

The marketing framework for organic cultivation with the particular scheme of marketplace association: A statistical analysis

Dr.Gurvishal Sinha Sharda university

Abstract

This paper assesses the accurate representation of natural vegetable cultivators(organic farming) in rural areas. The point of emotionally supportive networks is measurably broken down to affirm the numerical gravity of closeness of these systems. These assistances diagram the natural market(mandi) with tremendous help in developing, providing, and commercializing the product for end consumers. The monetary attainability with cultivating assets assembled and collaboration, closeness, and coordination get dissected. Therefore, an accurate study operates at multidimensional scaling for accomplishing the ideal proximity with the features influencing the market.

Keywords:- monetary, markets, organic farming, support system & variables.

INTRODUCTION

The civilization on this planet is about a million years ago, as estimated at around fifty million years ago. The species, whether they are animal or human beings, survival always depends on food or anything. The agriculture and the techniques are ancient old. Therefore, human civilization is bound to adopt novel techniques. On the flip side, the population on this planet is rapidly growing. A sound approach for managing food and its related essentials as the priority of human existence came in at the onset. Agricultural land and its production capability stand as the first parameter to address. The countries like Spain stands with thirty-nine percent of productivity, United States of America stands with thirty-two percent. India is also rising in the agricultural productivity sector at a faster rate. The national organic produce program in India, Madhya Pradesh, reflects the highest organic area (379997). The conversion was also documented highest by Madhya Pradesh(294055). According to statista.com, the production volume of vegetables in India in 2020, with potatoes the highest in all the categories. Onions secure second place for the year 2020. According to ourworldindata.org, the vegetable contribution for every individual gram in India is 218.82. As suggested by Statista.com, India stands second in producing fresh vegetables in 2019 with one hundred thirty-two million metric tonnes.

Literature review

According to(Harris et al.,2020), It is noteworthy that the farming and their practitioners acknowledge that the coronavirus pandemic's distress impacted farmers and purchasers for the rations. The harvest of vegetable growers specifically is probably going to see an upset in their agricultural practices. As suggested (Rai et al.,2019) additionally, the study identified fresh grain cultivating, and its relationship to cultivators occupation stays restricted. As concluded by (Schreinemachers et al.,2016), The reception of assortments by cultivators is in this way the aftereffect of a collective exertion between worldwide farming exploration, public farming frameworks, and grain corporations. As suggested by(Nuthalapati et al.,2020) Likewise, offering general store assortment focuses is related to lesser exchange overheads for agricultural growers. Our homestead study information cannot dissect overheads and exchange outlay supplementary next in-store and customary inventory chains. As concluded by (Deka et al.,2020) Unquestionably requires looking into a portion of the pivotal parts of the planter grower associations, including the advancement of trading connection via scheduling plans like agreement cultivating. As suggested by (Nedumaran et al., 2020), The mentioned advancements ought to get coordinated towards expanding the agricultural grower's offer within

the shopper rupee in the cost for FFV, lessening the span of the inventory network by outpacing the mediators, expanding per capita accessibility of products of the soil, decreasing PHL, as well as expanding utilization by diminishing the value instability of the yield. Concluded by (Srinivasa Rao et al.,2016), the creation of rice on the east side of the country get anticipated to be generally affected via the expanded hotness of climate and diminished rays. They were bringing about moderately a smaller amount of grains and more limited grain filling spans. Paradoxically, potential decreases in yields due to expanded heat in northern India anticipated being counterbalanced by more significant emissions, diminishing the effects of environmental transformations. As suggested by (Singh et al.,2018), advancement towards non-used agricultural products could diminish serious culturing rehearses and limit the requirement for compound manures and pesticides. As suggested by (Hsiao et al., 2018), therefore, essential within the direction of deciding an ideal putting away condition surroundings for every class of foodstuff items in the means of transportation, something which has seldom tended to in the past investigations in regards to frosty storages. As concluded by (Feuerbacher et al.,2020), Country occupations are reliant upon harvest agribusiness. Steers farming, which rules domesticated animals agribusiness, is land broad; however, work concentrated, reflecting low efficiency. As suggested by (Wang et al., 2020) Subsequently, it is critical to consider how the metropolitan & regional lodging differences add to the extending metropolitan countryside prosperity in china. As concluded by (Aninowski et al., 2020), there is presently a finished absence of data concerning the biodynamic composite substance and possible

sensitivity of strawberries in writing. As concluded by (Nandi et al.,2016) Consequently, from a single viewpoint, this analysis strengthens and help policymakers and creators of administrative arrangements worried about the advancement of natural rations souk &, secondly, business organizations looking in the direction of more readily arrangements with the natural items as well as adjust & impart the required procedures in favor of the aimed souk. As suggested by (Flores et al.,2019), This preceding representation to be deemed a bunch of cultivators that are required to organize their agricultural produce to fulfill huge clients and sidestep mediators, which the creators anticipate to that not adjoin charges, and at times increment costs and taking care expenditure. As suggested by (Meena et al., 2019), there is a critical need for an essential survey, which aids in re-planning the Indian Agri-food supply chain. The literature review guides an assortment of practices on farming and flexibility needed in horticultural produces. Furthermore, the review centers around the business cycle with strategies. Then again, many studies need to go forth with the selling issues on the rural agricultural produce, with their related operational compass of agricultural practices and merchandising.

