

## **Impact of Operating Expenses on Sale of Automotive's Industry in Pakistan**

### **Case Study by Leading Automotive Companies in Pakistan**

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### **\_Abstract**

The research aim to analyze the impact of operational expenditures on the sales of CKD(Complete Knock Down) Vehicles in the context of Pakistan. The findings of the research were derived through qualitative and quantitative data collected from secondary and primary resources respectively. Considering the requirement of the research, the data that was collected was based on different companies in the automobile industry of Pakistan. The primary data was acquired by survey conducted from customers of automobile companies in Pakistan. On the other hand, the secondary data was gathered from different online sources and websites. The overall findings illustrated that there is a significant impact of operational expenditures on the sales of CKD Vehicles in Pakistan. In addition to that, the findings reported that the overall volume of operational expenditures of the automobile companies of Pakistan are constantly moving upwards. Nevertheless, the volume of potential sales of CKD vehicles has risen in Pakistan over the years which shows that there might exists a positive impact between the variables included in the current study. Nevertheless, the limitation of this research is that the findings are only based in Pakistan due to which it will be difficult to apply them in the context of the automobile industry of any other country.

### **Introduction**

The rise in operating expenses poses several challenges for the automobile industry. According to Agwan (2019), a major challenge is allocating the budget and increasing the price of the vehicles to balance the profit margin. This action impacts the market, and the chances of declining vehicle sales arise. The reason lies in the affordability of the market as the vehicles become available at a higher price and meet lower sales. Even though it is not always the case, the rising cost of operation hints at the market struggle to purchase new models of vehicles that are priced above their predecessors and compete in the economy, especially in the case of a developing or underdeveloped one. To determine the degree of influence that increasing operating expenditures have on the sales of CKD vehicles in Pakistan. Through this aim, the researcher intends to carefully analyze and evaluate the impact that operating expenses incurred in the manufacturing of CKD vehicles can have an impact on their sales considering the fact that increase in operating expenditures can result in an increase in the prices of these vehicles.

The objectives developed for this research are illustrated below.

- To identify the nature of operating expenditures related to CKD vehicles.
- To analyze the impact of the increase in operating expenses on the overall sales of CKD vehicles

### ***Literature Review***

According to Genzlinger et al., (2020), the goal of new automobile companies is to make driving affordable enough to eliminate the need for automobile ownership. Nowadays, automobile companies depend on separate car consumption to drive, and cost-effectiveness and the biggest automobile companies are moving their focus on sales services instead of depending on car sales.

It can impact the economic uncertainty on sales of automobile companies. It is stated by Chand, Thakkar and Ghosh (2018) that automobile companies can impact economic uncertainty due to the increase and adoption of ownership cars. To reduce the experience of risk and market uncertainty, automakers and creative equipment makers should be aware of economic uncertainty. On the contrary, it is stated by Attaran (2017) that overloading has emerged as one of the most important problems the automobile companies are facing because of the increasingly competitive environment in the manufacturing of automobiles.

It is defined by Wadud and Leiby (2016) that car meetups and automobile companies have become an important part of life and it impacts the economic uncertainty on sales of automobile companies. So, it makes sense that during this time, the GDP of motor vehicles has increased. Car production and sales have decreased due to economic uncertainty and demand in other sectors expanded more quickly and because of an increase in imported automobiles and parts. It is also defined in the study of Hensley and Zielke (2014) that the biggest automakers have invested a lot in acquiring technology and quickly increasing them internally. Even established software providers have made enormous expenses to stay ahead of the competition as compared to other automobile companies. It can impact economic uncertainty on sales of automobile companies and in a future when automobiles are more autonomous and networked, every automaker wants to compete. On the opposite side, it is defined by Berkeley and Jarvis (2018) that one of the challenges linked with automobile companies' hand is technology and its economic factors.

It is described by De L'Estoile (2014) that the typical car is a four-wheeled, internal combustion engine-powered conveyance for the land-based transportation of persons and commodities. The automobile companies have been involved by people everywhere and every time economic growth

or uncertainty and enough money to purchase cars. It is also defined by Wad (2010) that the companies of automobile started working in Europe and the USA in the late 19th century and extended globally by export, authorizing and foreign direct investment to impact the economic uncertainty on sales of automobile. Import-Substitution Industrialization programs were implemented in all significantly developing automobile manufacturing countries to replace the import of expensive motor cars and parts from industrialized nations to decrease the economic uncertainty about sales. On the other hand, it is described by Jardim and Casley (2013) that it can be challenging for automobile companies as a seemingly enormous quantity of data is reportedly collected every day by modern automobiles built with automotive software, scrutinizing aspects like speed, performance, component behavior and allowing for the creation of real-time insights.

