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Assessment Of The Socio-Economic Empowerment Of Local Communities Through Food Processing Industries: A Case Study Of Khurda District, Odisha

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Abstract

This study investigates the socio-economic empowerment of local communities through Food Processing Industries (FPI) in Khurda District, Odisha. Adopting a quantitative research approach, the study aims to assess the impact of FPI on key socio-economic indicators, including employment opportunities, income generation, access to nutritious food, and community cohesion. 400 respondents were selected using stratified sampling techniques, with data collected through structured questionnaires administered between December 15, 2023, and January 10, 2024. Structural Equation Modeling (SEM) was adopted to analyze the relationships between FPI and socio-economic outcomes. The results reveal significant positive associations between FPI and employment opportunities, income generation, access to nutritious food, and community cohesion. These findings underscore the potential of FPI to drive socio-economic development and enhance the well-being of local communities in Khurda District. The practical implications of the study suggest the importance of fostering an enabling environment for FPI growth, including policy support, infrastructure development, and skill enhancement programs. Furthermore, the study identifies avenues for future research, including long-term impact of FPI interventions and comparative analyses across different regions to inform targeted policy interventions for sustainable socio-economic empowerment. Overall, this study contributes to the literature on FPI and community development, offering insights for policymakers, practitioners, and researchers seeking to promote inclusive and sustainable development in Khurda District, Odisha, and beyond.

Keywords; Socio-Economic Empowerment, Local Communities, Food Processing Industries, Khurda District

INTRODUCTION

The vitality of industrial development as the lifeblood of nations stems from its pivotal role in driving economic progress. Industrialization catalyzes large-scale production of manufactured goods, thereby fueling economic growth. As a country ramps up its manufacturing output, leveraging advancements in industries and technologies, it invariably witnesses a surge in key economic indicators. Gross domestic product (GDP) escalates, per capita income rises, and employment opportunities expand.

Moreover, the phenomenon of rapid industrialization propels nations towards heightened economic prosperity. This growth trajectory is characterized by an expansion in exports, bolstering foreign income through the substantial realization of manufactured goods exports. Sharma (2014) underscores the transformative impact of industrialization on economies, highlighting its pivotal role in driving economic advancement and fostering sustainable development. Industrialization, therefore, stands as a cornerstone of national progress, serving as a potent engine for economic transformation and prosperity. Its profound influence extends beyond domestic borders, positioning

countries on the global stage as drivers of innovation, productivity, and economic resilience.

The food processing industry plays a vital role in the socio-economic development of regions by creating employment opportunities, enhancing income generation, improving access to nutritious food, and fostering community cohesion. In the context of Khurda District, Odisha, where agriculture is a predominant economic activity, the establishment and growth of food processing industries hold significant promise for bolstering local economies and improving the well-being of communities.

Khurda District, located in the eastern part of Odisha, is renowned for its agricultural abundance, with a diverse range of crops cultivated in its fertile lands. Despite the agricultural richness, the district faces challenges related to income disparity, limited employment opportunities, and inadequate access to nutritious food, particularly in rural areas. Recognizing the potential of food processing industries to address these challenges, there is a growing interest in understanding their impact on key socio-economic indicators in the region.

In light of the above, the purpose of this research is to examine how the food processing industries in Khurda District, Odisha, affect a range of socioeconomic variables. Here are some specific goals that the research aims to accomplish:

- ***To assess the impact of the availability of Food Processing Industries on Employment Opportunities and Income Generation in Khurda District, Odisha.***
- ***To investigate the impact of Food Processing Industries on Access to Nutritious Food and Community Cohesiveness in Khurda District, Odisha.***

By examining these objectives, the study endeavors to provide valuable insights into the role of food processing industries in driving socio-economic development, enhancing food security, and fostering community well-being in Khurda District, Odisha. Through empirical analysis and rigorous methodology, the study aims to contribute to the existing body of knowledge on the subject and inform evidence-based policy interventions aimed at promoting inclusive and sustainable development in the region.

REVIEW OF LITERATURE

Numerous scholarly inquiries have delved into the multifaceted dimensions of India's industrialization. Neves

(2022) observed shifts in the local economic landscape following the establishment of Açu (PIC), noting both positive changes and a heightened reliance on external economic factors, potentially sidelining the local population. Ahmed et al. (2022) highlighted environmental degradation as a prominent concern amid industrialization due to its contribution to climate change impacts. LI Yong (2022) investigated the asymmetric effects of the COVID-19 pandemic on manufacturing enterprises, revealing varied socio-economic impacts across regions and nations, particularly affecting small and medium-sized businesses.

Elfaki et al. (2021) explored the long-term effects of financial development and industrialization, revealing favorable impacts on economic growth, contrasting with the detrimental effects of monetary supply and trade openness. Kapparashetty (2020) discussed the significant repercussions of lockdown measures on the industrial sector, reflecting in subdued growth projections and unprecedented levels of unemployment.

