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TO UNDERSTAND THE IMPACT OF MAINTENANCE COST OF AUTOMOBILE ON CUSTOMERS' LIFE CYCLE COST

Ratnakar Nilkanth Phadtare

Abstract :-

Understanding whether or not the upkeep price of running automobile affects the customers life cycle price of owning the automobile is important because it has result on the manufacturer's pricing of ultimate product. Though the life cycle price from customers and makers purpose of read are different in some areas however none the less they need result on the cost accounting. The life cycle price of a product includes not solely the value of raw materials and labor required for producing, however it includes all prices related to the merchandise from beginning to disposal. Customer life-cycle prices embody the overall prices incurred by a client to amass and use a product or service till it's replaced. client life-cycle prices for a automobile, for instance, include the value of automobile itself and the prices of in operation and maintaining the automobile less the disposal price of the automobile. This paper can reveal that factors ar most significant for customers and people that can be of lesser importance. In conclusion, this paper closely examines the if maintenance price of the automobile has any effect on the opposite price like acquisition and disposal price from customer's purpose of read.

Key Words:-life cycle costing, customer's life cycle cost, maintenance cost, disposal cost, costing.

INTRODUCTION

The idea of a life cycle cost is generally applied to very expensive capital purchases such as buildings, factory machinery, and military systems. Life cycle costing was originally designed for procurement purposes in the US defense and is still used most commonly in military sector.

The customer's life cycle cost of automobile differs form that of the manufacturer's. While the manufacturers as the product starts to take shape from the idea which then turned in to design by doing lot of research. A product life-cycle may be classified into stages. Each of these stages includes at least one of the functions that are Research and Development, Design, Production, Marketing, Distribution and Customer service. The stages of a life-cycle are as follows: Planning and designing stage which includes the research and development, the next one will be manufacturing and sale of product in this stage production, distribution, marketing are includes, while service and disposal stage includes the after sales service and retiring the product from the market.

According to Office of Government Commerce (OGC) Life cycle costing (LCC) is a technique to estimate the total cost of ownership³.

Arto, K. A. (1994)¹ mentions that final customer's product life cycle cost is the total costs the customer incurs for the entire time he owns the product.. Product design and planning should be based on the analysis of the market. He lists three dimensions that a customer considers while purchasing a product that is Product quality, Time related factors (availability, length of life), and Purchase price.

The life cycle cost of a product has proven to be a useful instrument in the decision making process related to investments.²

From customers perspective to make a economically right decision it is essential to understand the total cost involved in ownership of the automobile. And until the customer disposes of the automobile the major cost involved after the buying is the maintenance cost. If that is high the customer when changing the automobile will not replace it with the same brand of car. To survive in the competitive market companies need to understand the costing decision from customer's perspective so they can deliver what is expected by customers.

The main theme of this study is to know if the maintenance cost has any kind of impact on acquisition cost as well as the resale value i.e. disposal cost.

OBJECTIVES OF THE STUDY

- To understand if the maintenance cost of automobile has any impact on the acquisition of a particular brand.
- To know if the maintenance cost of automobile has any impact on the resale value of the automobile

METHODOLOGY

Under present study the respondents in survey were those who are the owners of the cars. The survey conducted in Pune city helped to gather the primary data through face to face interviews with car owners. The questioner designed for survey had questions pertaining to length of ownership; influencing factors while purchase of the automobile, the cost of spares and so on. Random sampling technique was used wherein the respondents were from all segments of various brands of cars in all 412 respondents. The respondents were both male and female from age group ranging from below 30 to over 60. The information collected on influencing factors were analyzed by using Likert scale on 1 to 5 where 1 represents the least influencing factor while 5 shows a significant important factor. Later mean and the correlation coefficient were calculated.

FINDINGS

Of the total respondents about 85% were male. Amongst the respondents about 40% were in age group of 46 to 59 followed by 33% in age of 31 to 45 years.

Table 1: Respondents: Gender wise

Gender	Respondents	Percentage
Male	349	85
Female	63	15
Total	412	100

Table 2: Respondents: Age wise

Age	No of Respondents	Percentage
> 60	46	11
46 - 59	165	40
31 - 45	138	33
Up to 30	63	15
Total	412	100

Table 3: Impact factors on purchase of automobile

Impact Attributes	Mean
Brand Name / Reputation	4.5
Affordability	4.1
Performance of car	4.3
Maintenance cost of car/ Fuel/ spares	3.6
Resale Value	3.2

Table 4: Correlation

	Brand Name	Affordable price	Performance	Maintenance	Resale Value
Brand Name / Reputation	1				
Affordability	0.24	1			
Performance of car	0.82	0.18	1		
Maintenance cost of car/ Fuel/ spares	0.07	1.26	0.59	1	
Resale Value	0.81	0.40	0.56	0.78	1

All data obtained from primary research. Significance level 0.05 $r = 0.80$

The table no 1 clearly shows that Brand Name / Reputation has stronger impact on the customers mind while acquiring the automobile. While the resale value and the maintenance cost which includes the after sale service, cost of fuel and the cost of spares has got no prominent impact on customers.

The table 2 shows that amongst all the variables there exists is a strong positive co-relationship of the variable Affordable Price and Maintenance Cost (1.26)

Of the positively correlated influencing variable coefficient the significant positive co-relationship of variable Brand Name is found with Performance of the Car (0.82) and Resale Value (0.81). There exists the weak co-relationship of variable Brand name with variable Maintenance Cost (.07).

The co relationship with variable Resale Value with variable Maintenance Cost is also significant at (.78)

CONCLUSION

The results depict the real life situation where a customer, that the variable affordability has a very strong positive co relation with the variable Maintenance Cost. It could be that the expensive automobiles tend to have the higher maintenance cost so if one can afford to buy the automobile then the customer is aware of the cost involved in owning the car.

When buying the car the brand name has more importance on their decision. While the maintenance cost or the cost of replacement has not much impact. But when considering the co relation matrix the Brand Name has the positive co relationship with performance of the car and resale value. The customer does care more about the performance of the car as well as the resale value. But most significant here is that Brand Name has no co relation with the Maintenance Cost. It is clear when buying the car people do not think about the cost of spares or the cost of servicing etc. There is a trend of changing the car in five to seven years after purchase of automobile and in many cases the maintenance costs are relatively low during the initial phases of ownership. It might be interesting to find out the impact of same on the second hand car buyers. The impact of automobile brands who have the better resale value has seems to be diminishing lately due to loyalty bonuses offered by the dealers and companies.

The maintenance cost is the longest occurring cost in terms of customer's life cycle cost of ownership but it clearly shows that it has no great impact on acquisition cost not the disposal cost if there is the variable Affordability. So it clearly states that the Affordability and Maintenance costs go hand in hand. The customer has a clear idea about the all the cost involved in the ownership of the automobile and this is tied up to Affordability and the Brand Name.

The companies need to understand the impact of Maintenance Cost, as they need to control this in order to be successful.

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