Market Value Generation Process among Vegetable Growers in Nadia District of West Bengal

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ABSTRACT

*The value addition in any perspective of agriculture emphasizes the role of market led extension in agricultural production economics. In this context, value generation process for producing high value vegetable crops is giving impetus for enterprising agriculture. Market value generation is the most critical sphere of research in any production process because it only makes a farmer encourage to introduce more variety of crops in the field. A study was conducted to assess and analyse the level of market value generation amongst the vegetable growers and to find out the inter and intra level relationship between the market value generation process and the score of some selected agro-economic and socio-personal attributes of vegetable growers. The study was conducted at Haringhata block in Nadia district. Multistage random sampling procedure was followed for selection of village, block, district and respondents. The total number of respondents was eighty (80). The fourteen (14) predictor variables and one (1) predicted variable had been considered for the study. The data were collected with the help of structured interview schedule by personal interview method and processed into the statistical analysis like t-test, coefficient of correlation and path analysis. The study revealed that the predictor variables, cultivable land and per capita income of vegetable growers had recorded significant but negative association with market value generation process. After decomposing predictor and predicted variables, it had been revealed that the antecedent variable like cultivable land, mass media exposure and input use status (SSP) had directly contributed to characterize the performance of market value generation process of vegetable growers. The variable cultivable land has channeled the highest indirect effect of as many as eight (8) antecedent variables to exact impact on market value generation process. Lastly, it is to infer that even with the interactive agglomeration of fourteen (14) extraneous variables 68.97*percent *of variance embedded with the consequent variable, market value generation process of the vegetable growers could not be explained.*

Key words: *Market value generation; Vegetable grower; Multistage random sampling; Antecedent variables;*

In the changing global scenario for reorienting the traditional agriculture to enterprising agriculture the process value addition and product value addition are the two pillars. In this knowledge intensive agricultural society value generation process is the prime mover of market-led agriculture for producing preferred products with the help of available raw materials, value addition or value generation of any products and process is needed. In the recent scenario the Indian vegetables has its own importance in the global market. Accordingly, to meet the need of the global market, value generation process is the only weapon in case of traditional vegetable growers. In modernizing agriculture along with its unabated globalization, value generation has got inseparable and intricate role. The transformation of subsistence agriculture into enterprising one takes value generation as a concurrent phenomenon. Modernization of agriculture purely depends on the process of farm mechanization, high external input dependent, intricate with the knowledge based agricultural system where in the initiatives have been taken to affiliate modern agriculture by increasing national production priority. The value generation process needs some value added initiatives in case of Indian agriculture for coping the emerging challenges in the World agriculture. Value added initiatives can occur in

two dimensions innovation and co-ordination. In most technical sense, innovation is the introduction of new products, new process and or the opening of new markets and the routinization of innovation (*Coltrain,et. al. 2000*).Value added business developed to enhance the economic and financial situation of producer must be strategic in nature and construct (*Hambrick and Fredrickson,2001*).Value added agriculture occurs whenever a change in the physical state or form of an agricultural product or the adoption of the production method or handling process leads to an enhancement in the customer base for the product and a greater portion consumers expenditure spent on the product according to the producer (*USDA,2002*).The cultivated areas of horticultural crops are expanding very fast and resulted in increased production of vegetables. Despite increasing production levels in vegetables, the cultivation many a times is not remunerative to the farmers. The magnitude of loss will be increased as the production increases by adopting improved production technologies. Besides the fresh vegetables have also limitations for to export to foreign countries due to their short shelf life. In order to curtail the loss increased by the above factor. For most individual producers value-added business development is a mean to dealing with the increased strategic uncertainly confronting primary agriculture. The thinking is that by integrating forward, they will be able to improve their net revenue and overall profitability situation (*Ardichvilia et. al.2003*). An alternative method is to choose the option of market value generated product which generates better income. In this regard the present study envisages the market value generation process as taking place with the help of some socio-psychological and economic attributes of vegetable growers. It also delineates the intra and inter-level relationship in between the process of market value generation and the socio-economic and psychological attributes.

