more. In this paper, 215 food processing units were examined among the unit holders of Jammu division, with a sample size of 31 parameters/statements were designed in the form of questionnaire and same were submitted to various respondents. The information collected by questions based on 5-Point-Likert scale which was later tabulated using SPSS. Exploratory factor analysis was used on 31 statements which were later converged into nine prominent factors using statistical tool viz; Government schemes and related subsidies performance. Based on the data collected the variance explained on nine factors is 9.413, with KMO value of 0.771 and Bartlett's test of sphericity value of 3255.861 respectively. For further understanding of impact of factors influencing food processing unit's growth within Jammu Division, two-Way ANOVA test was applied on the collected data to understand impact of factors identified and their relative significance on FPI's in Jammu division. Tables, results and discussions and conclusions were drawn accordingly.

Key Words: Incentives, Subsidies, Food Processing, Factor Analysis.

Introduction

Food processing is a process of transforming agricultural materials into various food types' one form or the other types containing diverse array of products such as fruits and vegetables. For their effective utilisation, establishment of such industrial units is very crucial and paramount importance. These units help in providing employment opportunities thereby helping rural and urban living standards and growth (Bhatia et al., 2020). Subsidies and incentives are means of promoting effective expansion and overall development in food sector. The policies framed from time to time improve value addition and economic growth in general (Imran, 2017). Some ways of providing incentives and subsidies may affect the expansion of the food processing units sector in any region/division

- 1. Providing opportunities to entrepreneurs to develop new food processing unit's expansion in existing old ones by giving benefits/supports in the form of financial aid, tax rebates etc.
- 2. Providing job opportunities to large number rural / urban populations thereby addressing their basic needs.
- 3. Value addition is another way that can be done through processing, packing, and labelling agricultural products, food processors so that it can help farmers by lowering post-harvest losses.
- 4. Identification of potential hubs and strengthening of supply chains.
- 5. Technological up-gradation from time to time improving knowledge and skill enhancement.
- 6. Long term incentive of sustainable activities, empowerment, promotion of entrepreneurs and taking care of food quality measures.

Review of Literature

Imran (2017) explore the available sources of financing horticulture sector in Jammu and Kashmir State. Four districts namely Shopian, Kulgam, Pulwama and Baramulla from Kashmir Valley and district Doda from Jammu Division were selected for collection of data through the questionnaire. Data collected was analyzed with the help of students T-test, Anova, Chi-Square test. The study mainly focused changes in Horticulture sector in pre and post intervention of financial schemes for institutional and non-institutional sources.

Sharma (2011) studied the impact of new industrial policy in overall development of industrial units in SIDCO complex of Jammu District. The study founds the major role of state govt. in providing industrial incentives, implementing policy for the growth and development of J&K SIDCO (State Industrial Development Corporation) is the nodal agency for promotion and development of large-scale industries in the state.

Credit delivery mechanism in apple industry of J&K has the impact on productivity and marketing practices in the form of institutional and non-institutional sources. (Amin, 2017). The results show that complexities in documentation and the accessibility of the institutional credit increase the demand of non – institutional credit. The problems related to production management post-harvest handling, marketing, financing needs to addressed for the economic development of the state.

An analytical study which evaluates and investigates the role of Industrial incentives package in economic development of Himachal Pradesh is carried out by Choudhary (2010). Himachal Pradesh is one of the industrially backward states in India to promote the investment in industrial sector. The special industrial incentives were announced by the state govt. of Himachal Pradesh to develop and strengthen the economic structure of the state (Sharma et al., 2008). The study also examines the infrastructural development, locational factors and role of Industrial promotional agencies in the industrial development of the area under study (Mittal et al., 2004). The study also suggested some measures to improve the industries development of H.P. Ministry of food processing Industry (MOFPI) was set up in July, 1988 to give an impetus for the development of food processing sector in the country. The industry relating to processing and refrigeration of certain agricultural products (milk powder, infant milk food, malted milk food, condensed milk, ghee and other dairy products), poultry and eggs, meat and meat products, fish processing, Fruit and vegetable processing industry, etc. are covered by this ministry. The number of Industries in India relating to food processing sector in the year ending, 2022 are 41,481 (MOFPI, 2023). The employment in Indian registered food processing industries is 20.32 Lakh. In 2021-22, the value of processed food exports is 854.3 crores in India. The value of processed food imports are 2.756 crores in 2021-22. The various stages of processing of food are manufactured processes and other value-added processes. The major challenges of food processing sector are lack of product development and innovation, Inadequate focus on quality and safety standards, Seasonality of operations and low-capacity utilization. The various schemes sponsored by this ministry are PMKSY (Pradhan Mantri Kisan Sampada Yojana), PLISFPI (Production linked incentive Scheme for food processing Industry), PMFME Scheme (Pradhan Mantri formulization of micro food processing enterprises scheme) etc.