## **Research Methodology**

### ***Overview of the Paper***

The underlying chapter is about providing an overview of the elements of the methodology that have been applied in the current research. The chapter will first provide illustration of the problem of the study followed by the presentation of the hypothesis regarding which analysis is being performed. The other step that is important in the current chapter is about providing justification of the methodological elements chosen.

### ***Hypothesis of the Study***

Hypothesis: “Operating Expenses have a significant impact on Sales”

The problem that is being studied in the research under question is about determining the ways through which increased operating expenses can have an impact on the sales of CKD in Pakistan.

The problem has been identified as significant because there are different factors other than the operating expenses that can have an influence on the sales of these kinds of vehicles.

There is a significant degree of uncertainty regarding whether the increase in operating expenditures have a positive, negative or no impact on the sales of CKD cars. This is because the sales of these kinds of cars are generally not considered as only affected by the increase or decrease in cost of operations. Therefore, there is limited knowledge and understanding available regarding this issue that needs to be considered (Lopez et al., 2021). Therefore, the general problem studied in the current research is to analyze the impact of economic uncertainty on the sales of CKD cars. On the other hand, the specific problem that is studied is concerned with evaluating the impact of operating cost or expenditures on the overall sales of CKD in Pakistan.

### ***Sources of Data Collection***

The primary source refers to the process of collecting data from first-hand data by directly interacting with the targeted respondents. On the other hand, the secondary source is about utilizing second-hand data by exploring a variety of sources (Mohajan, 2018). The source used for collecting data in the current research is secondary. The secondary source that is being utilized is the annual report of 3 different organizations for the past 10 years to analyze the sales of their completely knock-down vehicles along with their operating expenses. There are two tools used for data collection purposes in this research as far as the primary data is concerned, they are questionnaire and interview. The source from where the questionnaire was adopted was the manufacturer of CKD vehicles. The sampling method that was used was random sampling where the respondents were selected on random basis. The overall sample size that was chosen was of

100 individuals. The sample size for the research was collected from the overall population of 5000 employees.

### ***Research Method***

The first step in determining the methodology of the current study is to evaluate the kind of data that is being utilized out of the two options available such as qualitative and quantitative. Considering the need to analyze the impact of the independent variable i.e. increasing operating expense on the dependent variable of completely knocked down vehicle sales, it was decided to use quantitative data for deriving relevant findings for the current study.

### ***Data Analysis***

Since the data gathered from secondary sources is quantitative in nature; therefore, different statistical techniques were applied to determine the extent to which independent and dependent variables are linked with each other. Examples of the statistical techniques applied were regression and correlation analysis. The use of regression was deemed important to test the hypothesis and determine the association between the identified variables such as operating expenses and sales of completely knocked down vehicles on the other hand, the use of correlation analysis was important to determine the extent to which these two variables are linked with each other. The application of these statistical techniques is being made through SPSS which is a highly recognized software used for carrying out complex calculations regarding identifying the trend of relationships that exist between various variables.

### ***Importance and Relationship of Operational Expenses and Sales***

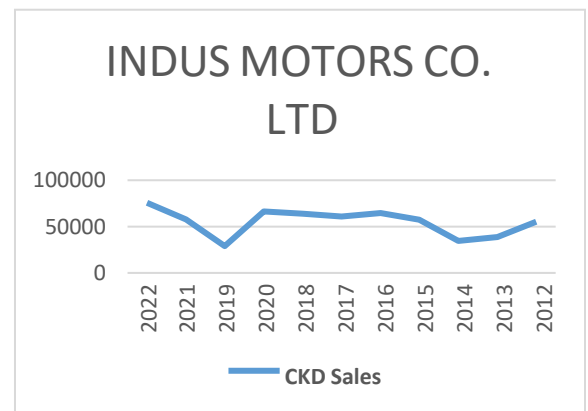
Based on findings derived based on secondary data, it is evident that there is largely a positive relationship between operational expenses and sales of CKD vehicles in Pakistan in the past 10 years. This is because it is highlighted in the statistical findings that increase in operational expenditures over the years has also resulted in simultaneous increase in the overall sales of CKD vehicles.