Trabulsi (2019) proposed industry development as a solution to economic and social challenges in Arab nations, while Panda (2018) emphasized the crucial role of Micro, Small, and Medium Enterprises (MSMEs) in fostering self-employment opportunities and contributing to industrial activities. Nahata & Hashim (2017) stressed the importance of sustained Ease of Doing Business (EoDB) efforts by governments to realize the objectives of "Make in India."

Gade, Surendra (2018), study delved into the significant contributions of the Micro, Small, and Medium Enterprises (MSME) sector to India's economic development. It meticulously examined areas requiring reinforcement to foster the sector's growth, crucial for sustaining the nation's economic progress. The research underscored the pivotal role of MSMEs in propelling India towards heightened economic growth, offering equitable opportunities and leveraging the country's natural resources effectively.

Sutikno (2017) noted the localized benefits of industrialization in Gresik but underscored its limited impact on the broader community. Singh and Bhagat (2015) highlighted the intertwined effects of globalization, state-level variables, and macroeconomic factors on unemployment and poverty levels. Chaudhuri (2015) emphasized the need for demand-pull strategies alongside policy interventions to stimulate industrial growth.

Audi and Mohammed (2014) attributed Nigeria's regressive industrialization to inadequate policies, funding,

and infrastructure. Similarly, Chaudhuri (2013) advocated for governmental support to promote domestic IT businesses, while Kusena (2012) and Vasudeva (2011) underscored the socio-cultural and strategic aspects of industrial strategies in various regions.

Vanipriya R., and Venkatramaraju D. (2011), underscored the socioeconomic significance of small-scale industries in fostering balanced development. They highlighted the sector's role in generating employment opportunities at a minimal cost, promoting entrepreneurship, and skill development. Their research advocated for the prioritization of modern small-scale industries, emphasizing their potential to drive holistic development across rural and urban landscapes.

Kansal, R. (2009), analysis focused on the impact of globalization on the development of small-scale industries in India. Through a comparative analysis, he illustrated the adverse effects of globalization and liberalization on the sector's growth trajectory. Kansal concluded that these economic shifts failed to positively influence the small-scale industry sector's growth, signaling the need for policy interventions to bolster its development.

Premakumara (2008), stressed the pivotal role of infrastructural development in economic progress, particularly emphasizing the electricity industry's expansion in Karnataka. Kamalakannan (2006) emphasized rural industrialization's significance in fostering agriculture, urban industries, and low-cost job opportunities. Finally, Singh (2006) supported the idea that institutional market mechanisms are necessary for sustaining micro and tiny businesses. Bheemappa (2002) investigated technology adoption in rural industrialization, advocating for tailored approaches based on local contexts and skill sets.

Murugassian (1997), study lauded the performance of small-scale industrial units in India, despite facing various challenges. He emphasized their critical role in providing significant and gainful employment opportunities, underscoring their importance in the national economy. Mukherjee et al. (1999) examined the growth trajectory of small-scale industries in West Bengal, highlighting their substantial contributions to industrial output and exports. The research underscored the sector's remarkable expansion over the years, underscoring its pivotal role in employment generation and economic development.

Chandra Pujari, M. (1996), highlighted the historical emphasis on industrial development in India post-

independence, particularly in the context of large-scale industries. However, he underscored the significance of small-scale industries in mitigating regional disparities and fostering equitable growth. His research emphasized the positive impact of small-scale industries on employment generation and economic development, particularly evident in regions like Karnataka's Dakshina Kannada district.

Nanjundan (1994), analysis centered on the impact of globalization on small-scale industries in India. He outlined the regulatory and non-reservation challenges confronting these industries post-globalization. Despite their potential for employment generation and poverty alleviation, Nanjundan highlighted the lack of supportive policy measures hindering the sector's viability and growth.

Desai (1983), underscored the vital role of small-scale industries in driving rapid industrialization in India. He highlighted the multitude of challenges faced by these industries, ranging from raw material shortages to infrastructural deficiencies. Desai emphasized the need for comprehensive measures to enhance the efficiency of small-scale industries, positioning them as crucial contributors to the national income and pivotal sectors of the economy.

Sen (1957), introduced the surplus maximization criterion, which advocated for capital-intensive techniques in industrial processes. He argued that the choice of technology hinges on the economic context, distinguishing between developed and developing economies. Sen contended that higher wage rates necessitate capital-intensive technologies, while lower wage rates can sustain less developed countries with relatively labor-intensive techniques. His analysis, particularly relevant to India's small-scale sector, highlighted the strategic importance of technology selection in maximizing surpluses for further investment.

