Farmer’s Opinion on Performance of Agricultural Tractors

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Abstract

Consumers make purchase decisions in each and every aspect of their life. Thus studying consumer behaviour becomes more vital. All marketing decisions & activities are based on assumptions about consumer behavior. The following objectives were framed for the paper, to study the factors influencing the purchase of agricultural tractors and to evaluate the most important factors like brand name, subsidy, horsepower, maintenance etc considered for the purchase of agricultural tractors. The study was carried out in Sivaganga district of Tamil Nadu state. Descriptive research design has been used in this study. The researcher has used both primary and secondary data for his research. The researcher has collected primary data from the tractor owners who had bought their tractor for service to the dealer point during the study period in Sivaganga district. Factor analysis was used to find out the most influencing factors considered by the respondents while making the purchase decision of tractor. It is found as per the ranking given by the respondents subsidy is ranked first and followed by sources consulted, horse power, after sales service, price and brand name respectively are considered for purchase of tractors.

Key Words: Agricultural Equipments, Tractors, Consumer Behavior, Factor Analysis, Branding, Marketing and Post Purchase Behaviour etc.

INTRODUCTION:

Consumers make purchase decisions in each and every aspect of their life. Thus studying consumer behaviour becomes more vital. All marketing decisions & activities are based on assumptions about consumer behavior.

Consumer behaviour deals with the behaviour that consumer displays in the consumption of goods right from purchasing, using, evaluating & disposing them. In other way, it deals with what they buy, how often they use it when they by it, why they buy it where they buy and how they evaluate it after purchase. Understanding the consumer purchase process and the post purchase opinion are critical to a marketer so as to design the marketing activities effectively.

Each step in the consumer decision making process is highly influenced by both internal and external factors. The internal factors include the individual's own motivation personality, perception, learning attitude and his own past experience in addition to the internal influencing factors, the external factors like the company's marketing efforts, ideas/opinions of friends, relations, family members and reference group members also have profound impact on the purchase decision of individuals.
CONSUMER BEHAVIOUR

The study of consumer is the study of how individuals make decisions to spend their available resources (time, money, effort) on consumption-related items. It includes the study of what they buy, why they buy it, when they buy it, where they buy it and how often they use it, how they evaluate after the purchase and the impact of such evaluations on future purchases and how they dispose of it. Consumer behaviour is concerned with the study of factors that influence people’s behaviour in a buying situation. Marketers can make better marketing decisions only when they know why and how individuals make their consumption decisions.

BUYING DECISION PROCESS

Consumers engage in a decision process to deal with the marketing environment and make purchases. The consumer goes through a series of logical stages to arrive at a decision when he faces a problem that could be resolved through a purchase. A typical buying process consists of the following five stages:

PROBLEM RECOGNITION

The buying process starts where the buyer recognizes a problem or need. The need may be triggered by internal or external stimuli. Marketers need to identify the circumstances that trigger a particular need.

INFORMATION SEARCH

An aroused consumer will be inclined to search for more information. Consumer information sources fall into four groups: Personal Sources: Family, friends, neighbours, acquaintances. Commercial Sources: Advertising, salespersons, dealers, packaging, displays. Public Sources: Mass media, Consumer-rating organization. Experimental Sources: Handling, Examining, using the product.

EVALUATION OF ALTERNATIVES

There is no single evaluation process used by all consumers or by one consumer in all buying situations.

PURCHASE DECISION

In executing a purchase intention, the consumer may make up to five purchase subdecisions: a brand decision, vendor decision, quantity decision, timing decision and payment method decision.

POST PURCHASE BEHAVIOUR

After purchasing the product the consumer will experience some level of satisfaction or dissatisfaction. The marketer’s job does not end when the product is bought. Marketers must monitor post purchase satisfaction, post purchase actions and post purchase product uses too. This will help them to understand the various purposes for which the product is used by consumers and also can reveal any difficulty faced by the consumers while using the product. The study on post purchase behavior of consumer will lead to a new idea, new features that can be added to the existing product.
OBJECTIVES OF THE STUDY

The following objectives were framed for the paper:

✓ To study the opinion among farmers with regard to the tractor’s performance.
✓ To evaluate the sources considered by the farmers to receive required information about tractors.

LIMITATIONS OF THE STUDY

Like any other social research, this research also has the following inherent limitations:

1. This study is restricted to Sivaganga district only.
2. This study is confined only to the agricultural tractor owners alone. They may not be generalized to other type of tractor consumers.

