

## Prediction of the Level of Participation in Agriculture Enterprise of Rural Women in Medinipur (East) District From Some Socio-economic and Motivational Factors

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### 1. Introduction

The agriculture in changing world prospective is focussing more and more attention in gender issues. While generation of employment and the propelling of income are becoming to cognate objects of modern agriculture in India, the women participation in agriculture enterprise makes it more significant and inevitable in terms of its quantitative and qualitative accomplishment. Mukhopadhyay (1987), observed a latent and implicit but formidable participation of women in the production of rice and its management. Nevertheless a huge participation is being articulated by the women in husbandry and management of rice, it is not counted and recorded and not even priced (Stephens *et al.*, 1992). Sometimes the hard and committed works done by the women are either being overlooked or low priced (Chaturvedi and Chaturvedi, 1999) in face of insurmountable gender bias and gender oppression. So, in assuring the gender participation in modern agricultural enterprises the present study was envisaged with the following objectives:

- To assess the nature and characteristics of relationships and interdependencies, linear and functional, between the causal variables and the consequent variables;
- To assess the direct and indirect pathway of the linear relationships in characterizing the web of interactions between the causal variables and the consequent variables.
- To develop and delineate a strategic intervention, extracted out of the web of interactions, towards framing a sustainable approach in different enterprises.

### 2. Methodology

The present study was carried out in four purposively selected blocks (Panskura-I, Panskura-II, Tamluk-I and Tamluk-II) of the subdivision (Tamluk) of a district Medinipur-East of West Bengal. There are 551 mouzas and 50 gram panchayats in the above four blocks out of which 56 mouzas from 18 gram panchayats were detected and selected which consists of sample women who fulfill the criteria for selection of respondents like, (i.) Respondents are married (husband alive), (ii) Respondents have atleast five years experience in practicing the four enterprises viz. agriculture, animal rearing, poultry rearing and fish farming. Young unmarried girls and widows normally belongs to a separate strata of our rural social system. Those who engaged in farm enterprises for a continuous periods of five years, have considerable consistency in their performance. Ninety seven sample women who fulfill the above two criteria were detected from the above mentioned location for collecting data for the present investigation. The consequent variable was level of participation in agriculture enterprise. The causal variables relating to situational and psychological characteristics of the respondents, such as [A] Situational characteristics – (1) Age ( $X_1$ ), (2) Education ( $X_2$ ), (3) Family education score ( $X_3$ ), (4) Caste ( $X_4$ ), (5) Family type ( $X_5$ ), (6) Family size ( $X_6$ ), (7) Investible surplus ( $X_7$ ), and (8) Information use index ( $X_8$ ) and [B] Psychological characteristic – (1) Level of aspiration ( $X_9$ ), (2) Management orientation in agriculture ( $X_{10}$ ), (3) Management orientation in animal rearing ( $X_{11}$ ), (4) Management orientation in poultry rearing ( $X_{12}$ ), (5) Management orientation in fish farming ( $X_{13}$ ), (6) Level of decisiveness in agriculture enterprise ( $X_{14}$ ), (7) Level of decisiveness in animal rearing enterprise ( $X_{15}$ ), (8) Level of



decisiveness in poultry rearing enterprise ( $X_{16}$ ), (9) Level of decisiveness in fish farming enterprise ( $X_{17}$ ), (10) Decisiveness in financial affairs of agriculture ( $X_{18}$ ), (11) Decisiveness in financial affairs of animal rearing ( $X_{19}$ ), (12) Decisiveness in financial affairs of poultry rearing ( $X_{20}$ ) and (13) Decisiveness in financial affairs of fish farming ( $X_{21}$ ). Education, family education score, family type, family size were measured with the help of scales developed by Pareek and Trivedi (1964). Caste, level of aspiration and management orientation were measured with the help of scales developed by Haque (1981), Sagar (1984) and Samanta (1977) respectively. The data were collected by personal interview technique with the help of structured interview schedule and the study was related to agricultural year 1999-2000. The data were analyzed using statistical methods such as coefficient of correlation, regression, multiple regression, step-down regression and path coefficient.