Keynes (1936), in his seminal work, focused on the intricate relationship between employment policy and industrialization within the economy. His theory proposed that entrepreneurs, driven by the motive to maximize output and profit, determine the level of employment. Central to his argument was the notion that the productivity of labor plays a pivotal role in shaping employment levels. He emphasized a positive correlation between labor productivity, production, and employment. Keynes's insights shed light on the dynamics of employment generation in the context of industrial development. Based upon above literature researcher proposed following hypotheses regarding the relationships between different constructs within the model:

- **Hypothesis (H1):** There is significant impact of availability of Food Processing Industries on Employment Opportunities & on Income Generation.
- **Hypothesis (H3):** There is significant impact of availability of Food Processing Industries on Community Cohesiveness and access to Nutritious Food.

These hypotheses suggest that the presence and development of food processing industries may have significant implications for employment opportunities, income generation, community cohesiveness, and access to nutritious food within a given community or region. The alternative hypotheses (H1 & H2) propose associations between Food Processing Industries and each of these constructs.

RESEARCH METHODOLOGY

This study adopts a quantitative research approach to measure the impact of Food Processing Industries (FPI) on various socio-economic factors in Khurda District, Odisha. Structural Equation Modeling (SEM) is employed as the primary analytical technique to assess the relationships between FPI and key socio-economic indicators. The study utilizes a sample size of 400 respondents from Khurda District, Odisha, chosen through a stratified random sampling technique.

The data collection period for this study spans from December 15, 2023, to January 10, 2024. Data is gathered through structured questionnaires administered to respondents residing in Khurda District, Odisha. The questionnaire includes items designed to assess the impact of Food Processing Industries on key socio-economic factors, including employment opportunities, income generation, access to nutritious food, and community cohesiveness. Data collection is carried out through face-to-face interviews conducted by trained enumerators. Respondents are selected randomly within each stratum to ensure the representativeness of the sample. The questionnaire is designed to capture both quantitative and qualitative information, allowing for a comprehensive analysis of the research objectives.

Table: 1 Results

Table 1 - Structural Equation Models	
Estimation Method	ML
Optimization Method	NLMINB

Number of observations	400
Model	Food Processing Industries= \sim EOFPI1+EOFPI2+EOFPI3+EOFPI4+EOFPI5
	Employment opportunities = \sim EO1+EO2+EO3+EO4
	income Generation = \sim IG1+IG2+IG3+IG4
	Community Cohesiveness = \sim CC1+CC2+CC3+CC4
	Access to nutritious food = \sim HAN1+HAN2+HAN3+HAN4
	Employment opportunities ~Food Processing Industries
	income Generation ~Food Processing Industries
	Community Cohesiveness ~Food Processing Industries
	Access to nutritious food ~Food Processing Industries

In this study, we delve into a model in table 1 designed to elucidate the intricate interplay within food processing industries and their broader socio-economic impact. The model employs Structural Equation Modeling (SEM), a robust framework for investigating latent constructs and their indicators. The dataset utilized in this analysis comprises 400 observations, providing a robust foundation for exploring the complexities of the socio-economic landscape. By leveraging a sizable dataset, the model aims to capture a comprehensive understanding of the phenomena under investigation, ensuring the reliability and validity of the findings.

The core of the model consists of latent variables representing key aspects of the socio-economic ecosystem. These latent variables include Food Processing Industries, Employment Opportunities, Income Generation, Community Cohesiveness, and Access to Nutritious Food. Each latent variable is characterized by a set of indicators, representing observable variables that serve as proxies for the underlying constructs.

The relationships between latent variables and their respective indicators are delineated using a structural framework. Through the use of arrows denoted by " \sim ", the model illustrates how latent variables influence the observed indicators. For instance, the latent variable Food Processing Industries is posited to have a significant impact on Employment Opportunities, Income Generation, Community Cohesiveness, and Access to Nutritious Food, reflecting the multifaceted nature of its influence on the socio-economic fabric.

Table : 2

Label	X ²	df	p
User Model	2682	179	< .001
Baseline Model	6096	210	< .001

The User Model in table 2 under scrutiny represents a tailored statistical model, likely crafted to elucidate specific relationships or predict outcomes within a given context. Its chi-square statistic, a measure of the discrepancy between observed and expected data, is calculated to be 2682, with 179 degrees of freedom. Remarkably, the associated p-value is less than 0.001, indicating a highly significant fit to the data. This suggests that the user model provides a meaningful representation of the underlying phenomena, effectively explaining variations observed in the dataset. Conversely, the Baseline Model serves as a reference point for comparison, often representing a simplistic or default

model devoid of specific hypothesized relationships. Despite its simplicity, the baseline model exhibits a considerable chi-square statistic of 6096, with 210 degrees of freedom. Notably, like the user model, its associated p-value is less than 0.001, signaling a significant fit to the data. While less specified than the user model, the baseline model still captures important aspects of the observed phenomena, albeit in a more generalized manner.

The comparative analysis between the user and baseline models reveals intriguing insights into their respective performances. Both models demonstrate statistically significant fits to the data, indicating their ability to capture the underlying relationships within the dataset. However, the user model, with its tailored specifications, outperforms the baseline model, showcasing a more nuanced understanding of the observed phenomena. This underscores the importance of crafting models that reflect the intricacies of the data, rather than relying solely on simplistic or default representations.