METHODOLOGY

The study was conducted at Haringhata block in Nadia district. Multistage random sampling procedure was followed for selection of village, block, district and respondents. The total number of respondents was eighty (80).The pilot survey was conducted for acquaintance with the local people. The fourteen (14) predictor variables and one (1) predicted variable had been considered for the study. The data were collected with the help of structured interview schedule by personal interview method. The data were processed into the statistical analysis like t-test, coefficient of correlation and path analysis. The Nadia district has been selected purposively because Nadia district has already been identified as the agri-export zone for certain crops. The vegetables are a pre-dominant in this district too. The Haringhata block had also been selected purposively because the pre-dominant features of crop production and maintenance in these areas and a potential zone for value generated products. Mollabelia Gram Panchayat has been selected purposively in the selected block viz. Haringhata. The selection has been done due to predominant characteristics of the soil parameters of these areas, good access as well as it had been identified previously as time management belts. An exhaustive list of vegetable growers in Mollabelia was prepared with the help of Panchayat and Block officials. Total number of farmers in this GP is about 422.Out of them, the number of total vegetable of Mollabelia village is about 165 which constitute the sampling frame of the study. So, from this sampling frame 80 vegetable growers have been randomly selected for data collection. A pilot survey was carried out to acquaint with local people, local resources, local languages etc. The fourteen predictor variables had been selected from different socio-psychological and socio-economic attributes of vegetable growers for the present study. The predictor variables like-Age (X1), Education (X2), Family size (X3), Cultivable land (X4), Homestead area(X5), Per capita income(X6), Cropping intensity (X7), Risk orientation(X8), Social participation (X9), Mass media exposure(X10), Extension contact (X11), Input use status(Urea) [X12], Input use status (SSP) [X13], Input use status(MOP) [X14] were included the study and market value generation process of vegetable growers was delineated as the predicted variables for the study. The structured schedule was prepared and pre-tested. Data were collected with the help of structured interview schedule developed for this study by personal interview method. The data were processed into the statistical analyses like t-test, coefficient of correlation and path analysis.

RESULTS AND DISCUSSION

It has found from Table 1 that the cultivable land (X4) and per capita income(X6) had recorded significant but negative correlation with the dependent variable, market value generation in vegetable enterprise .The variable cultivable land (X4), per capita income (X6) have behaved in the niche of correlation study, as they do for the componental Y (market value generation in vegetable). So, same corollaries could be drawn so far as correlation of coefficient are in concerned as for other as well. However small size cultivable land and for low income category of entrepreneurs having strong attitudinal disposition have been the best options for selecting vegetable enterprises as profitable persuades given a relentless market supports are there.

Table 1. Co-efficient of correlation between the Market value generation of vegetable growers (Y) and the independent variables.

Variables	Correlation co-efficient(r)
Age(X1)	-0.0439
Education(X2)	-0.1138
Family size(X3)	-0.1596
Cultivable land(X4)	-0.3749**
Homestead area (%) (X5)	0.1085
Per capita income(X6)	-0.2749*
Cropping intensity(X7)	0.1486
Risk orientation(X8)	0.0063
Social participation(X9)	0.1361
Mass media exposure(X10)	-0.1947
Extension contact(X11)	-0.0314
Input use status(urea) (X12)	-0.1482
Input use status(SSP) (X13)	-0.1866
Input use status(MOP) (X14)	-0.1512

**Significant at 5 % level, **Significant at 1 % level*

Table 2 represents the path analysis for delineating the direct and indirect effect of antecedent variables on the consequent variable, market value generation in vegetable enterprises. Taking a look into the tally of direct effect, it have been found that the variable cultivable land(X4), mass media exposure(X10) and input use status (SSP) X13 have rendered well discernible. So, in handling out the exogenous characters for placing the entire management system on a proper gear, these variables having tremendous cybernetic value merit proper and proportionate care. While estimating the indirect effect of same set of exogenous variable, it has been found that, the following variable have come out with intrinsic companionship and gregarious habbit for characterizing ,manipulating, maneuvering the endogenous character of predicted variable. Again ,the highest indirect effect of as many as eight variables have been routed through the exogenous variable, the