Sanson, 2020 in his study tries to understand the process of industrial financing and identify the associated problems and challenges in the study area. The study also examines the contribution of state level financial institutions towards industrial development. The study conducts performance analysis of the selected industrial units funded by SFC's. The study used frequencies, means, t-test, ANOVA, correlation, factor analysis, SEM etc. to analyse the data. By applying ANOVA test, the hypothesis is proved that the state level financial institutions contribute positively towards development in the Jammu Division. Also, by ANOVA test it is proved that the performance of the select industries varies significantly on the basis of industrial size. The study also suggests policy interventions for integrated industrial development in Jammu Division.

Saini, 2021 in the study finds out the status of food Processing industry and its contribution towards overall economic development of India, also do a comparative trade analysis of the food industry in India and other top food processing countries i.e., China, Canada, Germany, UK. The research also analyses the role of various Government schemes in boosting the exports of food Processing Industry. The study used rank analysis, KMO and Bartlett's test, factor analysis, trend analysis of exports of major APEDA listed commodities based on Quantity and revenue etc. to analyse the data. By Regression analysis, the study finds out that there is a significant impact of FPI factors on the Indian Economy indicators. The study's significance outcome was the rank wise identification by various challenges and constraints faced by exporters.

Research Methodology

The convenience sampling technique has been applied to draw the sample of respondents. The details of Food Processing Unit holders' districts wise which are beneficiaries of state Government schemes and subsidies and sample drawn are shown in the table below:

Table No.1: Table showing District wise number of Food Processing Units and Sample Selected

Name of the District	Total Food Processing Units	Units Selected
Jammu	257	120
Samba	53	30
Kathua	22	10
Udhampur	74	22
Reasi	10	6
Ramban	26	13
Doda	20	3
Ponch	10	3
Rajouri	28	8
Kishtwar	10	0
Total	510	215

Source: DIC, 2023; Directorate of Industries and commerce, 2023

Out of 510 Food Processing Unit holders from different districts of Jammu Division, 215(42%) Food Processing Unit holders from different districts were selected for sample.

The questionnaire which is used to collect the data from the respondent is also shown in the Annexure part of the research paper.

The 31 statements regarding the impact of subsidies and incentives on the development of FPIs in Jammu based on 5-point Likert-scale are included in the questionnaire where point 5 stands for strongly agree, 4 means agree, 3 means neither agree not disagree, 2 means disagree and 1 means strongly disagree with the statements. For analyzing the data and for the testing of hypothesis, Exploratory Factor Analysis Technique was used and reliability analysis, Cronbach's Alpha, Principal Component Method were also used to measure reliability and validity (Source). To test validity, we conducted a simple factor analysis using the Principal Component Method on measures of Government Schemes and subsidies performance, PMFME and marketing support, Role of different subsidies and incentives, Economic growth, Overall experience, Revenue to the Government, Industrial Development, Role of Government, Other factors in order to test validity. To find out the impact of factors of subsidies and incentives on Food Processing Industry in Jammu division, we apply Two- way ANOVA test.