Table : 3

				95% Confidence Intervals				
Dep	Pred	Estimate	SE	Lower	Upper	β	z	p
Employment opportunities	Food Processing Industries	0.21	0.0529	0.1063	0.314	0.27	3.97	< .001
income Generation	Food Processing Industries	0.221	0.0552	0.1128	0.329	0.232	4	< .001
Community Cohesiveness	Food Processing Industries	0.221	0.0551	0.1134	0.329	0.233	4.02	< .001
Access to nutritious food	Food Processing Industries	0.128	0.0427	0.044	0.212	0.2	2.99	0.003

In statistical modeling, parameter estimates provide valuable insights into the strength and direction of relationships between variables. In this analysis, we focus on parameter estimates pertaining to the influence of Food Processing Industries on various socio-economic factors, along with their associated confidence intervals and statistical significance in table 3.

Employment Opportunities: The estimated parameter between Food Processing Industries and Employment Opportunities is 0.210, with a standard error (SE) of 0.0529. The 95% confidence interval for this estimate ranges from 0.1063 to 0.314. This positive estimate suggests that an increase in Food Processing Industries is associated with a

corresponding increase in Employment Opportunities. The statistical significance of this relationship is confirmed by the z-test ($z = 3.97, p < .001$).

Income Generation: Similarly, the estimated parameter linking Food Processing Industries to Income Generation is 0.221, with a standard error of 0.0552. The 95% confidence interval spans from 0.1128 to 0.329. This positive estimate indicates that as Food Processing Industries grow, there is a corresponding increase in Income Generation. The z-test yields a statistically significant result ($z = 4.00, p < .001$), reinforcing the robustness of this relationship.

Community Cohesiveness: The parameter estimate between Food Processing Industries and Community

Cohesiveness is also 0.221, with a standard error of 0.0551. The 95% confidence interval ranges from 0.1134 to 0.329. This positive estimate suggests that the presence of Food Processing Industries positively influences Community Cohesiveness. The z-test confirms the statistical significance of this relationship ($z = 4.02, p < .001$).

Access to Nutritious Food: Finally, the estimated parameter between Food Processing Industries and Access to Nutritious Food is 0.128, with a standard error of 0.0427. The 95% confidence interval extends from 0.0440 to 0.212. This positive estimate implies that an increase in Food Processing Industries is associated with improved access to

nutritious food. The statistical significance of this relationship is supported by the z-test ($z = 2.99, p = 0.003$).

In summary, the parameter estimates reveal significant positive relationships between Food Processing Industries and various socio-economic factors, including Employment Opportunities, Income Generation, Community Cohesiveness, and Access to Nutritious Food. These findings underscore the multifaceted impact of Food Processing Industries on local economies and communities, highlighting their potential role in promoting socio-economic development and improving access to essential resources and same has depicted in the framework given below.