### 3. Result and Discussion

Table 1 presents the coefficient of correlation between level of participation in agriculture enterprise and rest twenty one other independent variables. The table depicts that the variables viz. education ( $X_2$ ), family size ( $X_6$ ), investible surplus ( $X_7$ ), information use index ( $X_8$ ), management orientation in agriculture ( $X_{10}$ ), management orientation in animal rearing ( $X_{11}$ ), management orientation in poultry rearing ( $X_{12}$ ), management orientation in fish farming ( $X_{13}$ ), level of decisiveness in agriculture enterprise ( $X_{14}$ ), level of decisiveness in animal rearing enterprise ( $X_{15}$ ), level of decisiveness in poultry rearing enterprise ( $X_{16}$ ), level of decisiveness in fish farming enterprise ( $X_{17}$ ), decisiveness in financial affairs of agriculture ( $X_{18}$ ), decisiveness in financial affairs of animal rearing ( $X_{19}$ ), decisiveness in financial affairs of animal rearing ( $X_{19}$ ), decisiveness in financial affairs of poultry rearing ( $X_{20}$ ) and decisiveness in financial affairs of fish farming ( $X_{21}$ ) were found to exercise significant bearing on level of participation in agriculture enterprise.

In the analysis, education ( $X_2$ ) was found to be significantly and negatively correlated with the level of participation in agricultural enterprise. Education is certainly a mean to eke out livelihood and also equally breeds on high expectations and ambitions. The negative correlation implies that for participation in agriculture, education, up to a certain level, might be a precondition. But the higher the educations, the higher would have been the expectations. In such a situation with an increase in educational level the degree of participation in agriculture had gone plunged. So, agriculture as an occupation was not found to be a preference for the individuals of higher educational attainment.

The negative bearing of the variable, investible surplus ( $X_7$ ) on level of participation in agricultural enterprise suggested that the increased income from the agriculture and allied enterprises had prompted the entrepreneur to move avertive in engaging herself into the same. She is now engaged more in to the allied aspects like marketing, harvesting, credit facilities and thinks may so happen where she withdrawing herself to some extent to deploy other persons for a better management where physical labour is must.

For other variable viz. level of decisiveness in agriculture enterprise ( $X_{14}$ ), level of level of decisiveness in animal rearing enterprise ( $X_{15}$ ), level of decisiveness in poultry rearing enterprise ( $X_{16}$ ), decisiveness in financial affairs of animal rearing ( $X_{19}$ ), decisiveness in financial affairs of poultry rearing ( $X_{20}$ ), and decisiveness in financial affairs of fish farming ( $X_{21}$ ) suggested that with the increase in physical



participation, the participation in decision making processes got plunge. That is why 'software' activities are inversely related with 'hardware' aspects. While quality participation keeps on increasing, the quantity aspect must have to make a room for it.

The variables viz. family size (X<sub>6</sub>), information use index (X<sub>8</sub>), management orientation in agriculture

**Table 1 Coefficient of Correlation Between the Consequent Variable Level of Participation in Agriculture Enterprise and Rest Twenty One Antecedent Variables.**