Discussions and Analysis:

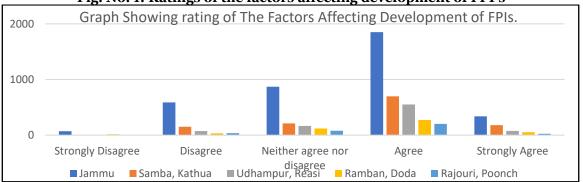
The Ratings of different factors showing impact of Incentives and subsidies on FPI's in Jammu division (district wise) are shown in table no.2:

Table No.2: Analysis of Statements on Subsidies and Incentives in Jammu Division (District wise)

S.No.	District	Ratings of	Ratings of the factors affecting development of FPI's					
		Strongly Disagree	Disagree	Neither agree or nor disagree	Agree	Strongly agree		
1.	Jammu	72	588	870	1851	339		
2.	Samba, Kathua	-	152	211	698	179		
3.	Udhampur, Reasi	-	73	167	552	76		
4.	Ramban, Doda	16	34	119	273	54		
5.	Rajouri, Poonch	-	35	79	203	24		

Source: Primary Data

Fig. No. 1: Ratings of the factors affecting development of FPI's



In Table 1, the rating given to the Jammu District is higher as compared to the other districts as the respondents from Jammu Districts are 120 in number and the statements are 31 in number. The graph above also shows the response 4 point i.e., agree response is highest in all most all the statements in Jammu district followed by Samba, Kathua districts.

Factors Influencing Food Processing Sector in Jammu Division: Reliability Analysis

The study thoroughly addressed both validity and reliability. The degree to which measurements are error-free and produce consistent study results is referred to as reliability. Correlation is a measure of a variable's reliability; a high correlation indicates consistency in the results, which makes them reliable. According to Burns and Bush (1995) and Neuman (1994), validity is the degree to which the conceptual and operational definitions accurately reflect the underlying notion that is to be measured. The most widely used reliability metric, "Cronbach's Alpha is used to assess internal consistency reliability" (Field, 2006). The present study consists of 9 variables with 31 items. Cronbach Alpha (α) was used to check the reliability of these variables. Most researches consider a measure with Cronbach's Alpha equal to or greater than 0.7 as reliable (Sanson, 2020).

In this study, the main focus is to find out the factors which are responsible for the role of incentives in growth and development of Food Processing Industry in Jammu Division. The reliability analysis showed that the Cronbach's Alpha was (0.877) for 31 items. In this study, the reliability analysis result showed more than 0.60 in most of the factors under study.

Therefore, there is internal consistency of the scales. Hence, the instrument used in the study has high reliability value.

Table No. 3: Reliability analysis of measurement scales

Table 10. 3. Renability analysis of measurement scares						
Constructs	Cronbach's alpha	Number of items				
Government Schemes and Subsidies	.870	6				
Performance						
PMFME and Marketing Support	.800	5				
Role of different subsidies/ incentives	.750	4				
Economic Growth	.772	4				
Overall Experience	.701	3				
Revenue to the Government	.807	2				
Industrial Development	.694	2				
Role of Government	.611	2				
Other Factors	.512	3				
Cronbach's Alpha	Cronbach's Alpha based on	No. of items				
_	standarized items					
.877	.878	31				

Source: Primary Data

Validity

The path coefficients or factor loadings, from latent constructs to the relevant indicators for each construct were examined in order to assess the validity of the constructs (Saini, 2021; Sanson, 2020). Validity is evaluated by evaluating the significance of each indicator's predicted pattern coefficient on its proposed underlying concept factor. We used the Principal Component Method to do the basic factor analysis on measures of Government Schemes and subsidies performance, PMFME and marketing support, Role of different subsidies and incentives, Economic growth, Overall experience, Revenue to the Government, Industrial Development, Role of Government, Other factors in order to test validity.

The data reduction method known as factor analysis is used to pin point a smaller number of factors that underlie a large number of observable variables. Factors are composed of variables with a high correlation among them and that are mainly unrelated to other subsets of variables. Items with factor loading less than 0.5 and eigen values less than 1 from the exploratory factor analysis were ignored for the main analysis (Douglas et al., 2003). The reason is that an eien value less than one implies that the scores on component would have negative reliability. The components that have eigen value more than one help us to achieve our objective. It means that it has no value, the original variable was better than the new variable. The exploratory factor analysis has been applied on the statements related to role of incentives in growth and development of food processing industry in Jammu Division which converged into nine factors with 69.413 of variance explained, with KMO value of .771 and Bartlett's test of sphericity value of 3255.861. The nine factors of role of incentives in growth and development of food processing industry in Jammu Division are Government Schemes/subsidies performance (F_1), PMFME and Marketing Support (F_2), Role of different subsidies/ incentives (F_3), Economic Growth (F_4), overall experience (F_5), Revenue to the Government (F_6), Industrial development (F_7), Role of Government (F_8), other factors (F_9).

