

# To Study Commercial Vehicle and Customer Satisfaction

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**Abstract – Unlike personal or business cars, Commercial vehicles are mainly utilized for business purpose, When we travel across India we realize that even two wheelers are modified to carry the load. Best examples are 'Chhakada' which are used in Gujrat, converted from Rajdoot motor cycle. Three wheelers have their own limitations in terms of speed and load carrying capacity. These are very basic on safety and in terms of style statements. Exactly this chord was captured by Tata Motors while introducing ACE and world has experienced the change that was brought by ACE. Small truck of three wheeler to four wheel added to prestige of the owner. In India, there are two types of truck customers. One who owns it and driven by his driver while on the other hand owner himself is driver. First one is called as fleet owner, hence, needs of fleet owner and owner cum driver differs on many aspects, while essential requirements or basic requirements remains same. In this competitive world, sustaining market is art of doing business for any manufacturer, which is solely dependent on one of important aspect and that is 'Customers upon fuel prices which keep on fluctuating At the same time, freight charges are not getting updated. So fleet operators demand for fuel efficient trucks and they are ready to pay more for such trucks. Customer satisfaction lies in quick payback while doing business with less fatigue. Thus customer satisfaction becomes trade-off between various needs of the customers. Individual customers with one truck may have different need as he himself driving the truck. He may go for truck with various features. As operator do not drive truck and they appoint drivers, may overlook comfort aspect fleet. Even the truck which is satisfying all the requirements today may not satisfy in coming years as requirements keep on changing because of technology, Government regulations, and business demands. Their money need to get circulated fast to earn the profit. With larger perspective, society is also a customer. It get affected because of smoke and dust pollution, noise pollution. In many road accidents, citizens get killed who are not related to this logistics or transportation business. Manufacturers use the resources of the society and in return they should give back the products which are not harmful for the society and environment. For the subject study external direct customer is considered who invest in truck and who drive the truck to earn his daily bread and butter by doing business. Commercial Truck manufacturing is the business of selling businesses. Every owner in every application should get satisfied with truck he is purchasing. Manufacturer should identify the need of the customer and give option of a truck with specification matching to customer's needs.**

**Key World: Truck Brand, Resale Value, Driver Sensitive, KMPL, Price**

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## INTRODUCTION OF INDIAN AUTOMOBILE INDUSTRY:

Commercial vehicle Industry comprises of three wheelers small load carrying pick up vehicles, four wheeler cargo, Buses and Trucks. Manufacturers like Tata Motors, Ashok Leyland, Eicher Motors, Volvo, Man, Mahindra, Daimler India Commercial Vehicles (DICV), Bajaj, and Force Motors are involved in this industry in India. Many new manufacturers are joining the league. Indian Industry which was polarized, is becoming more and more competitive. Commercial Industry world over is an industry where Ups and Downs are inherent, it is heavily correlated with the performance of respective economy.

Commercial vehicles have been instrumental as one of the driver for Indian economy. Truck sale is one of the most important parameters of GDP. One truck gives employment to minimum four citizens- directly or indirectly. Basic business of commercial vehicle manufacturers is to provide business to the people. As bread and butter of the customer comes from the commercial vehicle business, he is solely dependent on the product for minimum 5 years from purchase of product. 2015 India CSI study reveals that seven out of ten highly-satisfied customers would definitely repurchase the same make.