Figure 1- Estimated Framework

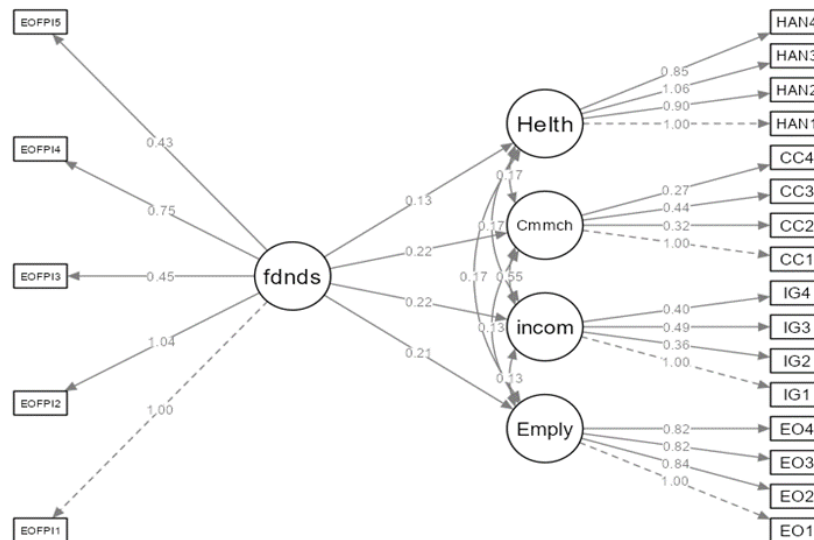


Table: 4

Table 4- Measurement model								
				95% Confidence Intervals				
Latent	Observed	Estimate	SE	Lower	Upper	β	z	p
Food Processing Industries	EOFPI1	1	0	1	1	0.723		
	EOFPI2	1.037	0.0973	0.846	1.228	0.793	10.66	<.001
	EOFPI3	0.454	0.0988	0.261	0.648	0.264	4.6	<.001
	EOFPI4	0.755	0.0817	0.595	0.915	0.555	9.24	<.001
	EOFPI5	0.428	0.074	0.283	0.573	0.334	5.78	<.001
Employment opportunities	EO1	1	0	1	1	0.695		
	EO2	0.843	0.0852	0.676	1.01	0.627	9.89	<.001
	EO3	0.821	0.0806	0.663	0.979	0.655	10.19	<.001
	EO4	0.816	0.0851	0.649	0.983	0.602	9.59	<.001
income Generation	IG1	1	0	1	1	0.989		
	IG2	0.36	0.0483	0.265	0.455	0.345	7.46	<.001
	IG3	0.493	0.0462	0.402	0.584	0.467	10.67	<.001
	IG4	0.4	0.0513	0.299	0.5	0.359	7.79	<.001
Community Cohesiveness	CC1	1	0	1	1	0.989		

	CC2	0.317	0.0511	0.216	0.417	0.293	6.2	<.001
	CC3	0.44	0.0488	0.344	0.536	0.408	9.01	<.001
	CC4	0.275	0.0534	0.17	0.38	0.246	5.14	<.001
Access to nutritious food	HAN1	1	0	1	1	0.693		
	HAN2	0.9	0.0873	0.729	1.071	0.642	10.31	<.001
	HAN3	1.064	0.1008	0.867	1.262	0.664	10.55	<.001
	HAN4	0.854	0.0869	0.683	1.024	0.603	9.82	<.001

In the realm of statistical modeling, understanding the relationship between latent constructs and their observable indicators is paramount for gaining insights into complex socio-economic phenomena. In this study, we embark on a comprehensive exploration of the measurement model, dissecting the associations between latent constructs such as Food Processing Industries, Employment Opportunities, Income Generation, Community Cohesiveness, Access to Nutritious Food, and their corresponding observed indicators.

The Food Processing Industries construct, a cornerstone of economic development, is meticulously assessed through five observed indicators (EOFPI1 to EOFPI5). Each indicator provides a unique perspective on the presence and impact of food processing industries within a community. The parameter estimates reveal statistically significant associations ($p < .001$) between all indicators and the latent construct, with EOFPI2, EOFPI4, and EOFPI5 displaying particularly strong relationships.

Similarly, the Employment Opportunities construct is scrutinized through four observed indicators (EO1 to EO4). These indicators serve as proxies for the availability and accessibility of employment within a given area. Notably, all indicators exhibit statistically significant associations ($p < .001$) with Employment Opportunities, with EO2, EO3, and EO4 demonstrating notable influence.

Income Generation, a vital aspect of socio-economic well-being, is evaluated through four observed indicators (IG1 to IG4). These indicators capture the capacity of individuals and communities to generate income through various means. The parameter estimates underscore the significance of all indicators ($p < .001$), with IG3 and IG4 showing particularly strong associations with Income Generation.

Community Cohesiveness, essential for fostering social capital and resilience, is assessed through four observed indicators (CC1 to CC4). These indicators reflect the bonds and interactions within a community. Statistical analysis reveals significant associations ($p < .001$) between all indicators and Community Cohesiveness, with CC2 and CC3 demonstrating noteworthy influence.

Access to Nutritious Food, a critical determinant of public health and well-being, is gauged through four observed indicators (HAN1 to HAN4). These indicators shed light on the availability and affordability of nutritious food options. Parameter estimates indicate statistically significant associations ($p < .001$) between all indicators and Access to Nutritious Food, with HAN2 and HAN3 exerting substantial influence.

Table 5

Variable 1	Variable 2	Estimate	SE	95% Confidence Intervals		β	z	p
				Lower	Upper			
EOFPI1	EOFPI1	0.5792	0.06537	0.45108	0.7073	0.4771	8.86	<.001
EOFPI2	EOFPI2	0.404	0.06083	0.2848	0.5232	0.3717	6.64	<.001
EOFPI3	EOFPI3	1.7511	0.12653	1.50311	1.9991	0.9304	13.84	<.001
EOFPI4	EOFPI4	0.8114	0.06627	0.6815	0.9413	0.6917	12.24	<.001
EOFPI5	EOFPI5	0.9248	0.06786	0.79182	1.0578	0.8882	13.63	<.001
EO1	EO1	0.4122	0.04103	0.33179	0.4926	0.5175	10.05	<.001
EO2	EO2	0.4207	0.03722	0.34779	0.4937	0.6065	11.31	<.001
EO3	EO3	0.3448	0.03178	0.28248	0.4071	0.5712	10.85	<.001
EO4	EO4	0.4514	0.03868	0.37562	0.5272	0.6381	11.67	<.001
IG1	IG1	0.013	0.00368	0.00577	0.0202	0.022	3.53	<.001
IG2	IG2	0.5513	0.03885	0.47512	0.6274	0.8807	14.19	<.001

