

IMPACT OF ADOPTION AND INNOVATION BEHAVIOUR OF VEGETABLE CULTIVATION BY TRIBAL FARMERS OF KEONJHAR DISTRICT OF ODISHA

BIBHU SANTOSH BEHERA, NARAYANA NAYAK, BABITA PANDA

Abstract: The present study entitled “Impact of Adoption Behaviour of Vegetable Cultivation by Tribal Farmers of Keonjhar District of Odisha” was under-taken with a view to find out the socio-economic profile of tribal vegetable farmers; to find out the relationship between the socio-economic characteristics of the respondents with the vegetable adoption and rejection. Accordingly Suggestions were collected from field level & formulation of suitable strategies for comprehensive study in near future. The data collected through a pre-tested structured interview schedule with employment of appropriate statistical measures for analysis and interpretation of the data. The major findings of the study from the socio-economic profile were majority of the tribal farmers belonged to young age category(44.82 percent).Most of the respondents were illiterate(51.72 percent),having big & joint family(57.24 percent and 60 percent respectively),and less social participation(74.48 percent).Being traditionals, Most of the respondents were localite in nature(56.55 percent). Out of the sample only 18.62 percent farmers had vegetable trading as second livelihood option.

Keywords: Adoption, Constraints Correlation, Discontinuance, Rejection, Strategy, Socio-Economic status.

Introduction: Vegetable cultivation is a part of Horticultural science. In scientific word it is termed as “Olericulture”.In global context “India” placed 2nd position after china in vegetable cultivation.(Both in area and production).But we are proud to know that our country placed 1st position in cauliflower,2nd in onion ,3rd in cabbage and 4th in potato respectively in the world. As per the recommendation made by Indian Council for Medical Research (ICMR), the use of vegetables per day is 280 gm. But now days we avail less than equal to 100 gm due to poor production and adoption pattern of vegetable production in India. After getting conscious on the vegetable demand now farming people giving more emphasis on vegetable crops in order to meet the need of consumers ,”Odisha “placed a respectable position in vegetable cultivation .But due to some irreparable conditions like (lack of input supply in proper time ,lack of idea on package of practices, lack of marketing and processing industry facilities and lack of financing lack of storage facility)Farming people have low adoption pattern for vegetable cultivation. In Odisha out of 30 districts Keonjhar is one of the progressing tribal districts to conquer over the rank in vegetable cultivation due to cool temperate condition and vegetable forcing areas in the bank of the Baitarani River. Apart from these “Kudumi” tribes (Mahanta families) have a greater effort on vegetable cultivation actively.InKeonjhar district Swampatana, Saharpada, Anandapur, Ghatagaon, Hatadihi; Telkoi blocks have remarkable vegetable production due to “Gola” and “Chasa “families. In this district mainly cabbage, cauliflower, pumpkin, cucumber, pointed gourd, bitter gourd, parwal, onion and potato are cultivated. Here the researcher wants to study the details of adoption pattern of vegetable growers and compare them for

further study and improvement with justified suggestions for their livelihood prosperity.

Objectives of study:

- To study the socio- economic characters of tribal vegetable farmers.
- To identify the vegetable innovations adopted by the tribal vegetable farmers during last ten years and reasons for adoption and diffusion.
- To identify the vegetable innovations rejected /discontinued by the tribal vegetable famers during last ten years and the reasons for rejection or discontinuance.
- To list out the opinion of tribal vegetable farmers on social, economic, and management constraints and their suggestions .
- To suggest suitable strategies for the effective adoption of vegetable technology by the tribal vegetable farmers of Keonjhar district of Odisha.

Expected Out Comes:

- Vegetable Cultivation by tribal’s in terms of negative behavior: Discontinuance; Rejection; Disagreement; Conflict; Dissonance; Confusion and reason for reinvention can be explained under the process of Technology Socialization.
- The status of predictors of tribal vegetable farming can be rationalized and can be attuned to expedite the Process of technology socialization.
- Some models of tribal vegetable farming will be evolved, which will be helpful for policy maker to standardize the process of Technology Socialization in the realm of rural development.