RESEARCH METHODOLOGY

RESEARCH DESIGN

Descriptive research design has been used in this study. The objective of a descriptive study is to answer the 'who, what, where and how' of the subject under investigation.

TYPE OF DATA COLLECTED

The researcher has used both primary and secondary data for his research. The researcher has collected primary data from the tractor owners who had brought their tractor for service to the dealer point during the study period in Sivaganga district.

METHODS OF DATA COLLECTION

For the descriptive type of researches, the best-suited research approach is survey method. The researcher has used interview schedule for the purpose of collecting primary data from the farm tractor owners for the study.

SAMPLING UNIT

The researcher has chosen the tractor consumers belonging to sivaganga district as the sample unit.

SAMPLE SIZE

The sample size for the study is determined as 90.

SAMPLE METHODOLOGY:

The sampling method used by the researcher in this study is non-probability sampling and the method used is convenient sampling method. This method has been chosen because the respondents belong to farming community and they should be willing to spend some time to collect data.

ANALYSIS AND INTERPRETATION:

Kruskal Wallis Test was carried between Acres of land Owned and Opinion about the factors relating to the tractor’s overall performance

Ho: There exist no Significant difference between the size of land hold by the Respondents (acres of land owned) and their Opinion about the factors relating to tractor’s overall Performance
Table 1

<table>
<thead>
<tr>
<th>Factors</th>
<th>Horse power</th>
<th>Mileage</th>
<th>Service backing</th>
<th>Promotional offers</th>
<th>Loan Availability</th>
<th>Brand's reputation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>39.734</td>
<td>36.067</td>
<td>2.768</td>
<td>9.004</td>
<td>53.855</td>
<td>2.381</td>
</tr>
<tr>
<td>df</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Asymp. Sig. (P value)</td>
<td>.000</td>
<td>.000</td>
<td>.429</td>
<td>.029</td>
<td>.000</td>
<td>.497</td>
</tr>
</tbody>
</table>

Statistical Inference

<table>
<thead>
<tr>
<th>Horse power</th>
<th>Mileage</th>
<th>Service backing</th>
<th>Promotional offers</th>
<th>Loan Availability</th>
<th>Brand's reputation</th>
</tr>
</thead>
<tbody>
<tr>
<td>P&lt;0.05</td>
<td>P&lt;0.05</td>
<td>P&gt;0.05</td>
<td>P&lt;0.05</td>
<td>P&lt;0.05</td>
<td>P&gt;0.05</td>
</tr>
<tr>
<td>Significant</td>
<td>Significant</td>
<td>Not Significant</td>
<td>Significant</td>
<td>Significant</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

Source: Primary Data

i) Horse Power

It is known from the above table that there exists significant difference in the opinion regarding the size of land held by the respondents (acres of land owned) and their opinion about Horse power. Hence it is inferred that the respondents' opinion differs based on the acres of land owned (ie). The opinion differs from small and large farmers.

ii) Mileage

It is known from the above table that there exists significant difference in the opinion regarding the size of land held by the respondents (acres of land owned) and their opinion about Mileage. Hence it is inferred that the respondents' opinion differs based on the acres of land owned (ie). The opinion differs from small and large farmers.

iii) Service backing

It is known from the above table that there exists no significant difference in the opinion regarding the size of land held by the respondents (acres of land owned) and their opinion about Service backing. Hence it is inferred that the respondents' opinion are same irrespective of the acres of land owned (ie). The opinion is same among all category of farmers (ie from small and large farmers).

iv) Promotional offers

It is known from the above table that there exists significant difference in the opinion regarding the size of land held by the respondents (acres of land owned) and their opinion about Promotional offers. Hence it is inferred that the respondents' opinion differs based on the acres of land owned (ie). The opinion differs from small and large farmers.

v) Loan Availability

It is known from the above table that there exists significant difference in the opinion...
regarding the size of land hold by the Respondents (acres of land owned) and their opinion about Loan Availability. Hence it is inferred that the respondents' opinion differs based on the acres of land owned (ie). The opinion differs from small and large farmers.

d) Brand's reputation

It is known from the above table that there exists no significant difference in the opinion regarding the size of land hold by the Respondents (acres of land owned) and their opinion about Brand's reputation. Hence it is inferred that the respondents' opinion are same irrespective of the acres of land owned (ie). The opinion is same among all category of farmers (ie from small and large farmers).

