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Impact of Entrepreneurship on Economic Growth of Farmers in Manipur

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ABSTRACT

The present study was carried out on 400 households, belonging to 4 blocks of Senapati district of Manipur during 2013-15. Senapati district was selected keeping in view of major concentration of tribals with highest pig population in the state of Manipur. A sample of farmers comprising of 100 respondents from each block was selected for the present study. Locations had significant (P<0.01) influence on annual family income of farmers obtained from various sources viz. piggery, total livestock and total income from all sources. However, its effect had nonsignificant influence on annual family income came from other livestock except piggery and other sources (Agriculture, Horticulture etc.) Socio-personal variables such as age, family size and education were not significantly correlated to the economic growth of farmers. However, herd size of pigs had positively and significantly correlated with annual income of family from there different sources.

Key wards: Economic Growth, Entrepreneurship and Pigs.

INTRODUCTION

Entrepreneurship development in agriculture and animal husbandry in the Manipur State is imperative to attain self sufficiency in food grains and animal protein including solving the problem of unemployment particularly in rural areas. Ram *et. al.,* (2014) revealed that the majority (66 %) of agricultural Entrepreneur of Imphal led medium extent of entrepreneurial behavior. Identifying the impediments to create a new business, in the society, can help to eliminate the barriers and to make entrepreneurship accessible to all. It has been observed that the people of the Senapati district depend on agriculture and livestock farming specially pigs. The scheduled tribe people of the district considered pork as delicacy on precious occasions and traditional rituals. Hence, an attempt has been made to identify the individual and contextual variable which inhibits or promote entrepreneurship among the farmers of Senapati district of Manipur.

METHODOLOGY

The present study was carried out on 400 households belonging to Senapati district of Manipur during 2013-15. Out of total 6 blocks in the Senapati district, 4 blocks were selected keeping in view of major concentration of tribals with the highest pig population in the state of Manipur. A proportional random sample was drawn from each of the 4 blocks in the district. A sample of farmers comprising of 100 respondents from each block was selected for the present study. The investigation took about 1½ years in data collection, involving several field visits to each village. The assistance of village leaders, animal husbandry personal, social workers and school teachers were availed for locating and interviewing the tribal pig owners. The primary data were collected using pre-tested structured interview. The observations on various parameters during the study have been analysed using appropriate statistical techniques.

RESULTS AND DISCUSSION

Extent of economic growth of rural farmers was identified through annual income of family from various sources *viz.* pig farming, other livestock, agriculture, horticulture *etc.*

Table 1: Analysis of variance showing the effect of villages on family income from different sources.

Source of variation	Df	Mean Squares				
		Piggery only	Other livestock (Poultry, Duckery etc.)	Total livestock	Other sources (Agri., Hort., etc.)	All sources (Livestock, Agri. Horti. etc.)
Between village	19	145239342.11**	10533026.32^{NS}	168544605.27**	124160000.00**	546043552.63**
Within village	380	1717644.371	10675131.58	27381184.21	24829473.68	55179605.26

NS – Non significant; ** = P<0.01

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Income from pig farming only: Table-1 indicated highly significant effect of villages on annual family income from pig farming. Critical review of data depicted in Table-2 revealed significantly higher annual income from pig farming to the farmers belonging to Koide Makha village (Rs 26,850.00 + 1036.89) of Purul block which did not differ significantly from rest of the villages of Purul and Mao Maram blocks except Mao Pungdung village (Rs 22,100.00 + 710.45) of Mao Maram block.

Significantly higher income from pig farming was noticed in almost all the 10 villages of Purul and Mao Maram blocks in comparison to Kangpokpi and Saitu Gamphazol blocks (Table-2). The lowest annual income obtained in 10 villages of Kangpokpi and Saitu Gamphazol blocks did not differ significantly among themselves (Table-2). The significantly highest income obtained by the pig farmers belonging to villages of Purul and Mao Maram blocks in comparison to other two blocks might be due to fact that the pig farmers of former two blocks were progressive in nature with better feeding, housing and managemental practices coupled with larger herd size of pigs.