The most important thing from customer's view is return on investment. Indian Customer is choosier while selecting particular brand of Truck. Indian CV Industry has two distinct characters to face, one is Customer and other is Consumer. Customer is who purchase truck, who may not drive the truck. If anybody has got two or more than two truck, Industry call such customers as fleet owner. They appoint drivers and cleaners for business purpose on regular pay role. Owner's decisions may get impacted due to the consumer's i.e. driver's opinion about particular commercial vehicle. The need, want and desire of customer and consumer may be different. But the decisions are taken by the owner from business point of view. He may not go for the demand of driver of air-conditioning or cruise control but he can go for fuel theft protection device. Or he can go for power steering option for fatigueless driving because of which driver can go for another trip. As traffic on road is too much and undisciplined driving is observed everywhere in India, owner is always worried to deliver goods in time to his customer. There is shortage of trained drivers in India and many times it becomes compulsion to listen to drivers. Education is a major factor responsible for accidents on Indian roads. Comfortable cabin, good driving experience, good road connectivity and infrastructure and safety have added up to the need for modern vehicles. Modern trucks can be called as value trucks which can give less payback period because of fast turnaround. Indian manufacturers can create or manufacture value trucks but its cost goes up so owners are reluctant to buy. Another reason is there is volatility in freight rates. High fuel prices affect revenue of the owner. The industry has attracted Foreign Direct Investment (FDI) worth US\$ 19.29 billion during the period April 2000 to June 2018, according to data released by Department of Industrial Policy and Promotion (DIPP). Other than automobile, spare part or component industry is also growing in India which is supporting commercial manufacturing. Low cost and skilled labor in India, making this business attractive for world players and consolidation, alliances are happening in this industry also. To avoid dependability on Middle East country, India is also planning for electric vehicles and giving some subsidy and incentives. This has started in cars and shortly expected in trucks also. This new scenario is likely to change and affect the Indian automobile industry. Government is planning infrastructure for the same and pilot project being planned on Mumbai Pune express way for chain of charging stations.

## HISTORY OF COMMERCIAL VEHICLES

Earlier in 1769, steam wagons were used in Europe for goods transportation for short hauls. At that time roads were not constructed for the same which limited the use. In 1895 Karl Benz designed and built the first truck in history using the internal combustion engine (Reference Wikipedia). After World War I, modifications happened in truck and actual

commercial use started. Ford and Renault started factories to make heavy trucks. The diesel engine appeared in production trucks in 1923. Automobile industry started in India in 1942. The Liberalization policy was started in 1991 in India and it helped Indian automobile industry. There were only 31 automobile companies in India before liberalization policy. After Liberalization 17 new entrants came in India. Indian automobile industry is 100 years junior to world Auto industry.

In India, Commercial vehicle industry is led by Tata Motors. Still there are very few companies at the top. Tata Motors – a market leader, followed by Ashok Leyland, Eicher Motors, Mahindra and Mahindra, Bharat Benz and Swaraj Mazda. Commercial vehicles include truck and buses both. Indian automobile industry is largest in the world as per production is concerned since 2015-16 and if two wheeler, passenger cars, buses are concerned including export. This rate will get maintained as many auto manufacturers are investing in industry which is attracting FDI. India is encouraging FDI in the automobile sector. It has taken major initiatives as- "Make in India" –under which Renault, Nissan, BYD, Benz are entering alone or with collaboration with Indian partner which will help small scale industry and employment. CNG fuel has become common in NCR and heavy taxes are imposed on Diesel vehicles. Similarly plan is being made for electric vehicles. This will help reduction in dependency on Middle East and foreign currency will get saved. Under the National Electric Mobility Mission 2020, encouragement is being given for the same.

The commercial vehicle business is cyclical and its growth is linked to the development of infrastructure. The Commercial Vehicle industry in India is split between the LCV, ICV, and MCV, HCV segments, based on gross vehicle weight. According to Industry norms, vehicles with GVW less than 7.5 tons are classified as LCVs. 7.5 ton to 14 ton vehicles are called as intermediate or ICV's.

Based on product portfolio and market share, major automobile companies in India who manufacture LCV and ICV are as below:

- 1) Tata Motors is a market leader as far as market share is concerned. Its Indian multinational company, founded in 1945 by J R D Tata at Mumbai. It has got manufacturing plants in Jamshedpur, Lucknow, Sanand, Pune and Dharwad. It is in the market with trucks carrying 500 kg to 50 tons. Its head office is located at Mumbai. Its multinational company. It has got largest market share in India in automobile products. In ILCV there are products like 407,709,909,1109,1412,1518 and new range of Ultra 814,912, 1518 models. 2) Ashok Leyland is a flagship company of Hinduja group, founded in 1948 at Chennai. It is exporting its products in many countries. It is largest commercial