IG3	IG3	0.5009	0.03526	0.43176	0.57	0.7814	14.21	<.001
IG4	IG4	0.6223	0.04384	0.53639	0.7083	0.8711	14.19	<.001
CC1	CC1	0.0126	0.00458	0.00364	0.0216	0.0215	2.75	0.006
CC2	CC2	0.6148	0.04338	0.52977	0.6998	0.9143	14.17	<.001
CC3	CC3	0.5575	0.03932	0.4804	0.6345	0.8336	14.18	<.001
CC4	CC4	0.6753	0.04767	0.58188	0.7688	0.9395	14.17	<.001
HAN1	HAN1	0.2817	0.02708	0.2286	0.3347	0.5199	10.4	<.001
HAN2	HAN2	0.3001	0.02654	0.24812	0.3521	0.5875	11.31	<.001
HAN3	HAN3	0.3734	0.03409	0.30657	0.4402	0.559	10.95	<.001
HAN4	HAN4	0.331	0.02795	0.27623	0.3858	0.6359	11.84	<.001
Food Processing Industries	Food Processing Industries	0.6349	0.09104	0.45646	0.8133	1	6.97	<.001
Employment opportunities	Employment opportunities	0.3562	0.05299	0.25239	0.4601	0.9271	6.72	<.001
income Generation	income Generation	0.5454	0.04027	0.46647	0.6243	0.9463	13.54	<.001
Community Cohesiveness	Community Cohesiveness	0.5439	0.04024	0.46501	0.6227	0.9459	13.52	<.001
Access to nutritious food	Access to nutritious food	0.2497	0.03635	0.17849	0.321	0.9601	6.87	<.001
Employment opportunities	income Generation	0.1314	0.02837	0.07584	0.187	0.2982	4.63	<.001
Employment opportunities	Community Cohesiveness	0.1276	0.02823	0.0723	0.183	0.29	4.52	<.001
Employment opportunities	Access to nutritious food	0.1698	0.02581	0.11926	0.2204	0.5694	6.58	<.001
income Generation	Community Cohesiveness	0.5548	0.03997	0.47647	0.6331	1.0187	13.88	<.001
income Generation	Access to nutritious food	0.1695	0.02531	0.11986	0.2191	0.4592	6.7	<.001
Community Cohesiveness	Access to nutritious food	0.1658	0.02515	0.11651	0.2151	0.4499	6.59	<.001

The variances in table 5 within each latent construct provide crucial insights into the extent of variability captured by the observed indicators. Across constructs such as Food Processing Industries, Employment Opportunities, Income Generation, Community Cohesiveness, and Access to Nutritious Food, statistically significant variances ($p < .001$) underscore the diverse range of factors influencing these domains. These findings highlight the richness and complexity of the socio-economic landscape under study.

The covariances between observational indicators shed light on the extent of association between pairs of variables, revealing their interrelationships within each latent construct. Significant covariances observed between indicators within constructs affirm the coherence and consistency of the measurement model. For instance, covariances within the Food Processing Industries construct between indicators like EOFPI1, EOFPI2, EOFPI3, EOFPI4, and EOFPI5 highlight their shared variance and mutual influence, reflecting the multifaceted nature of this domain.

Exploring covariances between latent constructs unveils the interconnectedness between different aspects of the socio-economic landscape. Significant covariances between constructs such as Employment Opportunities and Income Generation, Employment Opportunities and Community Cohesiveness, and others, suggest complex relationships and potential pathways of influence. These findings underscore the holistic nature of socio-economic dynamics, where changes in one domain can have ripple effects across multiple facets of community life.

In summary, the analysis of variances and covariances within the SEM framework provides valuable insights into the interrelationships between variables and the coherence of the measurement model. By unraveling the complex patterns of association, researchers can gain a deeper understanding of socio-economic dynamics, enabling them to formulate targeted interventions and policy recommendations aimed at fostering sustainable development and well-being within communities.

Table : 6

Table 6 - Intercepts						
Variable	Intercept	SE	95% Confidence Intervals		z	p
			Lower	Upper		
EOFPI1	1.97	0.055	1.862	2.078	35.758	<.001
EOFPI2	2.292	0.052	2.19	2.395	43.978	<.001
EOFPI3	3.143	0.069	3.008	3.277	45.811	<.001
EOFPI4	2.205	0.054	2.099	2.311	40.719	<.001
EOFPI5	2.248	0.051	2.148	2.347	44.051	<.001
EO1	1.968	0.045	1.88	2.055	44.093	<.001
EO2	1.883	0.042	1.801	1.964	45.204	<.001
EO3	1.938	0.039	1.861	2.014	49.877	<.001
EO4	2.123	0.042	2.04	2.205	50.468	<.001
IG1	1.675	0.038	1.6	1.75	43.637	<.001
IG2	1.732	0.04	1.655	1.81	43.796	<.001
IG3	1.732	0.04	1.654	1.811	43.281	<.001
IG4	1.975	0.042	1.892	2.058	46.734	<.001
CC1	1.68	0.038	1.605	1.755	43.833	<.001
CC2	1.76	0.041	1.68	1.84	42.927	<.001
CC3	1.748	0.041	1.667	1.828	42.738	<.001
CC4	1.965	0.042	1.882	2.048	46.355	<.001
HAN1	1.865	0.037	1.793	1.937	50.676	<.001
HAN2	1.79	0.036	1.72	1.86	50.086	<.001
HAN3	1.89	0.041	1.81	1.97	46.253	<.001
HAN4	1.597	0.036	1.527	1.668	44.286	<.001
Food Processing Industries	0	0	0	0		
Employment opportunities	0	0	0	0		
income Generation	0	0	0	0		
Community Cohesiveness	0	0	0	0		
Access to nutritious food	0	0	0	0		