STATISTICAL TABLES AND ANALYSIS

The multidimensional scaling method is a statistical tool to accumulate for the statistical tables and their related inferencing. Additionally, statistical introspection statistically suggests the variables' connotations in this study by analyzing the variables in the below-mentioned tables. We can locate the dimensionality of the rural agricultural practices:-

S & F Values Table 1			
	Dimensions		
	one	two	three
Normalized Raw Stress	.02089	.00045	.00023
Stress value-I	.14453 ^c	.02121 ^c	.01502 ^a
Stress-II	.25090 ^c	.04765 ^c	.03765 ^a
S-Stress	.06219 ^f	.00144 ^d	.00099 ^b

Dispersion Accounted For (D.A.F.)	.97911	.99955	.99977
Tucker's Coefficient of Congruence	.98950	.99978	.99989

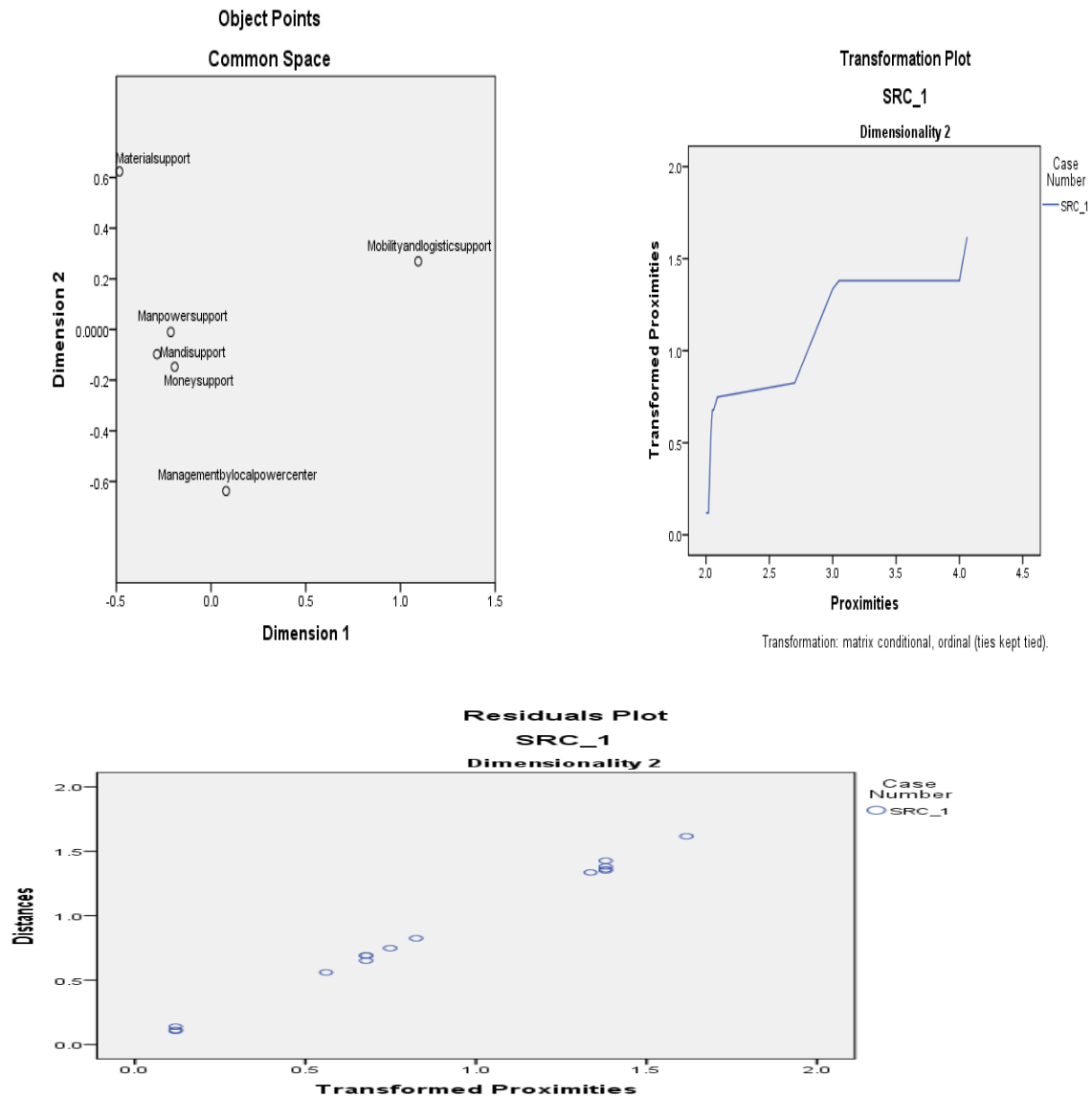
The breaking numbers into parts for Normalized Raw Stress