Income from other livestock (Poultry, Duckery *etc.*): Villages has nonsignificant effect on annual income obtained from other livestock except piggery. Average annual income from above sources depicted in Table-2 showed no any definite trend with respect to villages of each block. The annual income from these sources in different villages varied from ₹ 4,950.00 to ₹ 7,450.00. Non-significant with meager annual income from other livestock was mainly due to fact that the farmers were purposively selected during the studies who were maintaining pigs for their livelihood and nutritional security.

Income from total livestock: It is evident from Table-1 that village had highly significant effect on annual income from all the livestock sources. Critical different test presented in Table-2 indicated significantly highest income from total livestock in Purul and Mao Maram blocks in comparison to Kangpokpi and Saitu Gamphazol blocks. However, differences among 10 villages of Kangpokpi and Saitu Gamphazol blocks and again among 10 villages of Purul and Mao Maram blocks were nonsignificant statistically. The reason for higher income among farmers belonging to Purul and Mao Maram blocks has already been discussed in earlier chapter.

Income from other sources (Agri., Horti., *etc.*): Table-1 showed highly significant effect of villages on income from other sources i.e. Agriculture, Horticulture etc. Almost similar trend was observed as found in income from total livestock. The results indicated that the differences among 10 villages of Kangpokpi and Saitu Gamphazol blocks and again differences among ten villages of Purul and Mao Maram blocks did not differ significantly among themselves (Table-2) in majority of the cases. The highest (₹ 24,200.00) and lowest (₹ 17,250.00) annual income from these sources were noticed in Maram bazar village of Mao Maram block and Khengjang village of Saitu Gamphazol block, respectively.

Table 2: Village wise average (₹) family income from different sources.

Villages	Annual income from various sources				
	Piggery only	Other livestock (Poultry, Duckery etc.)	Total livestock	Other sources (Agri., Horti. etc.)	Income from all sources (Livestock, Agri., Horti., etc.)
Taphou Kuki	20600+734.13 ^{ab}	6750+561.37	27200+944.79 ^{a}	18700+1066.47 ^{abc}	45900+1283.29 ^{a}
South Changoubung	19350+792.32 ^{a}	6850+715.52	26200+1173.39 ^{a}	21400+1336.53 ^{bcd}	47600+1947.19 ^{ab}
Kangpokpi	20850+491.81 ^{ab}	5700+503.15	26550+730.81 ^{a}	17650+ 901.09 ^{a}	44200+1257.82 ^{a}
Hengbung	20850+603.83 ^{ab}	6100+532.62	26950+872.01 ^{a}	18150+719.19 ^{a}	45100+1250.05 ^{a}
Haipi	19300+700.00 ^{a}	7000+481.23	26300+817.89 ^{a}	17550+682.39 ^{a}	43850+1124.55 ^{a}
Sapormeina	20150+357.44 ^{ab}	6000+507.83	26100+706.73 ^{a}	18500+741.62 ^{ab}	44600+941.44 ^{a}
Motbung	20400+608.71 ^{ab}	6150+482.73	26550+847.52 ^{a}	18750+797.61 ^{abc}	45300+ 997.63 ^{a}
Lhangkichoi	20600+678.23 ^{ab}	4950+921.88	25550+1047.49 ^{a}	17700+1105.25 ^{a}	43250+1277.08 ^{a}
Leikot	20850+751.40 ^{ab}	5750+415.96	26500+844.49 ^{a}	18100+787.73 ^{a}	44600+1263.66 ^{a}
Khengjang	22100+794.39 ^{bc}	5950+320.16	28050+805.95 ^{ab}	17250+710.36 ^{a}	45300+1304.04 ^{a}
Purul Atongba	25900+1742.50 ^{d}	6650+669.94	32550+2109.47 ^{d}	22750+1233.04 ^{d}	55300+2771.19 ^{cd}
Purul Akutpa	24350+901.09 ^{cd}	7400+1014.11	31750+1132.94 ^{cd}	22550+2214.16 ^{d}	54300+2206.57 ^{cd}
Oinam	25300+ 976.29 ^{d}	7450+955.52	33100+1311.69 ^{d}	23100+ 931.61 ^{d}	56200+1362.27 ^{cd}
Koide Mathak	25950+1132.01 ^{d}	5050+646.75	31000+1516.58 ^{bcd}	23250+1760.49 ^{d}	54250+2702.70 ^{cd}
Koide Makha	26850+1036.89 ^{d}	6500+838.23	33350+1522.25 ^{d}	23200+759.50 ^{d}	56550+1645.72 ^{cd}
Willong	25400+1117.79 ^{d}	6200+659.35	31600+933.02 ^{cd}	22750+1033.33 ^{d}	54350+1689.40 ^{cd}
Tadubi	25750+1048.49 ^{d}	5400+779.56	31150+1140.81 ^{bcd}	23250+777.56 ^{d}	54400+1367.67 ^{cd}
Maram Bazar	25850+1238.15 ^{d}	7200+1042.77	33050+1457.28 ^{d}	24200+1101.67 ^{d}	57250+1630.10 ^{d}
Mao Pungdung	22100+710.45 ^{bc}	6900+975.76	28600+1034.66 ^{abc}	21950+1310.84 ^{d}	50550+1752.40 ^{bc}
Katomei	25950+1098.98 ^{d}	6400+933.02	32350+1390.33 ^{d}	21650+1003.35 ^{cd}	54000+1908.43 ^{cd}
CD value	2568.76	NS	3243.26	3088.44	4604.11

