Market Assessment of Commercial Petroleum Tankers with respect to Ashok Leyland in Chennai Region

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Abstract

This project aims at assessing the Chennai market of commercial petroleum tankers in the view of ASHOK LEYLAND LIMITED, as petroleum transport sector is witnessing a major turnaround in all angles.

The key drivers which influence the customers to purchase this commercial tankers and know the satisfaction levels of ASHOK LEYLAND and TATA vehicle owners have been found out through which the company can make a comparison and try to update their weak links and thus provide better service.

This assessment also tries to analyze the threat from the substitutes i.e., railways and pipelines, the latest trends which are to happen in the market, the demand factors, the profitability of the customer which is absolutely necessary in the view point of a company and also any untapped markets which would be profitable to the company.

In a gist, it gives a view of how the market is now and would be in the future.

Introduction

This project is based on assessing the market of commercial petroleum tankers in the view of ASHOK LEYLAND LIMITED in Chennai. ASHOK LEYLAND LIMITED is one of the leading commercial vehicle manufacturers in India with a market share of almost 24%.

This petroleum transport is witnessing a major turnaround. Demand is increasing on one side for the usage of fuels and at the same time there is also tremendous competition to the road transport from substitutes like railways which is reducing its freight rates to match the road rates. Even pipelines have been erected by the oil companies which would reduce petroleum transport by road.

Crude oil is brought by sea to the Chennai port from where they are taken by pipelines to CPCL plant in Manali. They are refined and sent to the oil marketing companies through pipelines. The three oil companies IOC, BP and HP are located in the Korrukupet, Tondiarpet region within a radius of three kilometers.

From here they are transported by road or railways. For the road transport the three oil companies jointly give out tenders once in two years in the month of October. The rates are now Rs 600 for transport of 12000 litres of fuel within Chennai and the outstation rates are fixed at 85 paisa/ Km/ KL.

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There are totally 700-800 commercial tankers in this region doing the petroleum transport for the three oil companies. Here ASHOK LEYLAND has a major share of 95% whereas its main competitor has a share of only 5%. The market is also going to be penetrated by new commercial manufacturers like MAN with Force motors, Mercedes Benz, Volvo and Hyundai.

The brand loyalty is very high for ASHOK LEYLAND, so it is very important to identify the key drivers which influence the customers to purchase this commercial tankers. It is also necessary to know the satisfaction levels of ASHOK LEYLAND and TATA vehicle owners which would help the company make a comparison and try to update their weak links and thus provide better service.

This assessment also tries to analyze the threat from the substitutes i.e., railways and pipelines, and to make the company keep itself updated on the latest trends which are to happen in the market. The company also would be able to know the demand factors and the profitability of the customer which is absolutely necessary in the view point of a company.

This project gives a complete assessment of the market in all angles which would make the company take effective decisions and keep itself updated about the latest market scenario.

Objectives

Primary objectives

The primary objectives were to identify key drivers which influence the customer to purchase commercial tankers and prioritizing them according to the importance of the customer. Another primary objective was to determine the satisfaction levels of attributes for commercial tankers among the fleet operators. The main part was to do a customer profitability analysis and finding out the break even point for these fleet operators per month.

Secondary objectives

The secondary objectives were to analyze the competition from railways and pipelines, to identify the future trends for petroleum tankers, to asses the future potential of sales in this segment and the factors which influence the demand for the same. Another objective was to segment the market which would help in its in-depth understanding and also meet the demands of any specific segment if they are different from others. This is called the fashionize strategy which repeatedly segments the market to identify potential niches.

Research Methodology

The study adopted was descriptive study and based purely on data collected by questionnaires from the fleet owners. The questionnaire was filled by interview techniques. The population consisted of 700-800 vehicles carrying petrol, diesel and also aviation turbine fuel. These vehicles were owned by 150-175 fleet owners which was the population size. The samples were collected from 70 fleet owners, 63 Ashok Leyland owners and 7 Tata owners. They were also divided between the three oil companies- 23 for IOC, 23 for BP and 24 for HP. The sampling technique used was non-probability convenient sampling. The data analysis was done

completely through SPSS and the statistical tools used were frequency and percentage analysis, Friedman test and weighted average method.

Analysis and Interpretation

Key drivers which influence customers when purchasing commercial tankers

There were 11 factors considered as the key drivers and the fleet owners were asked to rate them on a scale of very important to least important. Giving points of 5 to 1 for the scale of very important to least important ,we can prioritize the key drivers according to the importance of the customer. The table 1 shows how the various key drivers were rated and table 2 shows their ranking for Ashok Leyland tanker owners. This was similarly done for Tata owners.