In table 6 Intercepts, denoted for observed indicators within latent constructs such as Food Processing Industries (EOFPI1-EOFPI5), Employment Opportunities (EO1-EO4), Income Generation (IG1-IG4), Community Cohesiveness (CC1-CC4), and Access to Nutritious Food (HAN1-HAN4), provide essential information about the expected values of these indicators when all predictor variables are set to zero. The statistical significance of these intercepts ($p < .001$) implies the existence of a baseline level of influence or presence associated with each construct, even in the absence of other factors. Furthermore, the 95% confidence intervals offer insights into the range within which the true population parameter is likely to fall.

Interestingly, intercepts for predictor variables—Food Processing Industries, Employment Opportunities, Income Generation, Community Cohesiveness, and Access to Nutritious Food—are uniformly set to zero with zero standard errors. This signifies that these variables do not directly manifest as observed indicators but rather serve as predictors influencing other constructs within the model. While the standard errors being zero imply a lack of

uncertainty, the confidence intervals are not applicable in this context.

DISCUSSION AND CONCLUSION

The primary objective of this study was to examine the influence of Food Processing Industries on several socio-economic factors. Through statistical modeling and analysis of parameter estimates, the study aimed to shed light on the strength and direction of relationships between these industries and key socio-economic indicators.

The findings of the analysis revealed noteworthy insights into the impact of Food Processing Industries on various facets of socio-economic development. Firstly, regarding Employment Opportunities, the study identified a positive association between the presence of Food Processing Industries and increased employment opportunities. This aligns with previous research by Keynes (1936), who emphasized the role of industries in providing employment and driving economic growth. Similarly, the analysis unveiled a positive correlation between Food Processing Industries and Income Generation. This echoes the

sentiments of Desai (1983), who highlighted the pivotal role of industrialization, including food processing, in contributing to income generation and economic prosperity.

Moreover, the study found a positive relationship between Food Processing Industries and Community Cohesiveness. This finding resonates with the observations of Chandra Pujari (1996), who emphasized the potential of industries, including small-scale enterprises, in fostering community development and reducing regional disparities. Lastly, the analysis indicated a positive impact of Food Processing Industries on Access to Nutritious Food. This corroborates with the insights from previous studies such as Gade, Surendra (2018), which emphasized the role of food processing in enhancing access to essential resources and promoting socio-economic well-being.

The underscore the significant and multifaceted influence of Food Processing Industries on various socio-economic factors. These findings highlight the potential of these industries in driving local economic growth, fostering community development, and enhancing access to essential resources, thereby contributing to overall socio-economic development. However, further research and policy interventions may be necessary to maximize the positive impacts of Food Processing Industries and address any potential challenges or disparities that may arise.

STUDY IMPLICATION

The study's practical implications span various sectors and stakeholders, each poised to benefit from insights garnered regarding Food Processing Industries' socio-economic impact. At the forefront are policymakers, empowered with data-driven evidence to formulate nuanced policies tailored to bolstering the growth trajectory of this sector. By leveraging findings indicating a positive correlation between Food Processing Industries and critical socio-economic metrics such as employment opportunities and income generation, policymakers can craft targeted incentives and support mechanisms aimed at catalyzing investment and fostering industry expansion. Moreover, these insights have far-reaching implications for local and regional development strategies. Armed with a deeper understanding of the sector's potential to drive economic diversification and stimulate growth, development agencies can integrate these findings into their strategic frameworks. By prioritizing initiatives that encourage the establishment and growth of Food Processing Industries, these agencies can cultivate an environment conducive to investment, innovation, and sustainable development.

In essence, the practical implications of the study underscore the transformative potential of Food Processing Industries as a catalyst for socio-economic progress, community well-being, and sustainable development. By capitalizing on these insights, stakeholders can collectively chart a course towards a more prosperous, inclusive, and resilient future.

STUDY LIMITATION

In examining the influence of food processing industries on socio-economic factors in Khurda District, Odisha, the sample size and representativeness of the data pose constraints on the generalizability of findings. Additionally, the availability and quality of data concerning food processing industries, employment, income, and community dynamics may impact the accuracy and reliability of the study's conclusions.