manufacturing company in India. Has got presence in ICV, MCV and HCV. Recently they have entered in LCV with model called Partner and entered in SCV with model Dost. Guru and Boss are there new ICV products. They are known for strong, rigid trucks. Ashok Leyland (ALL) is the second-largest commercial vehicles manufacturer and good market share in Heavy trucks. Nissan Motor and ALL has joint venture. Partner, Guru, Boss are the latest LCV & ICV models of Ashok Leyland. 3) Mahindra and Mahindra (MandM) is a multinational company, founded in 1945. It is one of the major SCV player in Indian auto Industry-which has entered in heavy truck segment recently and already ICV's are being launched. MandM is a small player in the Indian LCV segment with product called Loadking and Jayo. They are bringing new range in ICV-Furio. Mahindra is a world market leader in tractor. It has stake in Reva Electric Car Company. 4) Eicher Motors (EML) - it founded in 1948 as a tractor company. It produces intermediate commercial vehicles and has joint venture with AB Volvo .The JV is a subsidiary of EML. Eicher Motors is located at Pithampur, Madhya Pradesh. It has an annual production capacity of 30,000 vehicles. EML is having 33% market share in the 7 ton-11 ton segment. Their trucks are having low curb weight so carry more payload. 10.59, 11.10, 10.75, 10.80, 10.90, 10.95 are their popular trucks. 5) Bharat Benz started its manufacturing in India in 2011. It is a new truck player in India which has got presence in intermediate truck segment with single digit market share. To have better connect with Indian customer, they have chosen name Bharat. Basically, they are using India as a manufacturing base and export vehicles in nearby countries. They have 914R, 1014R, 1214R 1414R ICV range. 6) SML Isuzu is popularly known as Swaraj Mazda. It started its operations in India in 1983 at Chandigarh. It is owned by Sumitomo Corporation and Punjab tractors jointly with collaboration with Isuzu & Mazda. It started in LCV & ICV. It is another small player as far as market share is concerned. Sartaj, Samrat, Supreme, Super are the truck names of SML Isuzu in LCV and ICV. SML Isuzu is also in manufacturing of tippers which are used in construction or quarry applications.

## RESEARCH METHODOLOGY

The customers gave ample time and gave true opinions as I was not representing any company or brand. The conclusion is drawn based on the extent of actual response received. Further this study is focused at only customer choices and their priorities from the set given. The focal point of the study is to find sequence of customer preferences. While study is related to ILCV truck range of 4 to 14 ton for 1) Tata Motors, 2) Ashok Leyland, 3) Eicher Motors, 4) Mahindra and Mahindra, and 5) Bharat Benz .Out of these companies some companies are having complete ILCV 4 to 14 ton portfolio but some are having only 9 to 14 ton segments and they do not have presence in 4 to 8 ton segments. To come on

common platform and have like to like comparison, common tonnage models are considered for comparison while data analysis, though study is done for full 4 to 14 ton complete range. Data collected through various sources reveal the exact nature of customer requirements and needs. All these tools, reports, analyses etc. helped to arrive at conclusion to be made to identify customer priorities in totality.

## OBJECTIVES OF RESEARCH STUDY:

1. To study and compare customer's feedback regarding Commercial Vehicle models ranging between 4 to 11 tons.
2. To Capture and evaluate vital customer satisfaction parameters w.r.t Commercial Vehicle from customer perspective for ILCV range 4 to 11 tons
3. To identify important critical parameters for New Commercial Vehicle Development to achieve highest Customer Satisfaction

## DATA ANALYSIS

The respondents were in the age group of 25 to 45 and male. Secondly, the fleet owners were in this transportation business for 10 to 15 years and drivers were having experience of minimum 5 years. Education of the drivers was from 8<sup>th</sup> standard to graduation and most of the fleet owners were of the same qualification as drivers but their next generation is graduate from universities which have formally learned business in school and now participating and supporting business. They have software's and good record keeping practices. The fleet owner who were handling business single handedly and on landline phone, now have manager and office staff with good office area and other infrastructure with facilities like Wi-Fi, Laptops, scanners, photo copy machines. Fleet owners keep inventory of consumable parts, tools. There are few associations who have their own mechanics, accountants to support the fleet owners. As fleet owners and drivers work on road across state, they have good communication, cooperation with others and support each other in emergency. Fleet owners are influenced by drivers. Drivers are opinion makers as they move across, see new models, discuss with other drivers and drive various models.

