

CHAPTER FIRST

INTRODUCTION AND OBJECTIVES OF THE STUDY

CHAPTER : I

1.1 INTRODUCTION

The relationship between the size of the producing unit of the firm and efficiency has been an old fundamental topic discussed in the economic literature. However, it became important in recent years in the context of Indian agricultural economy, largely, due to the availability of sizeable body of fairly reliable farm management data, substantial literature has grown both theoretical as well as empirical.

The size of holding owned by a family unit determines its economic and social position in the society in our country. The terms holding and farm are very often used as synonymous. Technically, speaking they are not because holding is a legal concept indicating parcel or parcels of land hold under one lease engagement or grant as contract or in the absence of any such lease etc. Under one tenure. The term 'farm' indicates the actual unit of cultivation Dimensionally they may or may not coincide and very often they do not. According to Dantawala and Shah, ⁽¹⁾ "Holding is defined as comprising all plots under common ownership or cultivation as a single unit by an individual joint family or more than one

farmer on a joint basis. The land may be taken on lease or may be partly rented.

Farm size is a topic of extreme interest in agriculture. There has been debate over what should be appropriate size of the farm because the size of the farm as in the case of manufacturing - industries, decisively affects the income from agriculture. We have optimum size of unit, a size which in existing conditions - would yield the best results to the farmer.

1.2 REVIEW OF LITERATURE ON THE SUBJECT

In this chapter, the review of literature relating to this has been first presented in what follows -

Prof. A. K. Sen, ⁽²⁾ in his article based on the empirical data put out by the first series of the farm management studies observed that "by ¹ large productivity per acre decreases with size of holding. This trend with gross output per acre is observed more or less strongly in practically all the regions studied". That means - there is an inverse relationship between size of holding and productivity per acre. This issue attracted the attention of many economists in subsequent years and a large number of articles debating ^{over} it have been published.

Even though qualitatively a large holding does not differ much from a small holding the farmer is subject to a low intensity of use notwithstanding the larger number of parcels. The number of attached farm workers per acre of operated area is substantially lower for a larger holding, Compared to small holding. Even though irrigation facilities are available as much to the large holdings as to the small ones, the proportion of operated area for the large holdings. Though the investable surplus is known to be more for a large holders, The application rates for chemical fertilizer are lower compared to the small holders.

In view of the above considerations, it seems that the odds^{are} in favour of small holdingsⁱⁿ having a higher output per acre as compared with large holdings. Non availability of labour during the Peak seasons is often referred to as the main factor affecting productivity in large holdings and perhaps this might explain the low intensity of use of land in large holdings. But this may not be the efficient management on the part of large holdings. Theⁱⁿability to effectively supervise distant parcels can result in a low intensity of use of land low application rates of fertilizer and a low co-efficient for irrigation.

Prof. S. K. Sanyal,⁽³⁾ in his article based on empirical data remarks that the large holdings use less labour, less irrigation and less fertilizer per acre.

The land holders survey show that, the percentage of net area sown to total area operated does not very much depend over the holding sizes. This shows that qualitatively that small and large holdings may not differ much. The real difference between them, however, lies in the intensity of use as is seen from the percentage of gross area sown to total operated area. This percentage falls sharply as the holding size increases.

Small holdings thus make greater use of chemical fertilizers than large ones contrary, to what has been anticipated - Hanumantha Rao,⁽⁴⁾ "Even though the application of labour may be higher among smaller farms they may lag behind the larger ones in regard to the application of technologically new inputs such as fertilizers - improved seeds and insecticides etc, Owing to their low investible surplus. It will be seen that both the ratio's decrease with increasing size of holding thus bringing out the fact that the labour and irrigation inputs are higher for smaller holding in comparison to large holding.

Prof. A. P. Rao,⁽⁵⁾ made a similar study relating to size of holding and productivity In his study,

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productivity, remained constant over all holding sizes in the villages which indicates that holding size has no effect on productivity. It is also seen that, intensity of irrigation as well as per acre application of the three inputs together remained constant over all holding sizes. Also the intensity of land utilization is constant over all holdings sizes. This is also contrary, to the findings of the farm management studies. Even when holding size is represented by gross area instead of net area the same results are obtained for all the villages.

The important conclusion which emerges from his study is that whenever, there is no significant difference in the proportions of area irrigated among the different size groups of holdings the output per acre is found to be constant. The findings of the farm management studies may therefore, be attributable to the irrigation factor. Secondly, holding size is inclusive of current fallow whereas in the present study holding size is exclusive of current fallow land, Increase more than proportionately as the holding size increases, the results of the farm management studies, namely, decrease in productivity as well as inputs per acre with increase in holding size may perhaps be explained as being due to variations in current fallow.