### **Findings**

The underlying chapter is about the presentation, analysis and interpretation of secondary data that was acquired through the annual reports of different car manufacturing companies related to increase in operating expenditures and their association with the sales of CKD vehicles in Pakistan. In addition to that, the chapter will provide discussion about the overall findings and linking them to the hypotheses of the research as well.

### ***Analysis of the relationship based on Line Chart***

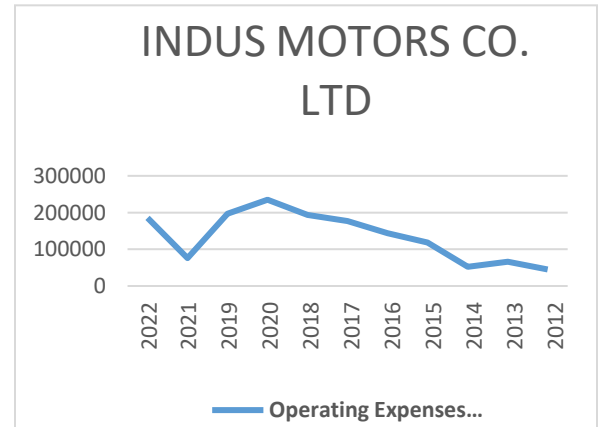
The first part of the analysis is about Indus Motors operating in Pakistan. The trend that has been shown for the past 10 years depicts that there has been a mixed relationship between the two variables of this study such as sales of CKD vehicles and operating expenses. This is because in the majority of the years, there has been an adverse relationship between two of them as



**Figure 1**

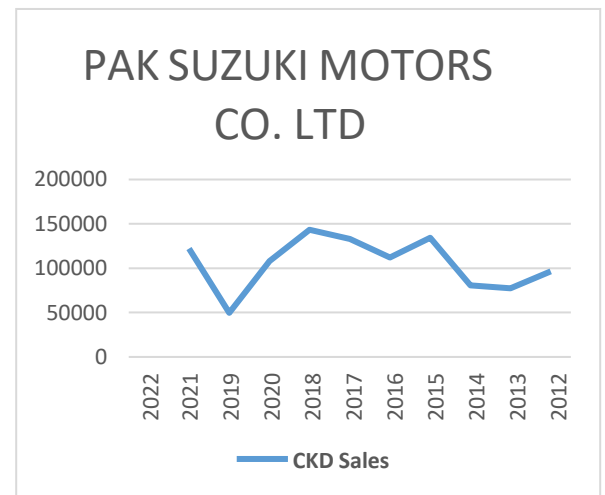
increase in operating expenses is identified as linked with decline in sales.

On the other hand, decline in operating expenditures has also reported increase in sales in some years as well. In contrast, there are years where increase in operating expenses is being coupled with increase in overall CKD sales as well.



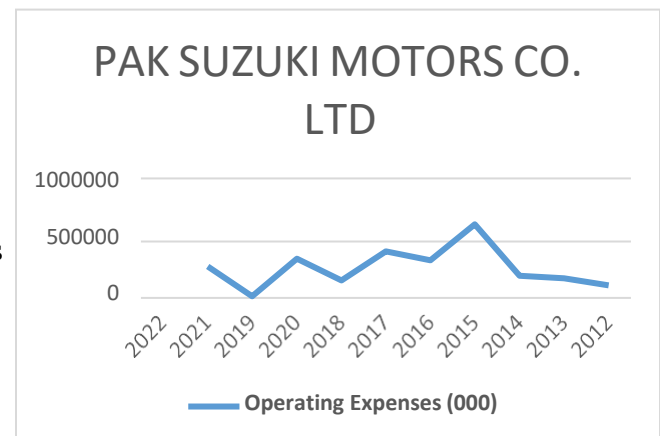
**Figure 2**

As a result of that, it can be challenging to provide a significant degree of clarity regarding the trend of association between these variables. In the case of Pak Suzuki Motors, which is another large automobile manufacturing organization of Pakistan, the findings suggest that the overall sales of CKD vehicles of the organization have increased from 96370 to 121882 between 2012 to 2022.



**Figure 3**

On the other hand, the overall expenditures have also risen from 111152 to 279670 which illustrates that both CKD sales and operating expenses go hand in hand. However, upon year by year analysis of the values, it was evident that there were some years where negative association is being witnessed as well in the form of increase in the sales of CKD vehicles and the decline in the operating expenses.

