

# Vanraj study

Business



HP mini tractor is a versatile technology with affordable price and attracting simple design. There are four market segments for the Vanraj 10 HP mini tractor: small (1-2 hectare of land) and marginal (less than 1 hectare) farmers, large farmers (more than 2 hectare), industries, and horticulture farmers.

Vanraj 10 HP mini tractor is the suitable option for the small and marginal farmers because these two segments alone comprises for 82% of the total land holdings that does not own tractors.

Average land holding in Indian agriculture has also declined from 2.3 hectare to 1.6 hectare coming easily in the range of small farmer's market segment so profit is expected to increase due sell of large number of Vanraj mini tractors. Because big tractors (30-50 HP) are not viable for small and marginal farmers which have average land holding size of 1.4 hectare and 0.4 hectare. Marginal and small farmers are large in numbers and farm mechanization in these segments is extremely low as these farmers heavily depended on bullocks for tilling and other agriculture operations.

Vanraj 10 HP mini tractor, with few modifications can easily be used material handling operations in industries. Area under horticulture is increasing especially in Gujrat and Maharashtra among four states Gujrat, Maharashtra, Uttar Pradesh, Madhya Pradesh which is responsible for 70% of total area under fruits and 40% of total area under vegetables respectively. (Annexure 1) Advantage of Vanraj mini tractor over big tractor:- \* Affordable price.

\* While the lifespan of Vanraj is equivalent to that of bigger tractors (8-9 years), Vanraj can perform all the functions of a big tractor at lower costs. Vanraj consumes only 1.5 litres of diesel per hour, whereas the big tractors consume 4 litres of diesel per hour. \* Simple design helps in easy repair and maintenance. \* Smaller/Adjustable wheel base and turning radius offer better manoeuvrability and control in farming operations.

\* Three wheel convertible feature. \* Tested Power Take-Off feature enables alternate use of a tractor's engine as a power generator. \* It is also vibration free which reduces the chances of misalignment of components. Is Vanraj a viable product?

The major competitors of Vanraj (targeting the small and marginal market segments) would be: \* Bullocks: The total expenditure incurred on pair of bullocks is Rs. 210,000. They would also need to be taken care of during off season when they are not productive.

Also, the productivity and quality of work achieved through Vanraj would be much higher as compared to bullocks. \* Though Vanraj was costlier but it provided better features like PTO, variable power take-off speed and a three wheel convertible.

Also some companies imported parts from China and assembled in India which did not work in the hotter Indian environment. \* While 82% of land was held by small and marginal farmers, they did not own a tractor. In the four states which the company wanted to target the percentage of large and marginal farmers were : Gujarat: 55% Madhya Pradesh: 64% Maharashtra: 69.8% Uttar Pradesh: 90% (Annexure 2) Hence the small and marginal

<https://assignbuster.com/vanraj-study/>

farmers formed a major chunk of the population with operational holdings and thus a very attractive market segment for Vanraj.

Nearly 90% of tractors were sold on credit which led to a number of bad debt scenarios. With the comparatively cheaper cost of Vanraj, small and marginal farmers would be encouraged to take loans and break even much faster as compared to larger tractors. The major players (top 5) in the tractor business do not have much interest in the "less than 20 HP" tractor primarily targeted at the small and marginal farmers. The less than 20 HP tractor market is unorganized and the existing competition is from small players such as Field Marshal, Trishul and Captain.

Since the growth rate is negative in the <20 HP tractor market segment, limited number of players intend to enter the segment. This would present a bright prospect for mini tractors like Vanraj.

The prime substitute for Vanraj tractors would be the bullocks in the small and marginal farmer's market. The disadvantage that the farmers will face with bullocks is the larger number of man-hours required and the tending required by a person throughout the year.