## FINDINGS

Although it is seen that on macro level all these variables are independent of one another, when we go to micro level, these factors are interdependent.

Fleet operators and truck drivers are complementary to each other in a transport business but when prompted and unprompted questions were asked, it was noted that some answers were common and some were different. Perspective of both towards was not exactly same.

Questions were related to brand, load carrying capacity, driving comfort, mileage, pick up, turning circle radius of the truck, after sales service, Price, Maintenance cost, appearance and styling, climbing ability, better warranty terms etc. Even customers gave feedback for which questions were not asked. Customers spelled requirement of low NVH, cab comfort, brake enhancement.

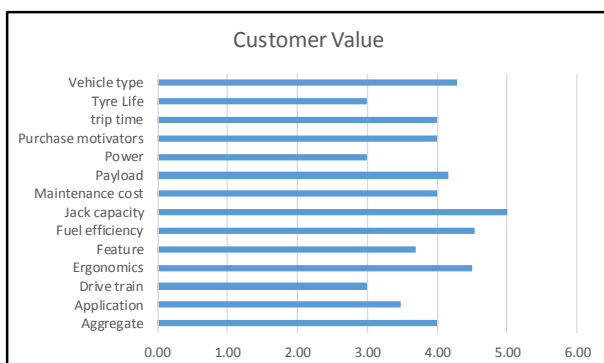
Below table shows glimpse of importance and rating for parameters for different trucks.

**Rating specific to truck Brand**

Owner sensitive	Truck Brands						5- top, 1- lowest
	H	E	EA	B	AB	U	Scale of importance
Price	3	2	4	3	5	1	4
KMPL	3	4	3	3	4	5	5
Payload	4	5	4	3	4	5	5
Tyre life	4	4	4	3	4	5	4
Veh/Aggr Warranty	5	3	3	3	3	5	2
Resale value	3	2	3	4	5	5	2
Overload capability	5	3	4	3	4	5	3
	<b>94</b>	<b>88</b>	<b>91</b>	<b>77</b>	<b>104</b>	<b>109</b>	
Driver sensitive							
NVH	2	3	2	4	4	5	5
Seats	3	3	1	3	4	5	5
Storage space	3	3	2	4	3	5	3
Cab Comfort	2	3	2	3	4	5	3
Pedal effort	3	3	3	4	4	5	4
Steering effort & adjust	3	4	3	4	3	5	4
Brake performance	4	4	4	4	4	4	4
	<b>80</b>	<b>92</b>	<b>67</b>	<b>104</b>	<b>105</b>	<b>136</b>	

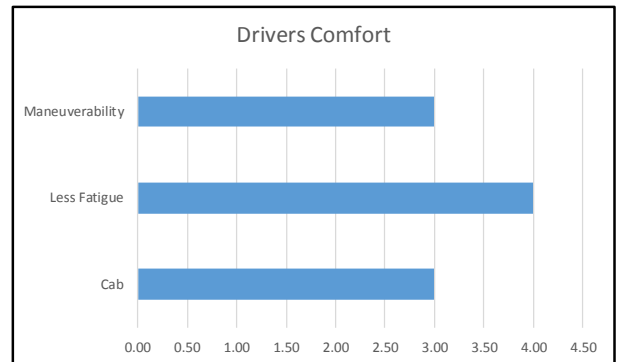
Finding is owner are very specific about KMPL as it affect daily income, then next important aspect is payload capacity in same segment so that he can carry more load per trip and next important is tyre life as they cost more. Driver need quite cabin, comfortable seats and effortless operations. Manufacturer need to consider top 4 to 5 parameters from both the boxes and make unique new truck as shown hypothetically but its cost will be more and separate thought can be given for the same. Identifying parameters for a particular application and setting priority in that and managing at justified cost is possible and though trade off, this is the only way to customer satisfaction.