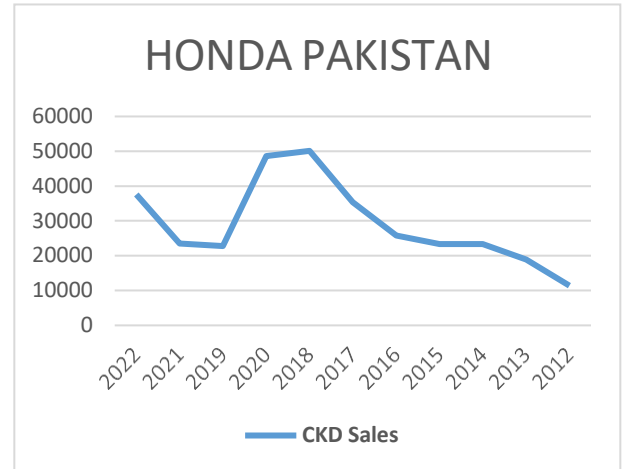


**Figure 4**



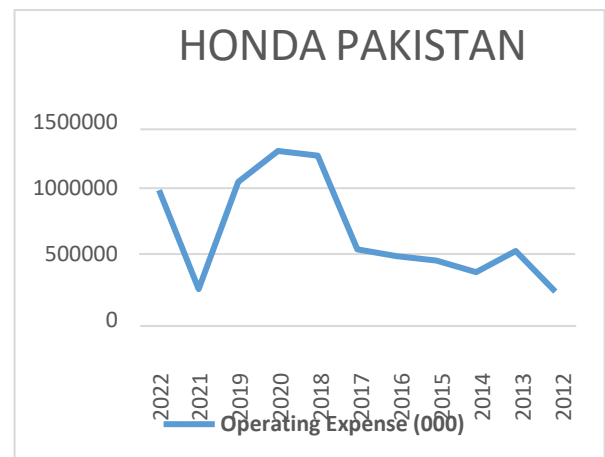
This shows that there might be other factors as well that are having an influence on the overall sales of CKDs in Pakistan rather than just increase or decrease in the operating expenditures of Pakistan.

The third company that was included as part of analysis was about the volume of sales and operating expenditures by Honda in the past 10 years.



**Figure 5**

Similar findings have also been reported regarding the sales of Honda in comparison to the other companies reported above. This is because although the relationship between the two seems positive; yet, in some years it has been highlighted as a negative association between themselves.



**Figure 6**

### **Employee Opinion (Questionnaire Analysis)**

The quantitative data during the surveys were gathered regarding different aspects or elements that can have a significant impact on the overall demand of CKD vehicles. Majority of the responses were of the opinion that these factors have a significant impact on the overall demand of CKD vehicles. The details related to the results of the survey in light of the responses of employees of different automobile companies of Pakistan are provided below.

Descriptive Statistics										
	N	Min	Max	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
							Statistic	Std. Error	Statistic	Std. Error
Logistics Cost	149	1.00	5.00	2.3289	1.18802	1.411	.783	.199	-.294	.395
Customer Service	149	1.00	5.00	2.9664	1.40663	1.979	.045	.199	-1.305	.395
Reduction	149	1.00	5.00	2.3423	1.15532	1.335	.871	.199	-.086	.395
Flexibility Delivery	149	1.00	5.00	2.0268	1.17373	1.378	1.269	.199	.864	.395
Taxes Government	149	1.00	5.00	2.0470	.92514	.856	1.463	.199	2.908	.395
Price Commitment	149	1.00	5.00	2.2349	1.25950	1.586	.821	.199	-.479	.395
Production Cost	149	1.00	5.00	1.9866	.85414	.730	1.674	.199	4.342	.395
Strategic Management	149	1.00	5.00	1.9396	.89464	.800	1.612	.199	3.673	.395
High_Import_Duties	149	1.00	5.00	2.0537	1.19563	1.430	1.194	.199	.575	.395
Devalued Currency	149	1.00	5.00	2.1074	1.19198	1.421	1.052	.199	.332	.395
Valid N (listwise)	149									

Table 1

The first finding was related to descriptive statistics which was carried out to determine the trend of responses derived through surveys. The mean values of responses regarding all factors were just above or within 2 which illustrates that majority of the respondents agreed with these statements because 2=agreed in the survey questionnaire.