Variables	'r'
[X <sub>1</sub> ] Age	-0.0679
[X <sub>2</sub> ] Education	-0.5085**
[X <sub>3</sub> ] Family education score	0.0708
[X <sub>4</sub> ] Caste	-0.1246
[X <sub>5</sub> ] Family type	0.1851
[X <sub>6</sub> ] Family size	0.3161**
[X <sub>7</sub> ] Investible surplus	-0.2224*
[X <sub>8</sub> ] Information index	0.3778**
[X <sub>9</sub> ] Level of aspiration	-0.1332
[X <sub>10</sub> ] Management orientation (agriculture)	0.4724**
[X <sub>11</sub> ] Management orientation (animal rearing)	0.5776**
[X <sub>12</sub> ] Management orientation (poultry rearing)	0.3563**
[X <sub>13</sub> ] Management orientation (fish farming)	0.4041**
[X <sub>14</sub> ] Level of decisiveness in enterprise (agriculture)	-0.3309**
[X <sub>15</sub> ] Level of decisiveness in enterprise (animal rearing)	-0.2591*
[X <sub>16</sub> ] Level of decisiveness in enterprise (poultry rearing)	-0.2911**
[X <sub>17</sub> ] Level of decisiveness in enterprise (fish farming)	-0.1932
[X <sub>18</sub> ] Decisiveness in financial affairs (agriculture)	-0.1466
[X <sub>19</sub> ] Decisiveness in financial affairs (animal rearing)	-0.2042*
[X <sub>20</sub> ] Decisiveness in financial affairs (poultry rearing)	-0.2378*
[X <sub>21</sub> ] Decisiveness in financial affairs (fish farming)	-0.3632**

Tabulated value of 'r'<sub>0.01</sub> and 'r'<sub>0.05</sub> for 95 d.f. are 0.260 and 0.200 respectively, \*\* and \* significant at P= 0.01 and P = 0.05 respectively

farming had gone strongly positive in inviting more participation. The management orientation emerged here as a providers in arresting target oriented attentions and translations of pro-symbolisms into designed pro-activism to make participation meaningful, purposive and successful. The higher the family size, the more intense had been the participation and thus, it implied to an inevitable family labour support and involvement in small enterprises in rural social system since there had been the least or no options for an alternative absorption for family labour.

Table 2 presents regression analysis, taking level of participation in agriculture enterprise as consequent and rest other twenty-one variables as antecedent ones. It was depicted that, age (X<sub>1</sub>), education (X<sub>2</sub>), family type (X<sub>5</sub>), investible surplus (X<sub>7</sub>), information use index (X<sub>8</sub>) management orientation in agriculture (X<sub>10</sub>), management orientation in animal rearing (X<sub>11</sub>), management orientation in fish farming (X<sub>13</sub>) had recorded a significant 't' values for their respective partial regression coefficient to imply

(X<sub>10</sub>), management orientation in animal rearing (X<sub>11</sub>), management orientation in poultry rearing (X<sub>12</sub>) and management orientation in fish farming (X<sub>13</sub>) as did they articulate a strong positive bearing on level of participation in agriculture enterprise, evinced that informations had become a prerequisite for ushering higher level of participation. All sorts of orientation viz. management orientation in agriculture, animal rearing, poultry rearing and fish



that these had got substantive effect in characterizing and quantifying the level of participation in agriculture enterprise.

**Table 2 Regression Coefficient of Antecedent Variables on the Consequent Variable Level of Participation in Agriculture Enterprise.**