Each value is the average of 20 observations.
Mean under same superscript did not differ significantly, CD - Critical Difference, NS - Nonsignificant.

Total annual income from all sources: Analysis of variance presented in Table-1 showed highly significant effect of villages on total annual income from all sources. Further, critical difference test (Table-2) revealed significantly higher annual income from all sources in all the 10 villages of Purul and Mao Maram blocks in comparison to 10 villages of Kangpokpi and Saitu

Gamphazol blocks. However, differences among all the 10 villages of Kangpokpi and Saitu Gamphazol blocks and again all the 10 villages of Purul and Mao Maram blocks were nonsignificant statistically. The higher income in Purul and Mao Maram blocks in comparison to Kangpokpi and Saitu Gamphazol blocks might be due to the fact that they earned more money from pig farming also due to (i) faster growth rate of pigs (ii) larger herd size (iii) better reproductive performances i.e. (a) high litter size at birth and at weaning (b) early maturity coupled with early age at first farrowing (c) reduced farrowing interval. All these factors are responsible for more total annual income in later two blocks than those of former two blocks.

Percent annual income of pig farmers from different sources: Table-3 showed more income in all the four blocks from pig farming, the value being varied from 44.57 per cent in Kangpokpi block to 46.66 per cent in Saitu Gamphazol block. The income from other livestock was very less ranging between 11.61per cent to 14.29 per cent of total income as compared to pig farming. This might be due to fact that all the farmers selected under present study were pig farmers resulting into more income from pig farming than other livestock farming. The income from other sources i.e. agriculture, horticulture etc. were varied from 40.47 per cent to 42.11per cent only. Critical review of data presented in Table-3 clearly indicated that the main source of income for their livelihood and nutritional security of the study areas came from livestock farming. Livestock farming contributes about 57.53 per cent to 58.86 per cent income of total income from all sources.

Table 3: Percent annual income of pig farmers from different sources.

Block	Village	Percent annual income from different sources		
		Piggery only	Other livestock (Poultry, Duckery etc.)	Other sources (Agri., Horti., etc.)
Kangpokpi	Taphou Kuki	44.80	14.70	40.50
	South Changoubung	40.66	14.39	44.95
	Kangpokpi	47.17	12.89	39.94
	Hengbung	46.21	13.50	40.29
	Haipi	44.00	15.94	40.06
	Pooled	44.57	14.29	41.15
Saitu Gamphazol	Sapormeina	45.18	13.43	41.46
	Motbung	45.00	13.54	41.37
	Lhangkichoi	47.62	11.42	40.90
	Leikot	46.74	12.80	40.56
	Khengjang	48.76	13.11	38.06
	Pooled	44.66	12.87	40.47
Purul	Purul Atongba	46.83	12.02	41.14
	Purul Akutpa	44.84	13.62	41.52
	Oinam	45.01	13.25	41.10
	Koide Mathak	47.83	9.30	42.85
	Koide Makha	47.48	11.49	41.02
	Pooled	46.47	11.95	41.58
Mao Maram	Willong	46.69	11.39	41.82
	Tadubi	47.33	9.92	42.64
	Maram Bazar	45.15	12.57	42.27
	Mao Pungdung	43.76	11.88	43.46
	Katomei	48.06	11.86	40.10
	Pooled	46.28	11.61	42.11