Government Schemes/Subsidies Performance (F1)

The first factor having mean value 2.887 with Eigen value 7.406 comprises of six items viz; "main reason for establishing unit", "full support by different schemes", "schemes help in marketing", "Develop Caliber of Business", "Full support from Government", "Help from subsidies of Government". The item "Full support by different schemes" (.863) has the highest factor loading, while the term "Main reason for establishing unit" (.647) having the lowest factor loading and hence it stands least associated with this factor.

PMFME and Marketing Support (F2)

The second factor having mean value of 3.5693 with Eigen value 2.923 comprises of 5 items viz, "PMFME Benefit", "Marketing help under ODOP", "Promotional activities", "Help for women Entrepreneur", "Employment Generation". The item "Employment Generation" (.830) has the highest factor loading whereas the item "Marketing help under ODOP" (.522) having the lowest factor loading and therefore it stands least associated with this factor.

Role of different Subsidies Incentives (F3)

The third factor having mean value of 3.612 with Eigen value (2.184) comprises of 4 items viz. "Quality certificate procurement", "100% subsidy on stamp duty", "Marketing Support Incentive", "GST linked Incentive". The item "100% subsidy on stamp duty" (.768) has the highest factor loading and the item "GST linked incentive" (.585) having the lowest factor loading and therefore it stands least associated with this factor.

Economic Growth (F4)

The fourth factor having mean value 3.998 with Eigen value 2.144 comprises of 4 items viz., "Increases Foreign Trade", "Attract FDI", "Establish more domestic enterprises", "Boost Economic Growth". The item "Increases foreign trade" (.829) has the highest factor loading and the item "Establish more domestic enterprises" (.552) having the lowest factor loading and therefore it stands least associated with this factor.

Overall Experience (F₅)

The fifth factor having mean value of 3.587 with Eigen value 1.875 comprises of three items viz, "Effective Single Window Clearance", "Enterprenuership Skill Development Subsidy", "Helpful to youngsters". The item "Effective Single Window system" (.798) has the highest factor loading and the item "Helpful to youngsters" (.527) having the lowest factor loading and therefore it stands least associated with this factor.

Revenue to the Government (F6)

The Sixth factor having mean value of 3.916 with Eigen value 1.434 comprises of two items viz, "Huge revenue to the government", "Increase GDP". The Item "Huge revenue to Government" (.845) has the highest factor loading and the item "Increases GDP" (.813) having lowest factor loading and therefore it stands least associated with this factor.

Industrial Development (F7)

The Seventh factor having mean value of 4.298 with Eigen value 1.291 comprises of two items viz; "More unit Establishment", "Encourages Industrial Development". The item "More unit Establishment" (.852) has the highest factor loading and the item "Encourages Industrial Development" (.805) having the lowest factor loading and therefore it stands least associated with this factor.

Role of Government (F8)

The Eighth factor having mean value of 2.958 with Eigen value of 1.253 comprises of two items viz; "Little time takes by Government", "Incentive's availability without obstacles". The item "Little time takes by Government" (.826) has the highest factor loading and the item "Incentive's availability without obstacles" (.694) having the lowest factor loading and therefore it stands least associated with his factor.

Other Factors (F9)

The Ninth factor having mean value of 2.812 with Eigen value 1.029 Comprises of three items viz, "No relevance of Incentives in Jammu", "Establishment under ODOP", "Marketing help under ODOP". The item 'Marketing help under ODOP' (.620) has the highest factor loading and the item "Establishment under ODOP" (.570) having the lowest factor loading and therefore it stands least associated with this factor.