Variables	BETA	BETA x R	REG. COEF-B	S.E. of B	't'
[X <sub>1</sub> ] Age	-0.189	1.596	-0.064	0.022	2.881**
[X <sub>2</sub> ] Education	-0.363	22.959	-0.595	0.123	4.827**
[X <sub>3</sub> ] Family education score	0.084	0.741	0.020	0.015	1.224
[X <sub>4</sub> ] Caste	-0.114	1.760	-0.484	0.253	1.913
[X <sub>5</sub> ] Family type	-0.180	-4.132	-1.163	0.460	2.523*
[X <sub>6</sub> ] Family size	0.082	3.235	0.452	0.370	1.222
[X <sub>7</sub> ] Investible surplus	-0.133	3.682	0.00	0.00	2.412*
[X <sub>8</sub> ] Information index	0.296	13.883	0.229	0.049	4.686**
[X <sub>9</sub> ] Level of aspiration	0.015	-0.249	0.004	0.020	0.219
[X <sub>10</sub> ] Management orientation (agriculture)	0.159	30.458	0.434	0.121	3.582**
[X <sub>11</sub> ] Management orientation (animal rearing)	0.218	15.643	0.182	0.057	3.196**
[X <sub>12</sub> ] Management orientation (poultry rearing)	-0.152	-6.721	-0.121	0.112	1.083
[X <sub>13</sub> ] Management orientation (fish farming)	0.215	10.812	0.129	0.033	3.892**
[X <sub>14</sub> ] Level of decisiveness in enterprise (agriculture)	-0.251	10.330	-0.605	0.460	1.315
[X <sub>15</sub> ] Level of decisiveness in enterprise (animal rearing)	-0.211	-6.800	0.453	0.244	1.859
[X <sub>16</sub> ] Level of decisiveness in enterprise (poultry rearing)	0.016	-0.571	0.038	0.234	0.160
[X <sub>17</sub> ] Level of decisiveness in enterprise (fish farming)	0.184	-4.414	0.444	0.237	1.876
[X <sub>18</sub> ] Decisiveness in financial affairs (agriculture)	-0.096	1.752	-0.214	0.161	1.329
[X <sub>19</sub> ] Decisiveness in financial affairs (animal rearing)	-0.047	1.185	-0.101	0.213	0.473
[X <sub>20</sub> ] Decisiveness in financial affairs (poultry rearing)	0.123	-3.624	0.291	0.249	1.170
[X <sub>21</sub> ] Decisiveness in financial affairs (fish farming)	-0.188	8.476	-0.450	0.242	1.858

Multiple R-SQ = 0.8042; BETA = Partial contribution towards Y; BETA x R = Percentile contribution towards R<sup>2</sup> value of different antecedent variables; REG. COEF.-B= Regression coefficient of Xi (i=1,2,3, .....21) on Y; S.E. of B = Standard error of regression coefficient Tabulated value of 't' 0.01 and 't' 0.05 for 95 d.f. are 2.66 and 2.00 respectively, \*\* and \* significant at P = 0.01 and P = 0.05 respectively.

In assessing the percentile contribution in agriculture (30.458) had contributed the highest proportion followed by education (22.959) and management orientation in animal rearing (15.643). The multiple R<sup>2</sup> value had been found 80.42 per cent to imply that all variables put together 80.42 per cent of total variation had been rendered explicable.



**Table 3 Step Down Regression Analysis : The 13<sup>th</sup> Step Showing Regression of Antecedent Variables on the Consequent Variable Level of Participation in Agriculture Enterprise.**

Variables	BETA	BETA x R	REG. COEF-B	S.E. of B	't'
[X <sub>1</sub> ] Age	-0.212	1.936	-0.072	0.022	3.363**
[X <sub>2</sub> ] Education	-0.387	26.399	-0.634	0.107	5.951**
[X <sub>4</sub> ] Caste	-0.124	2.072	-0.527	0.252	2.093*
[X <sub>7</sub> ] Investible surplus	-0.138	4.114	0.000	0.000	2.451*
[X <sub>8</sub> ] Information use index	0.209	10.606	0.162	0.046	3.572**
[X <sub>10</sub> ] Management orientation (agriculture)	0.340	21.537	0.285	0.050	5.701**
[X <sub>11</sub> ] Management orientation (animal rearing)	0.262	20.324	0.220	0.053	4.110**
[X <sub>13</sub> ] Management orientation (fish farming)	0.240	13.011	0.144	0.034	4.215**

Multiple R-SQ = 0.7449; BETA = Partial contribution towards Y; BETA x R = Percentile contribution towards R<sup>2</sup> value of different antecedent variables; REG. COEF.-B = Regression coefficient of Xi (i=1,2,4, 7, 8, 10, 11 7 13) on Y; S.E. of B = Standard error of regression coefficient Tabulated value of 't' 0.01 and 't' 0.05 for 95 d.f. are 2.66 and 2.00 respectively, \*\* and \* significant at = 0.01 and P = 0.05 respectively.