Our findings are in conformity with the findings of Oraon (1989) who indicated majority of family income comes from livestock and poultry. Biradar (1988) also observed that rural households earned on an average 50% of total income from Animal Husbandry. Our finding was also supported by Sharma and Handa (1988) who indicated that there is enough scope of augmenting family income and employment in rural areas though Animal Husbandry if better quality of animals and ready marketing facilities are made available.

Relationship of socio-personal variables with socio-economic parameters: It may be observed from the values of co-efficient of correlation (Table-4) that variable age, family size and education were non significantly correlated to the extent of economic growth of farmers majority of cases. Nonsignificant correlation of family size with entrepreneurial behaviors of farmers was also reported by Ram et al. (2014) in Imphal district of Manipur. On the contrary, these workers observed significant influence of age and education on above parameter.

Herd size of pigs had positively and significantly correlated with annual income of family from three different sources viz. total livestock, piggery only and total annual income in all the four blocks under study (Table-4). It is as per our expectation because the three variables mentioned above were directly related to income from pig farming. If the herd strength of pigs increased then income from sale of pigs must be increased due to larger numbers of pigs sold per year by the particular family. On the contrary, herd size of pigs had nonsignificant relationship with annual income from other livestock and other sources i.e. agri., horti, etc. It is also as per our expectation because herd size of pigs had no any contribution of income to above two variables resulting into nonsignificant relationship between these variables (Table-4).

Table 4: Relationship of socio-personal variables with socio-economic parameters in different blocks.

Variables	Income from different sources				
	Total livestock	Piggery only	Other Livestock (Poultry, Duckery etc.)	Others / Agri., Horti., etc.	Total annual income
Kangpokpi block					
Age	-0.061 NS	-0.013 NS	-0.079 NS	-0.145 NS	-0.142 NS
Family size	0.183 NS	0.234 *	0.026 NS	0.111 NS	0.197 NS
Herd size	0.698 **	0.871 **	0.082 NS	-0.041 NS	0.420 **
Education	-0.058 NS	0.105 NS	-0.217 *	-0.122 NS	-0.125 NS
Saitu Gamphazol block					
Age	-0.146 NS	0.012 NS	-0.231 *	0.013 NS	-0.101 NS
Family size	0.034 NS	0.164 NS	-0.137 NS	0.088 NS	0.089 NS
Herd size	0.737 **	0.884 **	0.114 NS	-0.038 NS	0.529 **
Education	0.167 NS	0.129 NS	0.113 NS	0.021 NS	0.141 NS
Purul block					
Age	0.099 NS	0.086 NS	0.073 NS	-0.026 NS	0.053 NS
Family size	0.117 NS	0.163 NS	-0.009 NS	-0.190 NS	-0.045 NS
Herd size	0.759 **	0.916 **	0.112 NS	0.187 NS	0.660 **
Education	0.245 *	0.175 NS	0.187 NS	0.120 NS	0.253 *
Mao Maram block					
Age	0.051 NS	0.118 NS	-0.078 NS	0.106 NS	0.102 NS
Family size	0.165 NS	0.177 NS	0.029 NS	0.048 NS	0.148 NS
Herd size	0.685 **	0.937 **	-0.211 *	0.148 NS	0.582 **
Education	0.232 *	0.188 NS	0.109 NS	0.023 NS	0.181 NS

NS = Nonsignificant, ** P(<0.01), *P(0.05)

CONCLUSION

Among livestock, pigs played a vital role in enhancing family income of respondents for their livelihood and nutritional security in comparison to other livestock and poultry besides other sources from agriculture, horticulture etc. Livestock and poultry farming contributed 57.53 to 58.66 per cent of income out of their total annual income from various sources. But when it was compared with income from livestock, pigs contributed above 80 per cent of total income of livestock and poultry.

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