Table No. 4: KMO and Bartlett's Test of Sphericity

Tuble 1101 41 14/10 and But trett 5 Test of Sphericity					
Kaiser – Meyer – Olkin measure of Sampling Adequacy		.771			
	Approx. Chi Square	3255.861			
Bartlett's Test of Sphericity	Df	465			
	Sig.	.000			

The instrument's face and content validity underwent the appropriate testing Kaiser – Meyer – Olkin (KMO) is a sample adequacy metric used to determine whether the value distribution is suitable for factor analysis. Factor analysis is sustainable when value fall between 0.50 and 1.0 (Malhotra, 2006). Table no. 4 displays the Kaiser – Meyer – Olkin values for the variables mentioned above. It indicates the high degree of construct validity. The high KMO value (.771) in the table above, which is more than 0.6, indicates that the data sample was enough for factor analysis. Furthermore, sufficient non-zero correlations between the selected variables were found (P< 0.01), resulting in a high Chi-square 3255.861 with 465 degree of freedom at significant level of 0.000, demonstrating that the population correlation matrix is not an identity matrix.

Table No. 5: Total Variance Explained

= 0.00 = 0 TO 0 TO 0 TO 0					
	Rotation Sum of Squared Loadings				
Factors	Total	Percentage of variance	Quantitive Percentage		
Government subsidies schemes performance	4.027	12.991	12.991		
PMFME and Marketing Support	3.254	10.465	23.487		
Role of different subsidies/Incentives	2.507	8.086	31.572		
Economic growth	2.357	7.604	39.176		
Overall Experience	2.143	6.913	46.089		
Revenue to the Government	2.028	6.541	52.630		
Industrial development	2.020	6.515	59.145		
Role of Government	1.741	5.617	64.762		
Other Factors	1.442	4.651	69.413		

Source: Primary Data

Table above displays the total variance explained at nine stages for factors of the role of incentives in growth and development in Food Processing Industry in Jammu Division. Nine factors were extracted because their eigen values are greater than 1. When nine factors were extracted, then 69.413 percent of variance would be explained.

Table No. 6: Rotation/Factor Matrix.

Items	1	2	3	4	5	6	7	8	9
Main Reason for Establishing Unit	.647								
Help From Subsidies of Government	.816								
Full support by different Schemes	.863								
Schemes help in Marketing	.672								
Develop Caliber of business	.669								
Full Support from Government	.687								
PMFME Benefit		.689							
Marketing help under ODOP		.522							
Promotional activities		.610							
Help for Women Entrepreneur		.774							
Employment Generation		.830							
Quality Certificate Procurement			.690						
100% Subsidy on Stamp Duty			.768						
Marketing Support Incentives			·735						
GST Linked Incentives			.585						
Increase Foreign Trade				.829					
Attract FDI				.824					
Establish more domestic Enterprises				.552					
Boost Economic growth				.555					
Effective Single Window Clearance system					.798				
Entrepreneurship skill development subsidy					.766				
Helpful to Youngsters					.527				
Huge revenue to the Government						.845			
Increase GDP						.813			
More Unit Establishment							.852		
Encourages Industrial Development							.805		
Little Time Taken by Government								.826	
Incentives availability without obstacles								.694	
No revenue of Incentives in Jammu									.578
Establishment under ODOP									.570
Marketing help under ODOP									.620

Source: Primary Data

Scree Plot

Fig. No. 2: Showing Scree Plot of Factors

No. of ComponentsThe scree plot above shows decreasing trend for a while and after 20 components there is stability achieved in the form of linear trend.

Table No. 7: Grouping of Factor identifying Key Factors.