The step-down regression analysis depicted that the following variables, age (X<sub>1</sub>), education (X<sub>2</sub>), caste (X<sub>4</sub>), investible surplus (X<sub>7</sub>), information use index (X<sub>8</sub>), management orientation in agriculture (X<sub>10</sub>), management orientation in animal rearing (X<sub>11</sub>), management orientation in fish farming (X<sub>13</sub>) had been retained at the 13<sup>th</sup> step (Table 3). These, however, elucidated their stupendous contribution (multiple R<sup>2</sup> = 74.49 per cent) towards the total variation of 80.42 per cent (Table 2). The delineation of strategy should have a consideration on judicious and effective manipulation of these factors identified at the 13<sup>th</sup> step after the apparently insignificant variables being statistically drifted of the fray.

Path analysis (Table 4 and Figure 1) presents the decomposition of coefficient of correlation to delineate direct and indirect effect of antecedent variables on consequent variable. It was found from the table that the variable, management orientation in agriculture (X<sub>10</sub>) exerted its highest direct effect (0.5185) on level of participation in agriculture enterprise. It was also unique to take note that the substantive indirect effect of caste (X<sub>4</sub>), family type (X<sub>5</sub>), family size (X<sub>6</sub>), investible surplus (X<sub>7</sub>) and management orientation in animal rearing (X<sub>11</sub>) had been channeled through this variable.

For the variable X<sub>14</sub>, i.e., level of decisiveness in enterprise (agriculture), as many as seven variable viz. education (X<sub>2</sub>), level of decisiveness in animal rearing enterprise (X<sub>15</sub>), level of decisiveness in poultry rearing enterprise (X<sub>16</sub>), level of decisiveness in fish farming enterprise (X<sub>17</sub>), decisiveness in financial affairs of agriculture (X<sub>18</sub>), decisiveness in financial affairs of poultry rearing (X<sub>20</sub>) and decisiveness in financial affairs of fish farming (X<sub>21</sub>) had wielded their highest indirect effect through it and thus, rightly appreciated the formidable role of this variable in steering and manipulating the nature and quality of level of participation in agriculture enterprise. The direct effect of this variable had gone with a negative value (-0.2510) to evince that higher extent of participation could have rationalized and reduced, where it went necessary, the need of mere physical participation. Some other variables which had exercised their direct and substantive effect in order were, education (-0.3631), information use index (0.2955) management orientation in animal rearing (0.2178), management orientation in fish



**Table 4 Path Coefficient Showing Direct and Indirect Effects of Twenty One Different Antecedent Variables on the Consequent Variable Level of Participation in Agriculture Enterprise.**