Table -1 : Rating of Key drivers by owners of Ashok Leyland when purchasing a commercial tanker.

	Rating					
Criteria						
	Very importa	Important	Neutral	Not imp	Least imp	Total
Cost	46	4	13			63
%	73%	6.30%	20.60%			100%
Mileage	53	10				63
%	84.10%	15.90%				100%
Engine power	40	23				63
%	63.50%	36.50%				100%
Pick up	1	56	6			63
%	1.60%	88.90%	9.50%			100%
Load carrying ability	35	28				63
%	55.60%	44.40%				100%
Service support	14	48	1			63
%	22.20%	76.20%	1.60%			100%
Parts availability	43	20				63
%	68.30%	31.70%				100%
Speed	1	42	20			63
%	1.60%	66.70%	31.70%			100%
Steering ease	3	58	2			63
%	4.80%	92.10%	3.20%			100%
Maneuverability		42	21			63
%		66.70%	33.30%			100%
Brand of the vehicle	5	34	24			63
%	7.90%	54%	38.10%			100%

Table 2 : Ranking of Key drivers by owners of Ashok Leyland when purchasing a commercial tanker

Rank	Attribute	Points\315
1	Mileage	305
2	Parts availability	295
3	Engine power	292
4	Load carrying ability	287
5	Cost of the vehicle	285
6	Service support	265
7	Steering ease	253
8	Pick up	247
9	Speed	233
9	Brand of the vehicle	233
11	Maneuverability	231

Findings

The owners of Ashok Leyland vehicles give the highest importance to mileage, parts availability and engine power and the lowest importance to maneuverability, brand of the vehicle, speed.

The owners of Tata give the highest importance to load carrying ability, mileage and engine power, parts availability and the lowest importance to maneuverability, brand of the vehicle, steering ease.

Satisfaction levels of attributes for commercial tankers among the fleet operators

There were totally 12 attributes considered for the satisfaction level of the fleet owners. These were then rated by the fleet owners on a scale of highly satisfied to highly dissatisfied. Giving points of 5 to 1 for the scale of highly satisfied to highly dissatisfied, we can prioritize the attributes according to the customers. The table 3 shows how the various attributes were rated and table 4 shows their ranking for Ashok Leyland tanker owners. This was also done for the owners of Tata.

Table-3 : Rating of attributes for their satisfaction by owners of Ashok Leyland

	Satisfaction level					
Attributes						
	AS	S	N	NS	ADS	TOTAL
Cost of the vehicle	5	23	31	4		63
%	7.90%	36.50%	49.20%	6.30%		100%
Mileage	33	22	8			63
%	52.40%	34.90%	12.70%			100%
Engine power	17	42	3	1		63
%	27%	66.70%	4.80%	1.60%		100%
Pick up		61	2			63
%		96.80%	3.20%			100%
Load carrying ability	24	34	5			63
%	38.10%	54%	7.90%			100%
service support	11	41	9	2		63
%	17.50%	65.10%	14.30%	3.20%		100%
Parts availability	29	34				63
%	46%	54%				100%
Speed	17	46				63
%	27%	73%				100%
Steering ease	7	56				63
%	11.10%	88.90%				100%
Maneuverability	6	57				63
%	9.50%	90.50%				100%
Tyre performance		1	33	7	22	63
%		1.60%	52.40%	11.10%	34.90%	100%
Suspension	1	47	15			63
%	1.60%	74.60%	23.80%			100%
overall performance	18	41	4			63
%	28.60%	65.10%	6.30%			100%

Table - 4 : Ranking of attributes for their satisfaction by owners of Ashok Leyland

Rank	Attribute	Points\315
1	Parts availability	281
2	Mileage	277
3	Load carrying ability	271
4	Speed	269
5	Engine power	264
6	Steering ease	259
7	Maneuverability	258
8	Pick up	250
8	Service support	250
10	Suspension	238
11	Cost of the vehicle	218
12	Tyre performance	139

Findings

The owners of Ashok Leyland vehicles had the highest satisfaction with parts availability, mileage, load carrying ability and the lowest satisfaction with tyre performance, cost of the vehicle and suspension.

The owners of Tata vehicles had the highest satisfaction with speed, steering ease, load carrying ability and the lowest satisfaction with mileage, tyre performance and parts availability.