Table No. 7: Grouping of F				·s.
Factors and Items	Mean	S. D	Factor	Variance
			Loading	
Government Schemes Subsidies Perfo	rmance	1	T	
Main Reason for Establishing unit			.647	
Help from Subsidies of Government			.816	
Full Support by different Schemes			.863	
Schemes help in Marketing	2.887	0.95	.672	12.991
Develop Caliber of Business		5	.669	
Full Support from Government			.687	
PMFME and Marketing Support				
PMFME Benefit			.689	
Marketing Help Under ODOP			.522	
Promotional activities	3.5693	0.83	.610	10.495
Help for Women Entrepreneurship		4	.774	
Employment Generation			.830	
Role of Different Subsidies/Incentives		,	,	•
Quality Certificate Procurement			.690	
100% Subsidy on Stamp duty			.768	
Marketing Support Incentives	3.612	.633	·735	8.086
GST Linked Incentives			.585	
Economic Growth		ı	1 -0 - 0	l
Increases Foriegn Trade			.829	
Attract FOI			.824	
Establish more domestic enterprises	3.998	.652	.552	7.604
Boost Economic Growth		100=	·555	- ' '
Overall Experience		1	.000	I
Effective Single Window			.798	
Clearance System			./ 90	
•	3.587	0.64	-((6.913
Entrepreneurship skill development	0.007	2	.766	0.720
subsidy				
Helpful to youngsters Revenue to the Government			.527	
		1	0	
Huge Revenue to Government	0.016	0.60	.845	
Increase GDP	3.916	0.60	.813	6.541
In deserting Desert on the section	I	4		
Industrial Development		I	0=0	
More Unit Establishment	4.000	5 01	.852	6 01-
Encourage Industrial Development	4.298	.591	.805	6.815
Role Of Government	1	ı		
Little time taken by Government			.826	
Incentives availability without obstacles	2.958		.694	5.617

		0.93 4		
Other Factors				
No relevance of Incentives in Jammu			.578	
Establishment under ODOP	2.812	0.98	.570	4.651
Marketing Help under ODOP		8	.620	

Source: Primary Data

ANOVA 2-way test is applied after formulating hypothesis as shown below in the table No. 8

Null Hypothesis, H₀:- The different factors of incentives and subsidies are not significantly differ in their mean impact on FPI's in Jammu Division.

Alternate Hypothesis H₁:- The different factors of incentives and subsidies differ significantly in their mean impact on FPI's in Jammu Division.

Table No. 8: Data Table

			ubicit	0.0.2		210				
District	Facto	actors					Row Total			
	M ₁	M_2	M_3	M_4	M_5	M_6	M_7	M_8	M ₉	
Jammu	3.39	4.98	5.47	4.17	5.51	4.18	4.38	3.81	3.44	39.33
Samba, Kathua	3.62	3.64	3.72	4.14	3.70	3.99	4.21	3.21	2.97	32.81
Udhampur, Reasi	3.76	4.10	3.58	4.09	3.57	4.00	4.19	3.05	3.29	33.63
Ramban, Doda	3.65	3.96	3.36	3.89	3.81	3.78	4.22	3.03	3.19	32.84
Poonch, Rajouri	3.52	3.95	3.70	3.96	3.67	4.00	4.14	3.09	3.12	33.15
Column Total	17.94	20.6	19.8	20.2	20.2	19.9	21.14	16.19	16.01	172
		3	3	5	6	5				

Source: Primary Data

T= Total of the values= 172

Correction Factor

 $(C_F) = 657.$

Calculate SS between, SS within and SS Total variance and SS residual or error:-

 $SS_{Total} = 15$

 $\begin{array}{ll} SSB_{ct} & = 7.9 \\ SSB_{rt} & = 2.36 \end{array}$

 $SS_{error} = 4.74.$

Table No. 9: ANOVA Table: Two-way

Sources variation	of	Sum of Square(SS)	Degree of Freedom(d.f)	Mean Squares(M.S)	F value	F value critical at 5%
Between Columns		7.9	9-1=8	$\frac{7.9}{8}$ = 0.99	$\mathbf{F1} = \frac{0.99}{0.15} = 7$	F* (8,32) = 2.24
Between Rows		2.36	5-1= 4	$\frac{2.36}{4}$ = 0.59	$F2 = \frac{0.59}{0.15} = 4$	F* (4,32) = 2.67
Residual Error	or	4.74	(9-1) (5-1) 8×4= 34	$\frac{4.74}{32}$ = 0.15		
Total						

Interpretation of result

(a) The calculated value of $F_1 = 7$, this is more than its critical value of 2.24 at $\alpha = 5\%$ at $df_1 = v_1 = 8$ and $df_2 = v_2 = 32$. Hence, we reject the null Hypothesis H_0 and accept H_1 i.e., F^* , **Treatment is significant.**

(b) Since the calculated value of F_2 = 4, this is more than its critical value of 2.668 at

 α = 5%, at df₁= v₁=4 and df₂= v₂ =32. Hence, we reject the null Hypothesis H₀ and accept

H_1 i.e., F^* , Treatment is Significant.