Table two

		Dimensionality	
		2	
		origin	mean
		SRC1	
Variable	Mandisupport	.0006	.0006
	Manpowersupport	.0001	.0001
	Moneysupport	.0003	.0003
	Materialsupport	.0000	.0000
	Mobilityandlogisticsupport	.0007	.0007
	Managementbylocalpowercenter	.0003	.0003
Mean		.0003	.0003

Final Coordinates Table 3

	Dimensionality	
	2	
	Dimension	
	1	2
Mandisupport	-.285	-.098
Manpowersupport	-.212	-.010
Moneysupport	-.192	-.147
Materialsupport	-.484	.624
Mobilityandlogisticsupport	1.094	.269
Managementbylocalpowercenter	.079	-.638



1. Table1 signifies a remarkable transformation that transpires from dimensionality 1 to dimensionality 2. On the same side, if we look at the scree plot, it also specifies that a two-dimensional solution is optimal.

2. Table2 signifies a Mean score value with an overall mean that stands with (.0003). Therefore, for the model, all the variables propose significance.

3. Table3 indicates the final coordinates for dimensionality two parameters.

4. Object point graph represents that all the variables are on dimensionality 2 area, except one logistic support. We can easily calculate approximately that 3 M'S (Manpower, Money

support & Mandi support) are in close radius with each other. The three M asserts an understanding that every single one within three functions together.

5. At the present, if we focus our schedule on the transformational plot graph, we find out the zig-zag line trend; this again denotes that the nonmetric model is significant.

6. The Graph for the residual plot shows that all variables are moving linearly in one direction; this represents that model is accurately fit.

If we articulate all variables statistically, we find a model that three M's (Money, Market place & Manpower support), financial, structural & workforce requirements, closely knitted with each

other to function as one variable. The name (*agro-commercial system*) suits these interlinked variables. On the other hand, the second aspect is about (management by local power centers & material support) shown their distance from the newly coined word agro commercial factors. Therefore, understood that market place for sellers is self-sufficient for all activities. The role of power centers and suppliers for any activity is secondary in demand, or we can express it as an alternate channel of support. The name (*auxiliary-approach system*) comprises village money lenders, village heads, & agricultural support markets.

CONCLUSION

At all levels, the market system demonstrates the traits of self-sustainability and sufficiency. Furthermore, the additional layer of external environment factors protects their commercial activities—selling. The key to generating and supporting the business is socializing and methodical money management inside the market. As a result, we can confidently assert that the dimension two areas protect two market structures. The first is self-contained, and the second is arrangement-friendly.

References:-

- 1 Major Vegetable Producing Countries in the World From Ministry of Agriculture & Farmers Welfare. Source: FAO Website-February 2014 and for India: Horticulture Division, Deptt. of Agri & Coopn(at the beginning of 12th Plan, i.e., during the year 2012-13); In response to the unstarred question: AU2600; NA: <https://data.gov.in/resources/major-vegetable-producing-countries-world-ministry-agriculture-farmers-welfare>.
2. State/UT-wise Area Covered under Organic Farming (in reply to Unstarred Question on 18 July 2019) (From Ministry of Agriculture and Farmers Welfare. Data value are Area in Ha; NA: Not Available; Total area under Organic Farming-2770019.791 (or 27.70 lakhs) Published on Data Portal:22/09/2020.
3. <https://www.statista.com/statistics/621312/vegetable-production-by-type-in-india/>.
4. [https://ourworldindata.org/grapher/average-per-capita-vegetable-intake-vs-minimum-](https://ourworldindata.org/grapher/average-per-capita-vegetable-intake-vs-minimum-recommended-guidelines?tab=table&country=~IND)

recommended-

<https://www.statista.com/statistics/264662/top-producers-of-fresh-vegetables-worldwide/>