Prof. Bhattacharya N., and Saini, U. R.,⁽⁶⁾ in their article say that, the existence of the inverse relation has

been widely accepted and attributed among other factors to higher intensity of cropping for the smaller holdings where the proportion of irrigated land is relatively high.

But, Krishna Bharadwaj,⁽⁷⁾ claims that the small farmers were superior to large ones on purely economic grounds. An adequate explanation is important not only for policy formulation but also for assessing the future possibilities whether the productivity differentials are a characteristic that could persist making the small present family farms a historically viable form or whether their relative advantage rests a specific conjuncture subject to change or whether it is more of static reflection of a economically vulnerable position of the small operators.

Explanations that have been advanced fall mainly into one or the other of following categories (a) difference in techniques, the small holders using technically superior methods of production, (b) qualitative differences in factor endowments either land or labour bullock power or irrigation. These are not strictly mutually exclusive categories and the overlap is particularly evident when technique is identified with a vector of inputs then the distinction between (a) or (c) vanishes

We may interpret technique as associated with a particular type of productive equipment and hence differences in techniques as different types of productive equipment in operation. Attitudinal differences if present should be reflected in one or the other of these factors whether the difference is in matter of risk-taking or entrepreneurial ability or quality of management it should ultimately reflect it self either in the adoption or otherwise of better techniques or in willingness or otherwise to apply inputs intensively.

If higher value productivity on small farms could be ascribed to superior techniques, it would provide basis for asserting that small farms are progressive and the relevant question about future possibilities would be whether their relative advantage would continue within the specified horizon.

As for the qualitative differences in lands some evidence can be found which suggests that smaller holdings could constitute better quality land. Again it is analytically necessary although in practice difficult to separate between qualitative differences fertility augmenting inputs.

Berry and Cline,⁽⁸⁾ (1979) have shown that the small sector makes better use of its available land than

does the large farm sector. The central policy implication of the analysis is that land redistribution into family farms is an attractive policy instrument for raising production and for improving rural employment and equality of income distribution.

According to Prof. Pol Barbier,⁽⁹⁾ the productivity of the land is regularly decreasing as the size of the farm increases. Thus in a recent text-book on development economics, We can read that recent evidence from a wide range of third world countries clearly demonstrates that small farms are more efficient producers of most^{of} agricultural commodities. The relative productivity of small and large farms from both theoretical and empirical stand points and reached the general conclusion that the farmer normally generate higher land productivity.

C. H. Hanumanth Rao, suggested in his paper that Indian agriculture is characterise by constant returns to scale. The explanation for variations in productivity per acre as farm size changes lies in the level of various inputs associated with farm size. The higher output per acre ~~on~~ smaller farms is really a function of the higher input of labour. The analysis here suggests that the explanation for the behaviour of net revenue observed in the farm management studies lies not in the valuation of family

labour at the ruling wage rate, but perhaps in the productivity of bullock labour and variations in it over different size classes of farm with returns to scale being constant the explanation for variations in the productivity per acre as farm size changes lies in the level of various inputs associated with the farm size. It would be quite in order to state that the higher output per acre in smaller farms is really a function of the higher input of labour per acre the other factors varying in the same direction as labour. It may be added that relatively higher input of labour on smaller farms contributes to the associated higher intensity of cropping and the choice of crop mix which in turn raise overall productivity per acre.

Dipak Muzumdar's⁽¹⁰⁾ observation that "the higher output per acre in smaller farms is really a function of higher input of labour per acre the other factors varying more or less in the same proportion as labour". It may not be out of place to point out that the intensity of cultivation on the smaller farms is generally higher than on the large farms. Larger inputs of labour on these (small) farms are thus expended not on one crop alone but on more than one crop grown during the period of production on the smaller farms.

1.3 HYPOTHESIS OF THE STUDY

The hypothesis that we are taking up for the present study could be worded as "Larger the size of the

family holding, higher is the revenue productivity".

1.4 OBJECTIVES OF THE STUDY

- (a) To study the pattern of agricultural holdings of sample farmers from Madha Taluka of Solapur District.
- (b) To study the variations in agricultural productivity of the sample farmers.
- (c) To find out the correlation between the size of farm and agricultural productivity of the selected sample.

1.5 CHAPTER SCHEME

- 1) Introduction
- 2) Methodology of study
- 3) Profile of Study Area
- 4) Main Findings and Conclusions

1.6 CONCLUSION

The above review of literature reveals that there have been controversial issues resulting from various studies referred above. On this background, the present study was undertaken with a view to testing the above hypothesis.

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