We conclude that the different factors of incentives and subsidies are significantly differ in their mean impact on Food Processing Industries in Jammu Division.

Conclusion

The study shows the most of the respondents from Jammu district are agreed with the most of the statements in the questionnaire based on likert scale. The Fig. 1 Graph also shows the same. The scree plot shows the decreasing trend and at some point after decreasing trend, it becomes linear. The Reliability analysis showed that the Cronbach's alpha (0.877) for 31 items. Thus, there is internal consistency of the scales and the study has a high reliability value. The study confirmed nine factors related to role of incentives in growth and development of Food Processing Industry in Jammu Division. These nine factors are Government Schemes/Subsidies Performance (F_1) , PMFME and Marketing support (F_2) , Role of different subsidies/Incentives (F_3) , Economic growth (F_4) , Overall experience (F_5) , Revenue to the Government (F_6) , Industrial development (F_7) , Role of Government (F_8) and Other factor (F_9) . These factors were extracted because their eigen values are greater than one. Again, mean value of the nine factors ranges between the maximum of (4.298) with S.D of (.591) regarding their role in industrial development to the minimum mean value of (2.812) with S.D of (.988) regarding the other factors like establishment of FPI's under ODOP etc. there by showing the much impact of factors related to role effectiveness of incentives and subsidies available on the development of food processing units in Jammi Division. Again, the results by applying ANOVA (Two-way) test, we found that the different factors of Incentives and subsidies differ significantly in their mean impact of Food Processing in Jammu Division thereby showing the importance of all factors in development of food processing units in Jammu Division.

Bibliography

- 1. Ahmed , I. (2017). Entrepreneurship Development and Challenges faced by Entrepreneurs in MSME sector: A study of J&K. *International Journal of Commerce, Arts and Science, 8*(3), 4-12.
- 2. Amin , U. (2017). *Impact of Institutional and Non Institutional Financial Intermediaries on Production and Marketing of Horticulture Produce in Jammu and Kashmir, A Comparative Study*. PhD Thesis, School of Business Studies, Islamic University of Science and Technology, Department of Management Studies, Pulwama, Awantipora (J&K)-192122(Pincode) pp.1-185.
- 3. Bhatia, A., Mehta, R., Verma, K., & Saigal, K. (2020, June 22). Indian Food Processing Sector: The untapped growth Opportunity. *Retrieved from Invest India(National Investment and Facilitation Agency)*.
- 4. Burns, A. C., & Bush, R. F. (1995). Marketing Research, Upper Saddle River, Prentice Hall, New Jersey.
- 5. Chaudhary, R. (2010). *Role of Special Industrial Incentives package in Economic Development of Himachal Pradesh: A study of Solan District.* PhD thesis submitted to Himachal Pradesh University, Shimla, Department of Commerce and Management Studies. pp.1-217.
- 6. DIC Jammu. (2023). District Industrial Centre, J&K Govt., Jammu.
- 7. Din, A. (2017). *Role of Microfinance of Women Empowerment- A Comparative study of Madhya Pradesh and Jammu & Kashmir*. Thesis submitted to Jiwaji University, Gwalior(M.P), (NAAC Accredited'A' Grade University), Department of PG Stidies and Research in Economics, Govt. S.L.P(P.G) College Gwalior, (M.P), pp-1-213.
- 8. Directorate of Industries and commerce. (2023). J&k Govt., Jammu. Retrieved from http://www.jkindustriescommerce.nic.in
- 9. Douglas, C. M., & George, C. R. (2003). Applied Statistics and Probability for Engineers 3rd Edition. John Wiley & Sons, Inc.
- 10. Field, A. P. (2006). Discovering Statistics Using SPSS for Windows, London, Sage publications.
- 11. Imran, U. (2017). Impact of Institutional and Non-Institutional Financial Intermediatries on Production and Marketing of Horticultural Produce in Jammu and Kashmir- A comparative Study. PhD Thesis, Islamic University of Science and Technology, Avantipora, Pulwama(J&K), Department of Management Studies.
- 12. Malhotra, N. (2006). Marketing research: an applied orientation. Pearson Education Australia. Frenchs Forest.
- 13. Mittal, K., & Batra, G. (2004, September). Factors affecting on growth of entreneurship in small scale industries in Punjab and Haryana. *The Business Review*, 11(1).
- 14. MOFPI. (2022-23). Annual Report of Ministry of Food Processing Industries. Government of India, (1-216).
- 15. Nain, M., Singh, R., Sangeetha, V., Chandel, S., Kumar, P., & Peer, J. (2013). Strategies for entrepreneurship development through fruit production in jammu and Kashmir State. *Agricultural Science Digest-A Research Journal*, 33(3), 165-171.
- 16. Neuman, W. L. (1994). Social Research Methods, 2nd Edition, Boston, Allyn & Bacon.
- 17. Saini , N. (2021). Analysis of the Food Processing Industry and its Role in Indian Economy. Thesis submitted to Birla Institute of Technology for Doctor of Philosophy in Management, Department of Management, Birla Institute of Technology, Mesra, Ranchi, India.
- 18. Sanson, V. (2020). Role of State Level Financial Institutions in Industrial Development of Jammu Division. Thesis submitted for Degree of Doctor of Philosophy in Management Studies., The Business School, University of Jammu (1-185).
- 19. Sharma, R. (2011). *Impact of New Industrial Policy on Industrial Development Corporation (SIDCO) in Jammu District*. PhD Thesis submitted to Department of Economics, University of Jammu, 1-304.
- 20. Sharma , V., Vashist, R., & Sharma, N. (July, 2008). Industrialisation and Development. A macro Economic analysis. *The Indian Journal of Economics*, 41(352).