Variables	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>	X <sub>6</sub>	X <sub>7</sub>	X <sub>8</sub>	X <sub>9</sub>	X <sub>10</sub>
X <sub>1</sub>	-0.189	0.150	0.008	0.033	-0.003	-0.009	0.008	0.005	-0.005	-0.027
X <sub>2</sub>	0.078	-0.363	0.001	-0.034	0.025	0.007	-0.011	-0.036	0.006	-0.059
X <sub>3</sub>	-0.019	-0.005	0.084	0.008	-0.085	0.013	-0.002	0.004	-0.003	0.108
X <sub>4</sub>	0.055	-0.109	-0.006	-0.113	0.001	0.007	0.017	-0.022	0.001	0.070
X <sub>5</sub>	-0.003	0.050	0.040	0.000	-0.179	0.025	0.006	0.023	-0.005	0.018
X <sub>6</sub>	0.021	-0.031	0.014	-0.009	-0.056	0.082	0.024	0.021	-0.000	0.221
X <sub>7</sub>	0.011	-0.031	0.001	0.015	0.009	-0.014	-0.133	-0.029	0.001	-0.087
X <sub>8</sub>	-0.003	0.045	0.001	0.008	-0.014	0.005	0.013	0.295	-0.000	0.043
X <sub>9</sub>	0.074	-0.165	-0.021	-0.013	0.059	-0.003	-0.014	-0.001	0.015	-0.027
X <sub>10</sub>	0.009	0.041	0.017	-0.015	-0.064	0.035	0.022	-0.024	-0.000	0.518
X <sub>11</sub>	0.038	0.059	0.006	-0.020	-0.049	0.036	0.010	0.087	-0.001	0.171
X <sub>12</sub>	0.012	0.014	0.014	0.007	-0.052	0.030	0.018	-0.012	-0.001	0.461
X <sub>13</sub>	-0.005	0.080	0.000	0.002	-0.000	-0.001	-0.010	0.064	-0.000	0.004
X <sub>14</sub>	0.012	-0.134	0.006	-0.016	0.040	-0.017	-0.016	0.004	0.001	-0.103
X <sub>15</sub>	0.009	-0.104	0.007	-0.002	0.000	-0.010	-0.016	-0.035	0.001	-0.035
X <sub>16</sub>	0.011	-0.125	0.007	0.006	0.025	-0.008	-0.014	0.005	0.001	-0.107
X <sub>17</sub>	0.035	-0.096	-0.007	-0.008	0.055	-0.021	-0.017	-0.021	0.002	-0.145
X <sub>18</sub>	0.003	-0.070	0.005	-0.014	0.019	-0.001	0.012	0.061	0.000	-0.019
X <sub>19</sub>	0.006	-0.089	0.007	0.004	-0.013	-0.002	-0.012	-0.032	0.000	0.008
X <sub>20</sub>	-0.000	-0.097	0.004	-0.007	0.029	-0.011	-0.012	-0.000	0.000	-0.062
X <sub>21</sub>	0.015	-0.136	0.003	-0.124	0.036	-0.012	-0.015	-0.012	0.002	-0.075
TE(r)	-0.067	-0.508	0.070	-0.124	0.185	0.316	-0.222	0.377	-0.133	0.472
DE	-0.189	-0.363	0.084	-0.113	-0.179	0.082	-0.133	0.295	0.015	0.518
TIE	0.121	-0.145	-0.013	-0.011	0.364	0.233	-0.089	0.082	-0.148	-0.046

Continued ...