5. <https://www.statista.com/statistics/264662/top-producers-of-fresh-vegetables-worldwide/>
6. Harris, Jody; Depenbusch, Lutz; Pal, Arshad Ahmad; Nair, Ramakrishnan Madhavan; Ramasamy, Srinivasan (2020). *Food system disruption: initial livelihood and dietary effects of COVID-19 on vegetable producers in India. Food Security*, (), -. doi:10.1007/s12571-020-01064-5 .
7. Rai, M., Paudel, B., Zhang, Y., Khanal, N., Nepal, P., & Koirala, H. (2019). Vegetable Farming and Farmers' Livelihood: Insights from Kathmandu Valley, Nepal. *Sustainability*, 11(3), 889. doi:10.3390/su11030889.
8. Schreinemachers, P., Rao, K. P. C., Easdown, W., Hanson, P., & Kumar, S. (2016). The contribution of international vegetable breeding to private seed companies in India. *Genetic Resources and Crop Evolution*, 64(5), 1037–1049. doi:10.1007/s10722-016-0423-y.
9. Nuthalapati, Chandra S.R.; Sutradhar, Rajib; Reardon, Thomas; Qaim, Matin (2020). *Supermarket procurement and farmgate prices in India. World Development*, 134(), 105034-. doi:10.1016/j.worlddev.2020.105034.
10. Deka, N., Goswami, K., Thakur, A. S., & Bhadoria, P. B. S. (2020). Are farmer producer companies ready to behave as business entities? Insights from the vegetable-based farmer companies in West Bengal, India. *International Journal of Agricultural Sustainability*, 18(6), 521–536. doi:10.1080/14735903.2020.1794213.
11. Nedumaran, S., Selvaraj, A., Nandi, R., Suchiradipta, B., Jyosthnaa, P., & Bose, D. (2020). Digital integration to enhance market efficiency and inclusion of smallholder farmers: a proposed model for fresh fruit and vegetable supply chain. *International Food and Agribusiness Management Review*, 23(3), 319–337. doi:10.22434/ifamr2019.0165.
12. Srinivasa Rao, C., Gopinath, K. A., Prasad, J. V. N. S., Prasannakumar, & Singh, A. K. (2016). Climate Resilient Villages for Sustainable Food Security in Tropical India: Concept, Process, Technologies, Institutions, and Impacts. *Advances in Agronomy*, 101–214. doi:10.1016/bs.agron.2016.06.003.
13. Singh, Shrawan; Singh, L. B.; Singh, D. R.; Chand, Subhash; Zamir Ahmed, S. K.; Singh, V. N.; Dam Roy, S. (2018). *Indigenous underutilized*

- vegetables for food and nutritional security in an island ecosystem. *Food Security*, (), –. doi:10.1007/s12571-018-0840-1
14. Hsiao, Y.-H., Chen, M.-C., Lu, K.-Y., & Chin, C.-L. (2018). *Last-mile distribution planning for fruit-and-vegetable cold chains*. *The International Journal of Logistics Management*, 29(3), 862–886. doi:10.1108/ijlm-01-2017-0002
15. Feuerbacher, Arndt; McDonald, Scott; Dukpa, Chenchu; Grethe, Harald (2020). *Seasonal rural labor markets and their relevance to policy analyses in developing countries*. *Food Policy*, (), 101875–. doi:10.1016/j.foodpol.2020.101875.
16. Wang, Yourong; Li, Yuyao; Huang, Youqin; Yi, Chengdong; Ren, Jianyu (2020). *Housing wealth inequality in China: An urban-rural comparison*. *Cities*, 96(), 102428–. doi:10.1016/j.cities.2019.102428.
17. Aninowski, Mateusz; Kazimierczak, Renata; Hallmann, Ewelina; Rachtan-Janicka, Joanna; FijoÅ, -Adach, ElÅ¼bieta; Feledyn-Szewczyk, Beata; Majak, Iwona; LeszczyÅ„ska, Joanna (2020). *Evaluation of the Potential Allergenicity of Strawberries in Response to Different Farming Practices*. *Metabolites*, 10(3), 102–. doi:10.3390/metabo10030102
18. Nandi, Ravi; Bokelmann, Wolfgang; Gowdru, Nithya Vishwanath; Dias, Gustavo (2016). *Factors Influencing Consumers' Willingness to Pay for Organic Fruits and Vegetables: Empirical Evidence from a Consumer Survey in India*. *Journal of Food Products Marketing*, (), 1–22. doi:10.1080/10454446.2015.1048018
19. Flores, Hector; Villalobos, J. Rene; Ahumada, Omar; Uchanski, Mark; Meneses, Cesar; Sanchez, Octavio (2019). *Use of supply chain planning tools for efficiently placing small farmers into high-value vegetable markets*. *Computers and Electronics in Agriculture*, 157(), 205–217. doi:10.1016/j.compag.2018.12.050.
20. Meena, Siya Ram; Meena, Shambhu D.; Pratap, Saurabh; Patidar, Rakesh; Daultani, Yash (2019). *Strategic analysis of the Indian agri-food supply chain*. *OPSEARCH*, (), –. doi:10.1007/s12597-019-00380-5