21. Swetha, T., & Rao, V. (2013). Entrepreneurship in India. *International Journal of Social Science and Interdisciplinary Research*, 2(7), ISSN-22773630.

Annexure:

Questionnaire

Note:- Write 5, 4, 3, 2, 1 or 9 respecting against each of the following statement.

- 5- means Strongly Agree
- 4- means agree
- 3- means neither agree nor disagree
- 2- means disagree
- 1- means strongly disagree
- 9- means not sure

How much you agree on the following statements regarding the impact of subsidies and incentives in Jammu.

Stat	ements on subsidies and Incentives
(1)	It promotes establishment of more units.
(2)	It encourages industrial development
(3)	Much time was not taken in sanctioning the land in industrial estate.
	It increases foreign trade.
	Incentives attract foreign direct Investment.
	It encourages establishment of more domestic enterprises in Jammu.
(7)	It has helped to boost economic growth to double digits.
	Incentives are available from government without any obstacles.
(9)	Adequate number of infrastructural facilities available in industrial estate.
	Incentives and concessions has no relevance to start business in Jammu
	Tax incentives results in huge revenue to the Government.
	Incentives increase Gross Domestic Product.
	Subsidies / Incentives is the main reason for establishing your unit.
	Subsidy on Procurement of Quality Certificate is satisfactory.
	100% subsidy on stamp duty attract the youngsters to set up units.
(16)	Market support Incentives by Govt. of J&K help to choose entrepreneurs as a Career.
(17)	Goods and services tax linked Incentive available to unit holders is excellent.
	Single window Clearance system by Govt. is effective.
	Entrepreneurship skill development fund subsidy is satisfactory.
	Financial Support through subsidies help the youngsters to set up new unit.
	Subsidies from Government helps you to establish the unit.
(22)	You got full support under different schemes by the Government agencies.
(23)	These schemes also helps you in marketing of your products.
	These schemes helped you in developing your Caliber of doing business.
(25)	You have established your unit under ODOP scheme.
(26)	You got full support from Government for setting/ expanding business.
(27)	PMFME scheme is beneficial for FPO's, SHG's and farmers.
(28)	Under ODOP scheme, Government helped you in marketing of your products.
	Promotional activities viz. Trade Fairs, Mega events conducted from Time to time by the Government.
(30)	Establishment of micro-Unit under ODOP scheme help the women entrepreneurs in establishing business.
(31)	ODOP scheme helps in creating employment.
(0-)	