**Data analysis of Customer value (factors affecting customer satisfaction :)**



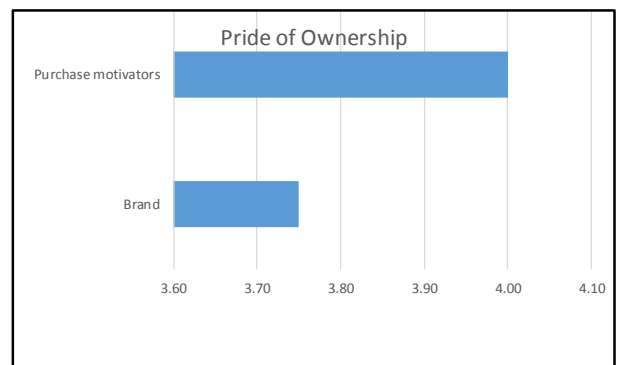
Overall analysis of customer value represents that customer is more focused and worried about capacity of Jack, this may be because of his past experience. Jack capacity is crucial as all the manufacturers give it as per capacity which is mentioned in the ARAI certificate but in case of overload it may not work while changing the tyre or puncture repairing. Ergonomics, fuel efficiency which impact him in terms of revenue.

**Data analysis of Driver Comfort**



While considering drivers comfort, customers are focused at fatigue. Maximum time driver spend time in cab, so better ergonomics give me a comfort otherwise he may undergo knee pain, shoulder pain. If he need to drive in city, many times he need to operate clutch, brake and much effort is required. Maneuverability is ease of handling which depends upon the power steering and lesser wheel base of the vehicle. Power steering became a need from want and help in traffic and on bad roads to avoid potholes.

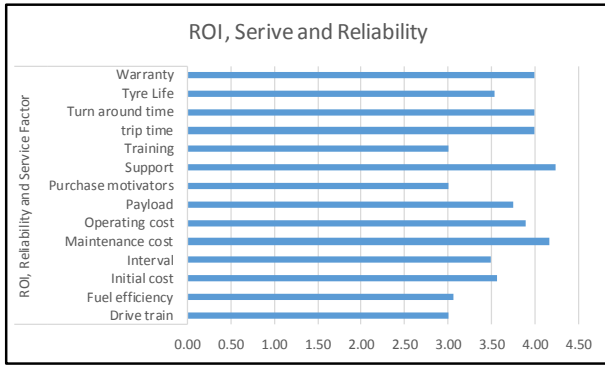
**Data analysis of Pride of ownership**



Customers get attracted towards various incentive schemes while purchasing trucks. Many times some features are offered like mobile charger, free floor mat, additional service etc. They are attached with brands but whatever free is there, it's always accepted. Fleet owners are often loyal to brands and dealerships as they get loyalty points and the relationship helps in resolving issues, if any.

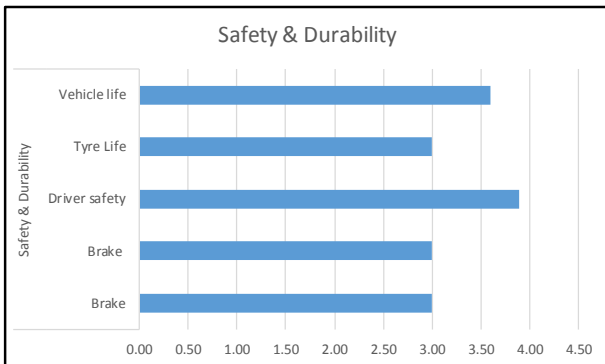


**Data analysis of ROI, Service and Reliability**



Service support, maintenance and warranty costs are important factors while considering return on investment. Secondly, these are recurring operations and lot of time get invested in this. So customer prefer reliable brand whose service is better and spares are available easily anywhere in the country. Tyres are very costly and they cost approximately 10% of truck cost so customer prefer and demand certain tyre brands while taking truck delivery.