Table 2

<table>
<thead>
<tr>
<th>Factors</th>
<th>Easy repair ability</th>
<th>Availability of spares</th>
<th>Cost of spares</th>
<th>Engine</th>
<th>Braking system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>5.747</td>
<td>.447</td>
<td>37.581</td>
<td>.706</td>
<td>4.426</td>
</tr>
<tr>
<td>df</td>
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<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Asymp. Sig. (P value)</td>
<td>.125</td>
<td>.930</td>
<td>.000</td>
<td>.872</td>
<td>.219</td>
</tr>
</tbody>
</table>

Statistical Inference

<table>
<thead>
<tr>
<th>Factors</th>
<th>Easy repair ability</th>
<th>Availability of spares</th>
<th>Cost of spares</th>
<th>Engine</th>
<th>Braking system</th>
</tr>
</thead>
<tbody>
<tr>
<td>P&gt;0.05 Not Significant Accept Ho</td>
<td>P&gt;0.05 Not Significant Accept Ho</td>
<td>P&lt;0.05 Significant Reject Ho</td>
<td>P&gt;0.05 Not Significant Accept Ho</td>
<td>P&gt;0.05 Not Significant Accept Ho</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Data

d) Easy repair ability

It is known from the above table that there exists no significant difference in the opinion regarding the size of land held by the Respondents (acres of land owned) and their opinion about Easy repair ability. Hence it is inferred that the respondents’ opinion are same irrespective of the acres of land owned (ie). The opinion is same among all category of farmers (ie from small and large farmers).

d) Availability of spares

It is known from the above table that there exists no significant difference in the opinion regarding the size of land held by the Respondents (acres of land owned) and their opinion about Availability of spares. Hence it is inferred that the respondents’ opinion are same irrespective of the acres of land owned (ie). The opinion is same among all category of farmers (ie from small and large farmers).

d) Cost of spares

It is known from the above table that there exists significant difference in the opinion regarding the size of land hold by the Respondents (acres of land owned) and their opinion about Cost of spares. Hence it is inferred that the respondents' opinion differs based on the
acres of land owned (ie). The opinion differs from small and large farmers.

**x) Engine**

It is known from the above table that there exists no significant difference in the opinion regarding the size of land held by the Respondents (acres of land owned) and their opinion about Engine. Hence it is inferred that the respondents’ opinion are same irrespective of the acres of land owned (ie). The opinion is same among all category of farmers (ie from small and large farmers).

**xi) Braking system**

It is known from the above table that there exists no significant difference in the opinion regarding the size of land held by the Respondents (acres of land owned) and their opinion about Braking system. Hence it is inferred that the respondents’ opinion are same irrespective of the acres of land owned (ie). The opinion is same among all category of farmers (ie from small and large farmers).

**Table 3**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Dealer's reputation</th>
<th>Reference by friends</th>
<th>Resale Value</th>
<th>Look of the tractor</th>
<th>Enhanced features</th>
<th>Mechanic advice</th>
<th>Performance with regards to agricultural operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>1.608</td>
<td>1.906</td>
<td>10.567</td>
<td>25.006</td>
<td>3.303</td>
<td>2.449</td>
<td>3.456</td>
</tr>
<tr>
<td>df</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Asymp. Sig (P value)</td>
<td>.658</td>
<td>.592</td>
<td>.014</td>
<td>.000</td>
<td>.347</td>
<td>.485</td>
<td>.326</td>
</tr>
<tr>
<td>Statistical Inference</td>
<td>P&gt;0.05 Not Significant Accept Ho</td>
<td>P&gt;0.05 Not Significant Accept Ho</td>
<td>P&lt;0.05 Significant Reject Ho</td>
<td>P&lt;0.05 Significant Reject Ho</td>
<td>P&gt;0.05 Not Significant Accept Ho</td>
<td>P&gt;0.05 Not Significant Accept Ho</td>
<td>P&gt;0.05 Not Significant Accept Ho</td>
</tr>
</tbody>
</table>

Source: Primary Data

**Xii) Dealer’s reputation**

It is known from the above table that there exists no significant difference in the opinion regarding the size of land held by the Respondents (acres of land owned) and their opinion about Dealer's reputation. Hence it is inferred that the respondents’ opinion are same irrespective of the acres of land owned (ie). The opinion is same among all category of farmers (ie from small and large farmers).
xiii) References by friends