Limitation of the study:

- The entire investigation is based on individual’s perception and expressed opinion of the respondent under study.
- Though utmost efforts were made to make best

use of standardized tools and techniques of data collection, yet accuracy may not be guaranteed.

Research Methodology: The Study was conducted by Young Scientist, Bibhu, a bonafide Researcher of Extension Education in Keonjhar District Purposively in the year 2012-13 with the help of Host Institution, OUAT, Bhubaneswar by Collaboration with Various line Dept. to frame suitable Agriculture Policy For Tribal Farmers. Here the researcher was using a structured Interview schedule as instrument to collect the primary data by PRA method from farmers and making triangulation by using secondary data from Govt, NSSO, Journals, Books and web sources to draw the conclusion. Here ex-post facto research design was being used with some fundamental statistical measures.

Result and Discussion:

Correlation of socio-economic variable with adoption behavior: Socio-economic variable and adoption behavior of any technology is a function of multiple factors of economic, socio-psychological and communication variables. The variables directly or indirectly influence the individual with regarding to their adoption behavior. Attempt was made in the study to assess the relationships of some selected variables in the knowledge level of the respondents on various on various aspect of vegetable cultivation under study. The responses obtained on these aspects were analyzed by assigning score to individual respondents on each variable following the developed by Trivedy (1973). Zero order co-efficient of correlation analysis was made with the hypothesis.

References:

1. Abdul, R.Q, Ashfaq, H.M and Sultan, A.C (1993): Farmers characteristics affecting adoption of agricultural innovations. *Journal of Rural Development and Administration*. Vol. xxv, (3): 111 - 113.
2. Bishop R and Coughenour C.M (1994) Discontinuance of Farm Innovations. Mimeo Billetin AE 361 Department of Agricultural Economics and Rural Sociology, Ohio State University, Columbus.
3. Chadha, K.L. 2009. Horticulture: The Next in Agriculture Agriculture Year Book 2009. Agriculture Today. pp: 24-29.
4. Das, J. (2002); Keynote address: Socio- Economic perspectives of Detribalisation in North Orissa,

The results of the analysis are presented in the table - 1

The findings present in the table- revealed that education, land holding size, familysize, outwardorientation, HousingPattern, occupation, socialparticipation, ownership right, holding size, savings status and annual income are significantly correlated with adoption behavior at 5 percent level of significance but age, family type, credit status have not significantly correlated with adoption behaviour. For 145 respondents, at (n-2) degree of freedom "t" value is 1.976. From the table we may find that calculated "t" values were higher than 1.976. It proved that a high order co-relation exists & significant values were occurs due to 5 percent level of significance.

Conclusion: The study although concludes that these are good practices of vegetable cultivation in Keonjhar District. They require community organizations, team work, and leader to lead them and enable them to take decision with risk learning capacity. They also required sufficient training and demonstrations to develop their knowledge and skill competency, credit facilities, incentives and minimum support price easy disposal of produce needs due consideration. If all these things are provided to the vegetable growers then there will be definitely increases in area, production and productivity of vegetables in Keonjhar district. The district can contribute significantly for the vegetable requirement of the state as well as increase the economic status of tribal dominated farmers.

- conducted by Department of Tribal Studies, North Orissa University, Baripada.
5. Darr David A and Wen S. Chern (2002) Analysis of Genetically Modified Organism Adoption by Ohio grain Farmers. *Proceedings of the 6th International Conference on Agricultural biotechnology: New Avenues for production, Consumption and Technology Transfer*. Ravello Italy July 11-14 2002.
6. Elenchezhian T and Kombairaju S (2004) marketing efficiency of major vegetable in central vegetable market of Madurai, *Madras Agril Journal* 91(1-3): 27-31.

Acknowledgement: I acknowledged the Direct help from my Parents, Family members, friends. I also grateful to my OUAT University and my Teachers. Laxmi, my fiancée is the inspiration of success. It is

dedicated to the Researchers for their TAR (Technology Advancement Refinement). I bow my head before God for this great success.