REFERENCES

- [1] Ahmed, F., Kousar, S., & Ahmed, S. (2022). The Environmental Impact of Industrialization and Foreign Direct Investment: Empirical Evidence from the Asia-Pacific Region. *Journal of Environmental Science and Pollution Research*, 7, 778–792.
- [2] Audi, S. M., & Mohammed, A. (2014). Industrialization and Sustainable Development in Nigeria, 1, 142-154.
- [3] Bheemappa, A. (2002). Technology and Rural Industrialization. *Yojana*, 46, 43-46.
- [4] Chandra, Pujari M. (1996). "Small-Scale Sector: Myth and Reality." *Economic and Political Weekly*, M11-M14.
- [5] Chaudhuri, S. (2015). Import Liberalization and Premature Deindustrialization in India. *Economic and Political Weekly*, L(43), 60-68.
- [6] Desai, Vasant. (1983). *Problems and Prospects of Small Scale Industry India*. Bombay: Himalaya Publishing House.
- [7] Elfaki, E. K., Handoyo, D. R., & Ibrahim, H. K. (2021). The Impact of Industrialization, Trade Openness, Financial Development, and Energy Consumption on Economic Growth in Indonesia. *MDPI Journal of Economics*, 9, 174.
- [8] Kamalakannan, K. (2006). *Rural Industrialization and Poverty Alleviation*. Kurukshetra, 54(7).
- [9] Kansal, R. (2009). "Globalization and its impact on small scale industries India." *PCMA Journal of Business*, 1(2), 135-146.

- [10] Kapparashetty, V. B. (2020). Impact of Covid-19 on the Industrial Sector: A Study. *International Journal of Research and Analytical Reviews*, 7(1), 422-429.
- [11] Keynes, J.M. (1936). *The General Theory of Employment, Interest and Money*. New York: Harcourt Brace and Company.
- [12] Kusena, W., Shoko, N., & Marambanyika, T. (2012). Socio-Economic Impact of Cement Production at Sino-Zimbabwe on the Hosier Community, Gweru, Zimbabwe. *Journal of Sustainable Development in Africa*, 14(8), 94-103.
- [13] Mukherjee, S. (2018). "Challenges of Indian Micro, Small and Medium Scale Enterprise in the era of globalization." *Journal of Global Entrepreneurship Research*, 8(1), 1-19.
- [14] Murugasen, P. (1997). "A Study of SSI in Madurai District." Ph.D Thesis, Madurai Kamaraji University, 216.
- [15] Nahata, A., & Hashim, A. D. (2017). *Ease of Doing Business: Challenges & Way Forward*. *Yojana*, 61, 58-64.
- [16] Nanjundan, S. (1994). "The Changing Role of Small Scale Industry, International Implications for India, country's Experiences and Lessons." *Economic and Political Weekly*, 46-63.
- [17] Neves, R. A. F. (2022). The Socio-Economic Impacts of the Maritime Industrial Development Area (MIDA) Model in Latin America: The Case of the Acu Port-Industrial Complex. *Journal of Maritime Affairs*, 25, 351-368.
- [18] Nivila, M. (2007). "Industrial Development and Economic Development: Implications for poverty reduction and income inequality." *Industrial Development: Sustainable Development Perspectives*, 1(3), 295-333.
- [19] Panda, K. A. (2018). MSMEs: New Engines of Growth & Employment. *Yojana*, 58-61.
- [20] Premakumara, G. S. (2008). Impact of Power Industry on Economic Development: A Mathematical Analysis. *Kurukshetra*, 56(4), 24-26.
- [21] Roderick, D. (2007). "Industrial Development: Some Stylistic Facts and Ethics Instructions." In *Industrial Development for the 21st Century: Perspectives on Sustainable Development* (pp. 7-28).
- [22] Sen, A.K. (1957). *Choice of Technique*. Blackwell.
- [23] Sharma, R.K. (2014). "Industrial Development of India in the Pre and Post-Reform Period." *IOSR Journal of Humanities and Social Sciences (IOSR-JHSS)*, 19(10).
- [24] Sharma, R.K. (2014). "Industrial Development of India in the Pre and Post-Reform Period." *IOSR Journal of Humanities and Social Sciences (IOSR-JHSS)*, 19(10).
- [25] Singh, S. P. (2006). Promoting Group Entrepreneurship for Rural Industrialization. *Kurukshetra*, 54(5).
- [26] Sutikno, S. M. (2017). The Impact of Industrialization on Regional Economic Development and Community Welfare. *International Scientific Research Journal*, 1, 142-154.
- [27] Trabulsi, H. (2019). Industrial Development and Combating Unemployment in Arab Countries. *International Business Research*, 12(9).
- [28] Vasudeva, S. P. (2011). Bamboo in the Socio-Economic Development of Himachal Pradesh. *Kurukshetra*, 59(4), 34-40.
- [29] Yong, L. (2022). *The Future of Industrialization in a Post-Pandemic World*. Industrial Development, United Nations Development Organization 2022.