Table 2. Path analysis of Market value generation of vegetable growers (Y) with the antecedent variables

Variable	Total effect (r)	Direct effect	Indirect effect (r-direct)	Substantial indirect effect		
				I	II	III
Age (X1)	-0.0439	-0.0301	-0.0138	0.0789 (X2)	0.0577 (X4)	-0.0453 (X13)
Education (X2)	-0.1138	-0.1459	0.0321	-0.0766 (X4)	0.0455 (X13)	0.0269 (X3)
Family size (X3)	-0.1596	-0.1243	-0.0353	-0.0362(X12)	0.0343 (X4)	0.0316 (X2)
Cultivable land (X4)	-0.3749	-0.3983	0.0234	0.0629 (X13)	-0.0281 (X2)	0.0274 (X12)
Homestead area % (X5)	0.1085	0.0371	0.0714	0.0992 (X4)	-0.0420 (X13)	-0.0148 (X12)
Per capita income (X6)	-0.2749	0.0140	-0.2889	-0.3290 (X4)	0.0528 (X13)	-0.0403 (X2)
Cropping intensity (X7)	0.1486	0.0256	0.123	0.1404 (X4)	-0.0281 (X10)	-0.0252 (X13)
Risk orientation (X8)	-0.0063	0.0011	-0.0052	-0.0331 (X12)	0.0305 (X13)	0.0215 (X2)
Social participation (X9)	0.1361	0.0534	0.0827	0.0631 (X4)	-0.0209 (X10)	0.0111 (X14)
Mass media exposure (X10)	-0.1947	-0.1568	-0.0379	-0.0587 (X4)	0.0181 (X3)	0.0168 (X13)
Extension contact (X11)	-0.0314	0.0206	-0.0052	-0.0474 (X10)	-0.0423 (X4)	0.0313 (X13)
Input use status (urea) (X12)	-0.1482	-0.1409	-0.0073	0.0774 (X4)	-0.0453 (X13)	-0.0320 (X3)
Input use status (SSP) (X13)	-0.1866	-0.2681	0.0815	0.0934 (X4)	0.0248 (X2)	-0.0238 (X12)
Input use status (MOP) (X14)	-0.1512	-0.0740	-0.0772	-0.0361 (X2)	0.0233 (X3)	-0.0197 (X4)

Residual effect - 0.6897

size of cultivable land (X4) to imply this polyhedral character in the total and give wave of interactions as good as the performance of chellate compound .The residual effect being 0.6897,it is to infer that even with the interactive agglomeration of fourteen(14) extraneous variables 68.97 per cent of the variance embedded with the consequent variable could not be explained, this is rather a sizeable proportion left unexplained in this study to suggest for inclusion of more relevant , focused and objective variables in the framework of the study.

CONCLUSION

Provisioning the system of value generation process can usher the new era of market led agriculture through supply chain management system. It not only feeds the Indian peasants with innovativeness but also helps to earn the foreign exchequer from the global market. In such a research climate, market value generation process has come like anything to operationalize and facilitate modernization of agriculture. The present study clearly explained the area of market value generation process among the vegetable growers.

The present study revealed that the higher possession of cultivable land among vegetable growers had little or no involvement in market value generation process that signifies the profit maximization of the small land by the vegetable growers with the help of market value generation process. As a result to the higher per capita income of vegetable growers had also reflected the lower level of involvement in market value generation process. The mass media exposure of vegetable growers had outstandingly contributed towards the development of market value generation process which signifies the role of formal education system and external exposure for accessing the knowledge base to create a knowledge intensive market led enterprising agricultural niche.

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