	X <sub>11</sub>	X <sub>12</sub>	X <sub>13</sub>	X <sub>14</sub>	X <sub>15</sub>	X <sub>16</sub>	X <sub>17</sub>	X <sub>18</sub>	X <sub>19</sub>	X <sub>20</sub>	X <sub>21</sub>
X <sub>11</sub>	-0.044	0.009	0.005	0.016	-0.010	-0.00	-0.034	0.001	0.001	0.000	0.015
X <sub>12</sub>	-0.036	0.006	-0.047	-0.093	0.060	0.005	0.049	-0.018	-0.011	0.033	-0.070
X <sub>13</sub>	0.017	-0.025	0.001	-0.018	0.019	0.001	-0.016	-0.006	-0.004	0.006	-0.006
X <sub>14</sub>	0.018	-0.027	-0.015	0.006	0.031	0.000	-0.010	-0.007	-0.005	-0.004	-0.011
X <sub>15</sub>	0.059	-0.044	0.000	0.057	-0.000	-0.002	-0.056	0.010	-0.003	-0.020	0.038
X <sub>16</sub>	0.097	-0.056	-0.003	0.054	-0.025	-0.001	-0.047	0.001	0.001	-0.017	0.028
X <sub>17</sub>	-0.017	0.021	0.016	-0.039	0.025	0.001	0.024	0.009	-0.004	0.011	-0.022
X <sub>18</sub>	0.064	0.006	0.047	-0.003	-0.025	0.000	-0.013	-0.020	0.005	-0.000	0.008
X <sub>19</sub>	-0.019	0.013	-0.010	-0.031	0.014	0.001	0.025	0.000	-0.001	0.007	-0.034
X <sub>20</sub>	0.072	-0.137	0.001	0.050	-0.014	-0.003	-0.051	0.003	-0.000	-0.014	0.027
X <sub>21</sub>	0.217	-0.048	0.031	0.053	-0.033	-0.002	-0.024	0.010	0.003	-0.024	0.040
X <sub>11</sub>	0.061	-0.151	-0.009	0.033	0.001	-0.002	-0.054	-0.004	-0.003	-0.010	0.016
X <sub>12</sub>	0.031	0.006	0.215	0.017	-0.011	0.000	-0.004	0.005	0.002	-0.008	0.009
X <sub>13</sub>	-0.046	0.020	-0.015	-0.251	0.139	0.013	0.142	-0.052	-0.026	0.103	-0.154
X <sub>14</sub>	-0.034	-0.001	-0.012	-0.166	0.211	0.008	0.084	-0.044	-0.039	0.065	-0.131
X <sub>15</sub>	-0.034	0.022	0.000	-0.208	0.115	0.015	0.115	-0.036	-0.021	0.081	-0.134
X <sub>16</sub>	-0.029	0.045	-0.004	-0.194	0.096	0.009	0.183	-0.034	-0.017	0.079	-0.116
X <sub>17</sub>	-0.024	-0.007	-0.011	-0.137	0.097	0.006	0.066	0.096	0.018	0.070	-0.094
X <sub>18</sub>	-0.016	-0.010	-0.012	-0.142	0.178	0.007	0.069	-0.038	-0.046	0.060	-0.111
X <sub>19</sub>	-0.038	0.012	-0.014	-0.212	0.112	0.010	0.118	-0.055	-0.022	0.122	-0.123
X <sub>20</sub>	-0.047	0.013	-0.011	-0.207	0.147	0.011	0.113	-0.048	-0.027	0.080	0.187
X <sub>21</sub>	0.577	0.356	0.404	-0.330	-0.259	-0.291	-0.193	-0.146	-0.204	-0.237	-0.363
X <sub>11</sub>	0.217	-0.151	0.215	-0.251	0.211	0.015	0.183	-0.096	-0.046	0.122	-0.187
X <sub>12</sub>	0.359	0.508	0.188	-0.079	-0.470	-0.306	-0.376	-0.050	-0.157	-0.360	-0.175

Residual effect = 0.1958, TE (r.) = Total effect (Correlation coefficient), DE = Direct effect, TIE = Total indirect effect

farming (0.2152), level of decisiveness in animal rearing enterprise (0.2111), age (-0.1890), decisiveness in financial affairs (fish/ farming) (0.1877), level of decisiveness in fish farming enterprise (0.1837) and family type (0.1796).



The residual effect was found 0.1958, i.e., only 19.58 per cent of the variation had not been explained. This small value of residual effect indicated that selection of the variable and their number had recorded a fair amount of justification.