Table -1: Correlation of socio-economic variable on adoption behavior.				
Sl. No	Variables	Correlation co-efficient (r)		't' Value@0.05=1.976
1.	Age(X ₁)	0.138	NS	1.67
2.	Education(X ₂)	0.594	**	8.829
3.	Family Type (X ₃)	0.123	NS	1.487
4.	Family size(X ₄)	0.431	**	5.711
5.	Outward Orientation(X ₅)	0.489	**	6.709
6.	Housing Pattern (X ₆)	0.563	**	8.146
7.	Occupation (X ₇)	0.427	**	5.646
8.	Social participation (X ₈)	0.579	**	8.492
9.	Ownership Right (X ₉)	0.549	**	7.854
10.	Holding Size(X ₁₀)	0.519	**	7.260
11.	Average annual income(X ₁₁)	0.421	**	5.550
12.	Credit Status	0.131	NS	1.574
13.	Savings Status	0.493	**	6.776

**=significant at 5 percent level of significance.N.S- Non-significant



Figure-1:- Empirical model for the study of adoption behavior of vegetable farmers

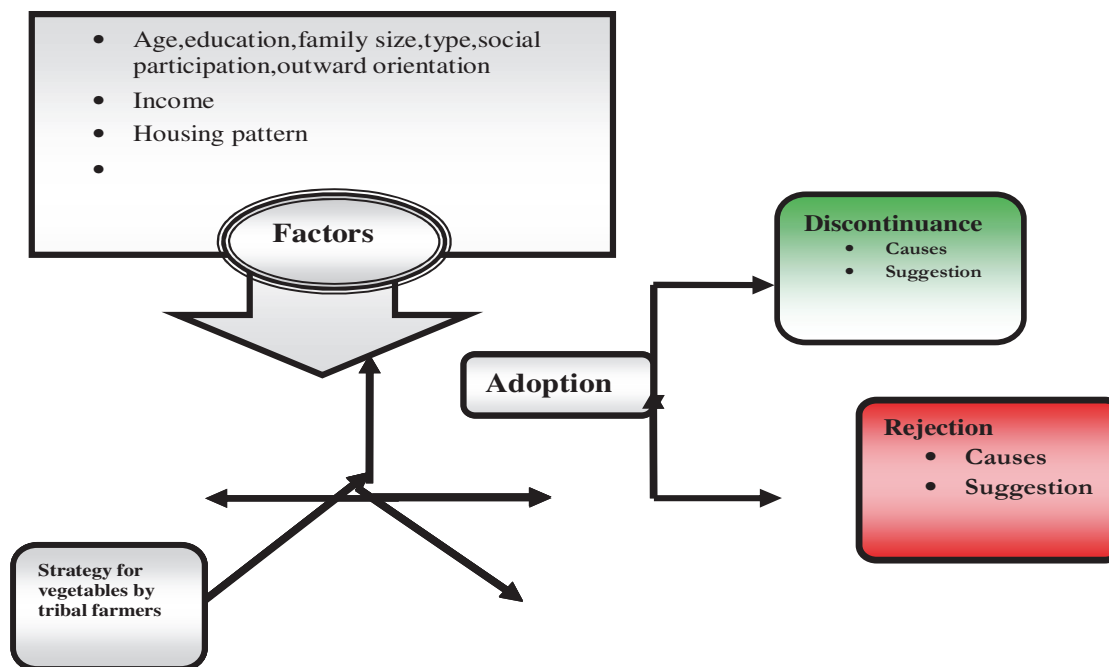


Figure-2 : Conceptual Framework Correlates of Adoption of Vegetables by Tribal Farmers

Bibhu Santosh Behera/Ph.D Research Fellow/
 Dept. of Extension Education/OUAT/Bhubaneswar-751003/
 Odisha/b.behera88@gmail.com

Narayana Nayak /Dept. of EconomicsDhenkanal (Auto) College/Dhenkanal
 Babita Panda3/Dept. of Economics/Utkal University/Bhubaneswar/behera.bibhusantosh38@gmail.com