Coefficients					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	1.140	.225		.000
	Flexibility Delivery	.997	.321	1.012	.002
	Taxes Government	-.164	.146	-.131	.262
	Devalued Currency	-.469	.217	-.484	.032
	High_Import_Duties	.020	.231	.021	.930
	Strategic Management	.429	.153	.332	.006
	Customer Service	-.124	.050	-.151	.014

a. Dependent Variable: Reduction\_OE

Table 2

The next part of the statistical analysis is related to determining the impact of different operating expenses factors that can have an impact on the reduction of operating expenses of CKD vehicles in Pakistan. The sig value of operating expense factors such as flexibility of delivery, devalued currency, strategic management along with customer service are considered as being influential

on the variable of reduction in operating expenditures as far as automobile companies in Pakistan are concerned.

		<b>Correlations</b>			
		Customer Service	Reduction OE	Production Cost	High_Import_Duties
Customer Service	Pearson Correlation	1	-.072	.135	.049
	Sig. (2-tailed)		.384	.102	.551
	N	149	149	149	149
Reduction OE	Pearson Correlation	-.072	1	.443**	.632**
	Sig. (2-tailed)	.384		.000	.000
	N	149	149	149	149
Production Cost	Pearson Correlation	.135	.443**	1	.444**
	Sig. (2-tailed)	.102	.000		.000
	N	149	149	149	149
High_Import_Duties	Pearson Correlation	.049	.632**	.444**	1
	Sig. (2-tailed)	.551	.000	.000	
	N	149	149	149	149

\*\* . Correlation is significant at the 0.01 level (2-tailed).

*Table 3*

The other statistical tool applied in the research was related to correlation analysis which was carried out to determine the extent to which different factors related to operating expenditures have an impact on the reduction of operating expenditures of CKD vehicles in Pakistan. In line with the findings reported through the table above, it is demonstrated that high import duties and production cost have a positive impact on reducing operating cost of CKD vehicles in Pakistan. This means that increase in these costs result in increase in the cost of CKD vehicles; whereas, decrease in their cost cause decline in their overall cost.

### **Opinion of CEO Interview**

The first question that was asked from the respondent was related to the ways through which Toyota intends to compete with hybrid assemblers in the situation where the taxes and duties of the Government are less or 0 on the hybrid manufacturers and in the situation when the fuel prices are skyrocketing. The CEO in the interview acknowledged the significance of this threat and stated

that one of the ways through which Toyota intends to compete with hybrid assemblers is through the initiation of business and cost structure reforms for the realization of an efficient solid management platforms with the help of which it can respond effectively to the situation arising because of the popularity of hybrid vehicles. The second question that was asked from the CEO was related to the need for Toyota to deal with the situation of declining demand by reducing operating cost and offering best prices to customers. The CEO regarding this issue stated that we will be looking to establish close association with suppliers in different locations so that disruptions in supply chains can be avoided and the overall cost can be reduced. The third question that was included in the interview was related to offering price commitment to customers despite increase in operating expenditures. The CEO related to this issue was of the opinion that the adoption of a cost-efficient model will be very important to make sure that the overall prices of car manufacturing can be reduced to the extent to which price commitment can be offered on consistent basis to customers. The final question asked from the respondents during the interview was related to the situation where leasing companies are not able to facilitate customers because of Government restrictions along with highlighting the issue of devalued currency and economic uncertainty. The CEO expressed concerns on this issue by highlighting that economic uncertainty has certainly become a very significant challenge and therefore it is important that provisions related to it are being incorporated within our policies to minimize their negative impact. It is expected that in this way, we will be able to achieve our objectives related to offering products to customers at prices that will create maximum value for them.

## **Conclusion and Recommendations**

The overall conclusion extracted from the results is that it is important for car manufacturers such as Toyota to identify ways through which they can manage their operational expenditures and overall cost of productions. This is because managing these expenditures can have a direct and positive association with the increasing the demand of cars through creating additional value for customers. Majority of the respondents during surveys agreed with the importance of increase in different operational expenditures and their influence in terms of overall sales of CKD vehicles.

### **Recommendations**

With the constant rise in operating expenditures of the CKD automobiles and their significance in terms of having an influence on the sales of these vehicles, it is recommended that the policy makers of different automobile companies should look towards improving association with suppliers as part of the process of reducing overall operational cost. One of the ways through which this can be done is by choosing the kind of suppliers that can respond effectively to the environmental challenges of the business.

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### **Author's Biography**

Shahryar Khan is a committed and passionate professional in the field of business administration and marketing. He completed his Bachelor's degree in Business Administration from Karachi University, where he gained valuable knowledge and experience. Currently, Shahryar is pursuing a Master's degree in Business Administration (Marketing) from Karachi University Business School. He is currently working in Indus motors Pakistan as team member of their sales and market planning team.