Customer profitability analysis

The costs incurred i.e., fixed and variable costs by the fleet operators who are owners of Ashok Leyland and Tata have been calculated and their profits have been found out per month. The number of breakeven trips or break even Kms have been calculated per month.

The need for the customer profitability analysis

The customer profitability analysis has been done to have an in-depth understanding of how the fleet operators have been performing. It also helps us to get to know all the costs incurred by the fleet operators before starting on this business, their fixed and variable costs per month and how profitable is this segment for them. This helps in deciding what type of product would help improve their profits and thus keeping their overall satisfaction level high.

This profits of the customer have to be calculated because the sales of future vehicles depend on the profits of the customer. If the fleet operators profits are high he would tend to buy more vehicles and lend it for contract with a view of increasing his profits. This has a direct influence on the sales of vehicles. Moreover the profits also have an influence on the overall satisfaction level. If the profits are low this tends to decrease the overall satisfaction level for the vehicle.

So it is important to make a customer profitability analysis and check out which are the major costs of fleet operators and if possible try to provide vehicles which would increase their profits and thus increase sales of commercial tankers.

Findings for the Customer Profitability Analysis

For Ashok Leyland vehicles doing the local travel, there was a loss of Rs 6400 per month for the 1611 & 1612 models and Rs 4000 for the 1613 model. The three models had a capacity of 12,000 litres and achieved breakeven after doing 80-95 trips. The Taurus model which had a capacity of 20000 litres had a marginal profit of Rs 7500. The breakeven was achieved after doing 53 trips.

For the vehicles doing the outstation travel there was a marginal profit from Rs 6600 to Rs 9900 for the 12,000 litre models i.e., 1611,1612 and 1612 models. They achieved breakeven after doing 4000-4500 Kms and for the 20,000 litre models the profits were more at Rs 33,000. The breakeven was achieved much earlier at 2800 Kms.

The Ashok Leyland vehicles were much better than Tata vehicles due to the better mileage offered by these vehicles. As fuel formed a major part of the total costs, the Tata vehicles had much low profitability than the Ashok Leyland vehicles.

The owners to increase on their profitability used kerosene as a fuel. They also resorted to pilferage during transport of fuel along the Poonthamalee highway near Chennai.

The tender rates were fixed two years back when the fuel rates were Rs 24/ litre and now the rates are almost Rs 35/ litre which are resulting in the low profitability for the fleet owners. The tender rates are to be revised during the month of October, 2005 after which the profitability would surely increase for the fleet owners.

Table 5 : showing the CPA for the AL models for local trips

Table 3.7.29FOR AL LOCAL	AL MODELS	1611	1612	1613	2214
INITIAL COSTS	CHASSIS COST	7,60,000	7,92,000	7,97,000	10,17,500
	BODY BUILDING COSTS	1,50,000	1,50,000	1,50,000	1,75,000
	FINANCE	90%	90%	90%	90%
	INITIAL COSTS	1,00,000	1,00,000	1,00,000	1,30,000
	FINANCE AMOUNT	8,20,000	8,47,800	8,52,300	10,73,250
	INTEREST RATE %		5%		
	LOAN PERIOD (MONTHS)		36		
	EMI	20,195	27083	27220	34285
VARIABLE COSTS					
	ROUTE COVERED	INSIDE CHENNAI			
	UP AND DOWN DISTANCE(KMS)		60		
	PAYLOAD CARRIED	12000LTRS	12000LTRS	12000LTRS	20000LTRS
	TIME TAKEN FOR TRAVEL (HOURS)		6		
	KMPL	5	5	5.5	4.5
	NO OF TRIPS PER MONTH		60		
	DIESEL CONSUME(LTRS)	12	12	10.9	13.3
	FUEL PRICE (Rs)		33		
	OIL COSTS (Rs)/MONTH	300	300	300	500
	FUEL COST PER TRIP (Rs)	400	400	360	440
	FUEL COSTS PER MONTH (Rs)	24000	24000	21600	26400
	TOTAL VARIABLE EXPENSES PER MONTH (Rs)	24300	24300	21900	26900
FIXED EXPENSES					
	TYRES	6600	6600	6600	10625
	MAINTENANCE	2500	2500	2500	3500
	ROAD TAX	900	900	900	1900
	PERMIT COSTS	875	875	875	1000
	INSURANCE	1600	1600	1600	2500
	DRIVER & CLEANER EXPENSES	5000	5000	5000	6000
	STAFF COSTS	300	300	300	300
	ADMINISTRATIVE EXPENSES	500	500	500	500
	MISCELLANEOUS COSTS	500	500	500	500
		18775	18775	18775	26825
TOTAL EXPENSES/MONTH		43,075	43,075	40,675	53,725
REVENUE					
	REVENUE/TRIP	612	612	612	1020
REVENUE PER MONTH		36,720	36,720	36,720	61,200
PROFITS PER MONTH(Rs)		-6,355	-6,355	-3,955	7,475
MINIMUM NO OF TRIPS TO REACH BREAKEVEN		85	85	80	53