**Data analysis of Safety and Durability**



Driver's safety is main concern as vehicle parts can be replaced but loss of human life or injury does not recover. In severe traffic and poor road condition, brake application and braking effort play a great role. Many accidents happen because of braking. Ghat region and sharp turns demand efficient brake and maintenance. Secondly, it becomes legal issue and business time get wasted. In overload condition braking at right distance is very important.

**CONCLUSION**

This study and analysis would definitely help to understand the focus area as per as the customer requirements and satisfaction are concerned. With this analysis, resources will not go waste on things which are non-value adding from customer point of view. Time will get saved and early launch will be possible. Unless one know the exact needs of the customer and understand the voice of customer, it is very challenging to give appropriate product to customer and satisfy him. Need, Want and Desire need to be identified and worked upon. This is

applicable for all products but it's more prudent in ILCV 4 ton to 14 ton range because customer behavior is different for LCV and ICV. In LCV, mostly owner is driver and in ICV, owner does not drive and he appoint driver. Requirement of both the customers are different so solution should be different and accordingly product development should happen. It is very important to know the feedback from the customer because he is actually using that product on daily basis and he can express pain points and gain points. Many time manufactures make a product which is possible to offer and they think it is best. But it may not satisfy the customer if value is not perceived. Every feature may not be required to customer and he might be paying for it. It may happen that customer may give very good idea which can create business opportunity for manufacturer. Some feedback may be suggestion to improve on some technical part which might have got neglected while testing. Feedback is important for current as well as future products.

Customer needs can be understood easily but identifying wants is always challenging. List of wants goes longer. Evaluation of those wants and desires need to be done. If you tell ,AC will cost 20000/-Rs more then he may say no to AC. Everything can be given but cost of the product will go up. Customer may say yes if you are giving more power and because of which customer will be able to make more trips and earn more. For that even if cost is going up by 20000/-Rs and he get convinced, he would like to have powerful truck, so it is very crucial to identify essential & vital list out of laundry list..

Customer takes commercial vehicle for doing business and so its highest priority is to earn money. Customers set target to become loan free, pay the installments and save for daily bread and butter and wellbeing of his family. So his priority is a truck which fits best for application in which he is working at minimum input cost and gives maximum value in terms trouble free operation, maximum average, ease of handling and comfort. Trouble free operation means high level of reliability of its parts, components, aggregates at minimum maintenance cost. Good customer support team and service center network gives confidence to customer. Truck customer want to satisfy his customer who are waiting for delivery in time. His customer is not bother in which truck goods are delivered. His customer want delivery in time and at minimum cost. Freight rates does not change frequently but diesel rates do. If earning need to keep constant, customer need truck at low cost so that he will need to pay less EMI per month. So it becomes manufacturer's responsibility to keep the cost low and give maximum value by thinking of alternate material, new technology. Commercial vehicles are abused in various applications. Various brands are available in the market and are good at one or two good performance parameter or

feature. Many manufacturers try to give what is possible for them to give in the product and expect success. The study will provide priority matrix to the manufacturer.

## SCOPE FOR FURTHER STUDY

At overall level, one can easily conclude that ILCV customers are satisfied with the product to the tune of 70 to 80%, this means there is tremendous amount of scope to improve customer satisfaction in ILCV segment. To address this gap, further detail application wise study is required to understand micro level issues. Every issue has got solution and customized models as per applications can be planned.

## REFERENCES

1. Marketing in the network economy - Ravi S Achrol, Philip Kotler- Journal of Marketing- 1999, 63, ABI/INFORM Global-page 146.
2. Kothari, C.R. (1985). Research Methodology- Methods and Techniques, New Delhi, Wiley Eastern Limited Bumper to Bumper: Mike & Byrnes
3. Muller, T. E., & Bolger, C. (1985) Search Behavior of French and English Canadians in Automobile Purchase, International Marketing Review.
4. The Long Haul: A Trucker's Tales of Life on the Road: Finn Murphy 6. In the Driver's Seat: Interstate Trucking -- a Journey: Marc Mayfield Auto magazines- Car and Bike, Motor India 2014-15, 2016-17, 2017-18

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