### ASSIGNMENT TASK NO. –1

# Research Methodology I

**QTTM509** 

## RESEARCH ON TOYOTA REVENUE

## <u>Submitted To – Dr. Tanima Dutta</u>

SUBMITTED BY:GROUP 5
SEC-Q2240



(Master of Business Administration)

MITTAL SCHOOL OF BUSINESS

## **Annexure-V- Cover Page for Academic Tasks**

Course Code: QTTM509

Course Title: RESEARCH METHODOLOGY-I

Course Instructor: DR. Tanima Dutta

Academic Task No.: 01

Academic Task Title: Research on Toyota revenue

Date of Allotment: 30/08/2022 Date of submission: 10/09/2022

Student's Roll no: RQ2240A14 Student's Reg. no: 12202342

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#### **Declaration:**

I declare that this Assignment is my individual work. I have not copied it from any other student's work or from any other source except where due acknowledgement is made explicitly in the text, nor has any part been written for me by any other person.

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#### **Evaluator's comments** (For Instructor's use only)

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Signature and				
Date: Marks				
Obtained:				
Max Marks:				

#### INTRODUCTION

Toyota Kirloskar Motor Private Limited (TKM) is an Indian joint venture between Toyota Motor Corporation (89%) and Kirloskar Group (11%), for the manufacture and sales of Toyota cars in India. The company released its first product in the Indian automotive market with the launch of the Qualis in 2000. Occupying the multi utility vehicle (MUV) segment, sales of the model grew within a short span of 2 years to capture 20 per cent market share from established local manufacturers such as Mahindra and Tata Motors. In 2002 and 2003, Toyota introduced the Camry and Corolla respectively. In 2005, TKM launched the Innova, based on a modern IMV platform. In 2017, Toyota introduced its luxury brand Lexus in the country.

Toyota started considering its partnership agreement with Suzuki in the Indian market in 2016. In 2017, both companies agreed to market electric vehicles in the country. Plans also included production of the Suzuki-developed SUV at TKM from 2022 and the production of hybrid electric vehicles in India. In 2019, TKM released the Glanza as a rebadged Baleno, and the Urban Cruiser as a rebadged Vitara Brezza in 2020.

TKMPL's current plant at Bidadi, Karnataka is spread across 850 acres and has a capacity of 110,000 vehicles per annum. TKMPL's second manufacturing plant on the outskirts of Bengaluru, Karnataka has a capacity of 210,000 vehicles per annum. Total production capacity is 320,000 vehicles per annum. In 2011, it announced that it was increasing production to 210,000 vehicles per annum, due to increase in demand. In 2014, Toyota Kirloskar Motor temporarily suspended the production at two of its assembly plants in Bidadi, Karnataka whose production capacity was 310,000 units annually and has employee strength of 6,400. Cause for the shutdown was failure to reach an agreement with the union over the issue of wages, deliberate stoppages of the production line by certain sections of the employees and abusing & threatening of supervisors thereby disrupting the production for the past 25 days. As of April 2019, it has more than 350 dealerships in 225 cities across India.

The automotive industry in India is the fourth-largest in the world as per 2021 statistics. In 2022, India became fourth largest country in the world by valuation of automotive industry. As of 2020, India is the 5th largest automobile market in the world, surpassing Germany in terms of sales.

The company was originally founded as a spinoff of Toyota Industries, a machine maker started by Sakichi Toyoda, Kiichiro's father. Both companies are now part of the Toyota Group, one of the largest conglomerates in the world.

#### FINDINGS FROM THE REVENUE OF THE TOYOTA

The research we did to showcase our concept about statistical tool was that we have taken two sets of raw data i.e..., revenue which is having the relative factors of sales of revenue, vehicle production, vehicle sales. The data we were taken here is financial year from 2017 to 2021.

#### PROBLEMS FACED BY TOYOTA

- 1. We can see from the data; the sales have been consistent over period in Japan i.e., in range of 2200-2300 thousand units. But, in last year it has decreased a bit which is a concern for the company.
- 2. What would Toyota do to match sales growth with its competitors? Toyota's rivals Tesla and Volkswagen are unit matching Toyota's stride for stride. Also, as per a speculator capitalist, Tesla's analysis might soar to \$2 trillion within the next 3 years.
- 3. Keep in mind that reliability goes together with proper maintenance and repairs. The team at Repair Pal estimates that the average annual repair cost for Toyotas is \$441, which indicates ownership costs that are slightly above average.
- 4. Bureaucracy Problem
  - ➤ The bureaucracy problem that surrounded the Toyota expansion program in the United States was the failure in the implementation of effective teamwork.
  - ➤ This occurred as its 400 employees at the United States plant put together and distributed 250,000 parts each day to regional hubs throughout the country. As a result, it was seen as a team-oriented space.
  - ➤ Unfortunately, it began operating before the team had received sufficient training. The management was under pressure to deliver parts on schedule as a result, which led to the adoption of a conventional bureaucratic system.
  - Thirteen supervisors were responsible for making decisions for sizable work units under this setup. Because they had been promised a teambased work environment, the regional centres were dissatisfied and reprimanded management for breaking their commitment.