It is known from the above table that there exists no significant difference in the opinion regarding the size of land hold by the Respondents (acres of land owned) and their opinion about References by friends. Hence it is inferred that the respondents opinion are same irrespective of the acres of land owned (ie). The opinion is same among all category of farmers (ie from small and large farmers).

xiv) Resale Value

It is known from the above table that there exists significant difference in the opinion regarding the size of land hold by the Respondents (acres of land owned) and their opinion about Resale Value. Hence it is inferred that the respondents opinion differs based on the acres of land owned (ie). The opinion differs from small and large farmers.

xv) Look of the tractor

It is known from the above table that there exists significant difference in the opinion regarding the size of land hold by the Respondents (acres of land owned) and their opinion about Look of the tractor. Hence it is inferred that the respondents opinion differs based on the acres of land owned (ie). The opinion differs from small and large farmers.

xvi) Enhanced features

It is known from the above table that there exists no significant difference in the opinion regarding the size of land hold by the Respondents (acres of land owned) and their opinion about Enhanced features. Hence it is inferred that the respondents opinion are same irrespective of the acres of land owned (ie). The opinion is same among all category of farmers (ie from small and large farmers).

xvii) Mechanic advice

It is known from the above table that there exists no significant difference in the opinion regarding the size of land hold by the Respondents (acres of land owned) and their opinion about Mechanic advice. Hence it is inferred that the respondents opinion are same irrespective of the acres of land owned (ie). The opinion is same among all category of farmers (ie from small and large farmers).

xviii) Performance with regards to agricultural operation

It is known from the above table that there exists no significant difference in the opinion regarding the size of land hold by the Respondents (acres of land owned) and their opinion about Performance with regards to agricultural operation. Hence, it is inferred that the respondents opinion are same irrespective of the acres of land owned (ie) the opinion is same among all category of farmers (ie from small and large farmers).

Ranking of opinion about various factors relating to the tractor’s overall performance

Table: 4

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mean Rank</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horse power</td>
<td>9.99</td>
<td>6</td>
</tr>
<tr>
<td>Mileage</td>
<td>8.36</td>
<td>15</td>
</tr>
<tr>
<td>Service backing</td>
<td>10.41</td>
<td>4</td>
</tr>
<tr>
<td>Promotional offers</td>
<td>9.72</td>
<td>10</td>
</tr>
<tr>
<td>Loan Availability</td>
<td>11.64</td>
<td>1</td>
</tr>
</tbody>
</table>
Branding's reputation | 7.22 | 18
Dealer's reputation | 7.70 | 17
References by friends | 10.67 | 2
Resale Value | 10.17 | 5
Look of the tractor | 9.84 | 8
Enhanced features | 9.79 | 9
Mechanic advice | 9.94 | 7
Performance with regards to agricultural operation | 9.12 | 13
Easy repair ability | 8.87 | 14
Availability of spares | 9.63 | 11
Cost of spares | 10.53 | 3
Engine | 9.53 | 12
Braking system | 7.86 | 16

Source: Primary Data

**Inference:**

From the opinion given by the consumers with regard to their tractor’s overall performance the loan availability is preferred first rank followed by references given by friends, cost of spares, service backing, resale value, and horse power etc. it can also inferred that the technical details of tractor and the manufacture are given low ranks such as engine, braking system, brand and dealers reputation etc. And further mechanic advice and look of the tractor are given middle ranks by the consumers.

**Cross tabulation was carried between the horse power of the tractor and the sources through which information was received about tractor**

Ho: There exists no significant difference between the horse power of the tractor and sources through which information was received about tractor

**Table: 5**

<table>
<thead>
<tr>
<th>The horse power</th>
<th>sources through which information received about tractor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Advertisement.</td>
<td>Trade shows/Farm meet</td>
</tr>
<tr>
<td>35 hp</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>45 hp</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: Primary Data
Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>3.407(a)</td>
<td>5</td>
<td>.637</td>
</tr>
</tbody>
</table>

P>0.05
Not Significant
Accept Ho

The above table shows that there exists no significant difference between the horse power and sources through which information received about tractor

CONCLUSION

The research work has given lot of inputs to the researcher with regard to consumer behaviour and the opinion on the performance of tractors and the preferred usage of tractors by the farmers. The researcher has tried his level best to describe the facts that are prevailing in the market. The research output may help the manufacturer, and dealers of tractors an insight about the consumer’s perception and it will further help them in promoting their product in a more effective way.

REFERENCES