Analyzing The Competition From Railways And Pipelines

Out of the total 70 fleet owners surveyed, 47% of them felt that the railways had a moderate effect on their business and 29% of them felt that the effect of railways was high on their business**.** For the threat from pipelines 31% of the 70 fleet owners surveyed felt that the pipelines would affect their business in a very high manner and 51% of the total 70 felt that pipelines would have a high effect on their business.

This showed that the pipelines and railways which are the substitutes for road transport are definitely eating into the share of road transport. Majority of the fleet owners when asked when the oil companies considered them over railways answered that when transportation costs were higher.

Future Trends For Petroleum Tankers

The trend is definitely moving towards heavy commercial vehicles with higher tonnage capacity and this was clearly shown in the survey taken. Out of the 70 fleet owners surveyed 76% felt that the new methods of transport like pipelines would take over and 24% felt that the future transport would be through heavy commercial vehicles with higher tonnage capacity.

Future Potential Of Sales In This Segment And The Factors Which Influence The Demand For The Same

Majority of the fleet operators i.e., 75% of the total surveyed believed that there would be only a moderate growth of potential in the petroleum road transport in this region. Almost 70% of the fleet operators felt that the number of present vehicles did not meet their current requirements. Out of the 70% of fleet operators who wanted to buy additional vehicles, 93% of them were going to buy between 1 to 3 vehicles. A substantial 21% fixed a certain time period for purchase that was mainly during the time of calling of contract which was during the month of October.

The owners of Ashok Leyland were highly brand loyal. An impressive 100% of them wanted to repeat their purchase of Ashok Leyland vehicles. Among the Tata owners 43% of them wanted to shift their brand of purchase. They wanted to buy Ashok Leyland vehicles during their next purchase.

Market Segmentation

The market was segmented into three major segments to identify any potential demands which are characteristic of this segments. The segments were divided based on the experience, the models of vehicles and on fleet owners doing transport for the three oil companies.

Interesting revelations emerged from segmenting the market. The experience segment was divided as the new comers (1 to 5), middle level experience (6 to 15) and the high experience (16 to 20 and above 20 years of experience) segment. The new comers gave importance to the cost of the vehicle, load carrying ability and mileage when purchasing a vehicle. The middle

level experience segment and the high experience segment both gave importance to mileage, engine power and parts availability when purchasing a vehicle.

In the other segmentations, there was not much differences in the key drivers when purchasing a vehicle, but there were differences in the satisfaction level of the attributes.

The segmentation definitely gives us an insight on how each customer is different and thus supplying vehicles with these attributes kept in mind would help in boosting sales and the satisfaction level of customers.

Conclusion

The research clearly showed the dominance of Ashok Leyland in this segment.

The vehicle sales in this segment depended on these important factors:-

- The profitability in this segment for fleet operators.
- Key drivers considered by customers when coming to purchase a vehicle.
- Growth in road transport potential .
- Understanding new trends and meeting them.
- Competition from railways and pipelines.
- Meeting the satisfaction level of customers.

As cited by the fleet operators there would be a moderate growth of transport in this region. The transport to other parts of Tamil Nadu and other states would decrease because of the oil companies using railways and pipelines as a mode of transport to these places. But this would be marginally compensated by the increase of petrol bunks within Chennai. All the three oil majors are increasing the number of petrol bunks rapidly. In the view of Ashok Leyland there is still high potential.

More number of vehicles would be required in Trichy and Madurai where pipelines from Chennai have been put. These vehicles would be needed to cater the local needs around these places.

Increasing number of vehicles are being purchased by petrol bunk owners to satisfy their own needs. This market is still untapped and considering the number of petrol bunks in Tamil-Nadu, which is also increasing day by day, the potential for sales are very high.

It is therefore necessary for the company to satisfy the existing markets by continuously monitoring the satisfaction levels, key drivers and at the same time move into untapped markets and capture them before the competitors enter the market.

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