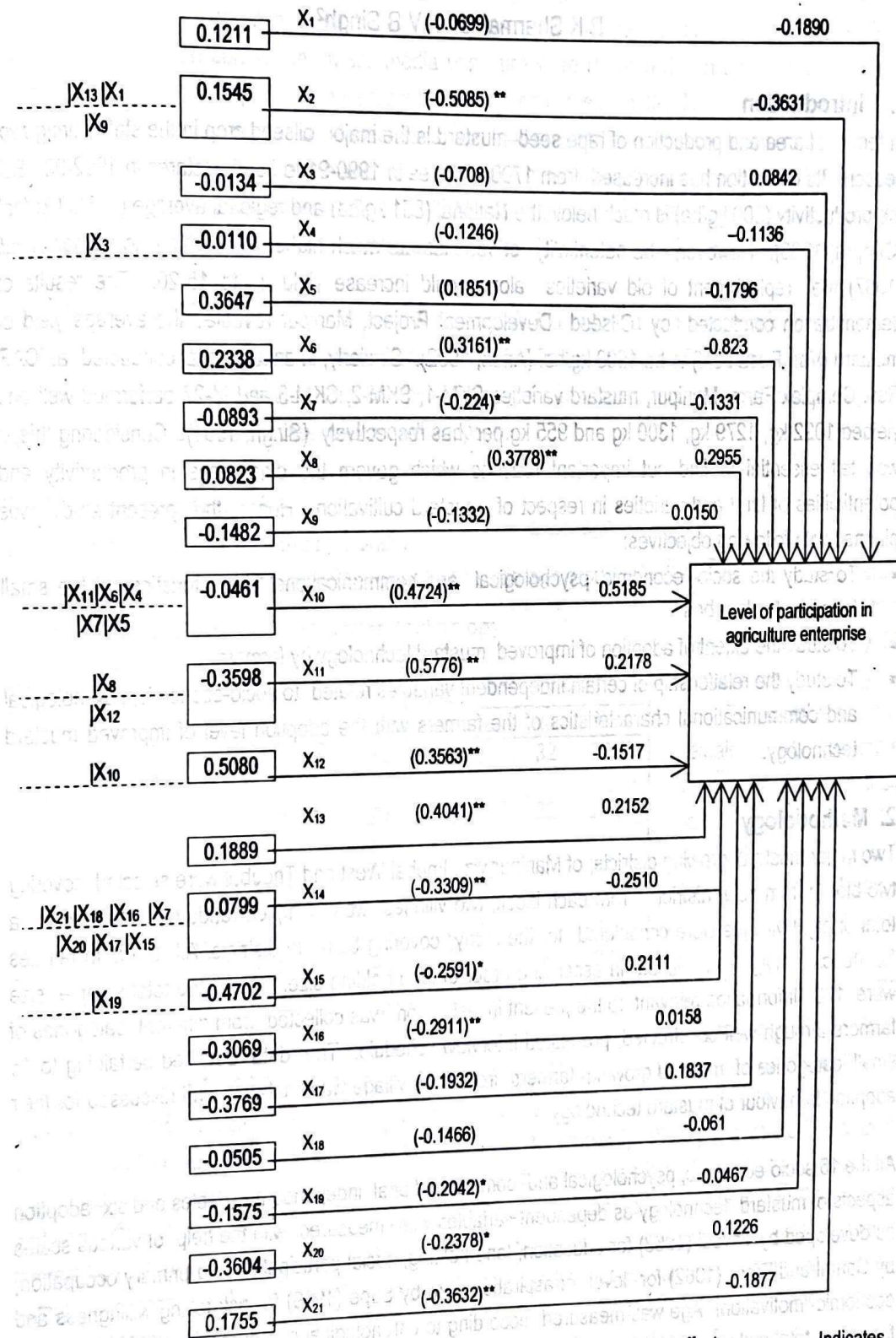
#### 4. Conclusion

The management of agriculture is influenced by both quality and quantity through the participation of women and it is also a unique observation that with the cognate operations of other enterprises viz. dairy, poultry, fishery etc. it is presenting a farming system model where each and every component is influencing and being influenced the other and by the other enterprises. Decisioning process, orientation, education etc. are the factors, socio-personal and psychological in nature, to play immensely in imbuing and supporting the entire system function. More study shall reveal that in the changing milieus of management sciences the motivational entrepreneurship are becoming the product of some non-monetary factors inevitably along with the material resource factors. Material non-material what so ever, the factors are always framing reticulate nature of interdependencies which are not only plural in numbers but also organically synchronized.

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Figure 1 Path Diagram Showing the Direct and Indirect Effect of Antecedent Variables on the Consequent Variable Level of Participation in Agriculture Enterprise



( ) Indicates 'r' value, → Indicates direct effect, □ indicates total indirect effect, ..... Indicates largest indirect effect, Residual effect = 0.1958\*\* and \* significant at P = 0.01 and P = 0.05 respectively