## The statistical tools used in the case study

- Arithmetic Mean.
- Median.
- Standard deviation.
- Maximum & Minimum.
- Quartile.
- Skewness
- Kurtosis

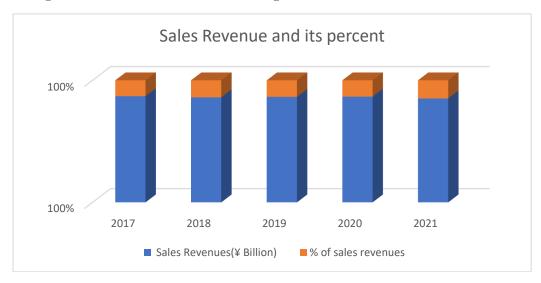
**Descriptive Analysis:** The descriptive statistics used to find net income, operating income, capital investment and so on.

Table: Revenue and Income for Toyota from 2017-2021

Financial Year	Sales Revenues(¥ Billion)	% of sales revenues	Operating Income(¥ Billion)	Net income(¥ Billion)
2017	27597	7.2	1994	1831
2018	29380	8.2	2400	2494
2019	30226	8.2	2468	1883
2020	29866	8	2399	2036
2021	27214	8.1	2197	2245
Mean	28856.6	7.94	2291.6	2097.8
Standard Deviation	1364.992601	0.421900462	194.8827853	273.762123
Minimum	27214	7.2	1994	1831
Maximum	30226	8.2	2468	2494
Median	29380	8.1	2399	2036
Q1	27597	8	2197	1883
Q3	29866	8.2	2400	2245
Mode	#N/A	8.2	#N/A	#N/A
RANGE	3012	1	474	663

Dataset was created using this website https://global.toyota/en/ir/finance/

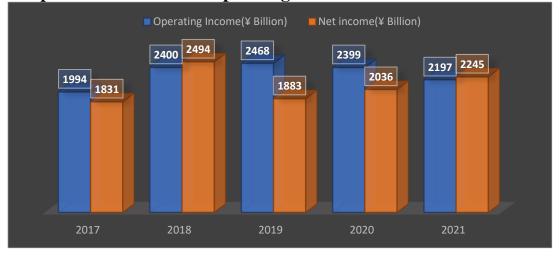
Graph 1: Sales Revenue and it's percent



**Graph 2: Production Vs Sales** 



**Graph 3: Net Income vs Operating income** 



**Online Spreadsheet link:** https://docs.google.com/spreadsheets/d/1PWI-7cAuxLZmiCRJhJ5nMcvFdI45TmcQ/edit?usp=sharing&ouid=1016720961514 64662047&rtpof=true&sd=true

#### **Solutions**

- Toyota spends just 3.6% of their total sales 27214 billion on R&D that is 1090, which is the lowest percentage of any manufacturer. This implies that Toyota needs to spend less on R&D to make the same amount of money as its main competitors. Through extensive, effective R&D spending, Toyota has been able to outperform its rivals and grow to be one of the world's largest automakers by investigating and introducing cutting-edge technologies and automobiles to the public.
- By being service oriented instead of simply product oriented & by putting the customer's needs first rather than just their wants.
- partnering with rivals to expand the market rather than merely competing for a small market.
- Japanese mass production lagged other nations' products in the global market. Toyota products were very expensive because of the 40% tax. Subsidiaries on the American market and in the United States were a complete failure. So, they need to focus on that also.
- The team at Repair Pal estimates that the average annual repair cost for Toyotas is \$441, which indicates ownership costs that are slightly above average. So, they need to better performance or estimation to reduce provided service cost & convert those cost to their revenue.

### **CONCLUSION**

Toyota's current issues are not the consequence of a single, isolated blunder, but rather a series of related, corporate errors. Several corporate departments of the business were involved. As a result, Toyota's management system failed to prevent the catastrophe.

The other market participants should most importantly learn that regular performance evaluations are necessary for good management and production processes. This aids in preventing crises brought on by costly blunders that could have been prevent.

### **Reference Links**

- 1. <a href="https://global.toyota/en/ir/finance/">https://global.toyota/en/ir/finance/</a>
- Created Dataset available in this link:
   <a href="https://docs.google.com/spreadsheets/d/1PWI-7cAuxLZmiCRJhJ5nMcvFdI45TmcQ/edit?usp=sharing&ouid=10167209">https://docs.google.com/spreadsheets/d/1PWI-7cAuxLZmiCRJhJ5nMcvFdI45TmcQ/edit?usp=sharing&ouid=10167209</a>

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- 7. <a href="https://economictimes.indiatimes.com/industry/auto/auto-news/toyota-posts-first-loss-in-5-years-on-slow-sales/articleshow/87169008.cms">https://economictimes.indiatimes.com/industry/auto/auto-news/toyota-posts-first-loss-in-5-years-on-slow-sales/articleshow/87169008.cms</a>
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