

# Dishwasher Market

**Section : 8**

**Group Number : 19**

**Microeconomics Project : Interim Report**

**Submitted to faculty : Ishita Tripathi**

**Date of Submission : 20-09-2020**

Roll No.	Name	Program
AU1940156	Jeenal Shah	B. Tech. C.S.E.
AU1940183	Mithil Parmar	B. Tech. C.S.E.
AU1940134	Meghna Kanade	B. Tech. C.S.E.
AU1940187	Ankit Devani	B. Tech. C.S.E.

## Product Description

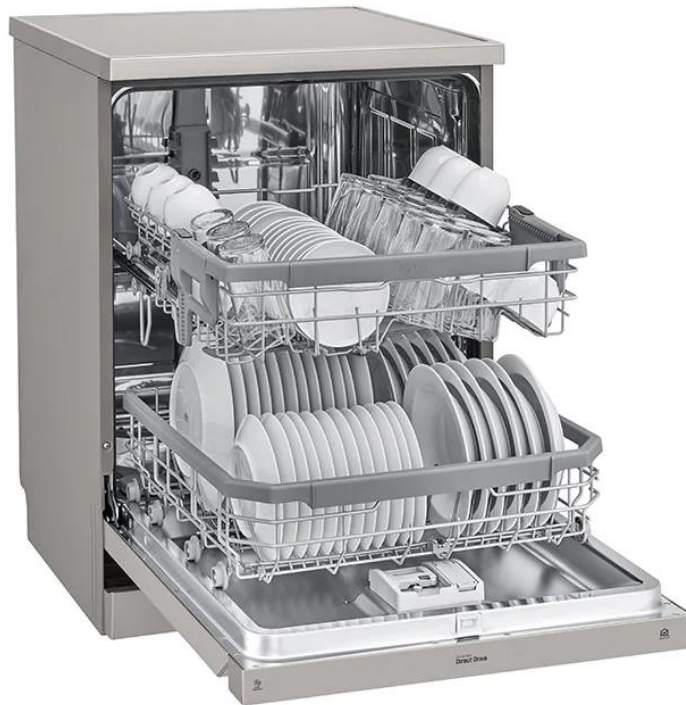


Figure 1 Reference: <https://www.lg.com/in/dishwasher/lg-DFB424FP>

A dishwasher is a machine for cleaning dishware and cutlery mechanically. A mixture of dishwasher detergent and hot water (around 45 to 75 °C) is blown to clean dishware. There are generally 5 types of dishwashers classified on the basis of their functionality:

- 1) Portable dishwasher
- 2) Built-in dishwasher
- 3) Drawer dishwasher
- 4) Slimline dishwasher
- 5) Counter top dishwasher.<sup>[1]</sup>

Depending on the type of dishwasher price varies between ₹18,000 to ₹60,000. Dishwasher Detergent/liquid is a complementary good of dishwasher. On average it costs ₹600 for a 400g pack. Dishwashers don't have a substitute good but there are substitute service providers which are maids. But why were Dishwashers completely unpopular in Indian Markets before phase of COVID?

In India, majority of population is poor/middle class so people don't prefer to spend money on such items whose price is as high as this and which consumes high amount of electricity. The houses in India are too compact to accommodate Dishwashers. We will look into other reasons in depth under demand section.<sup>[2]</sup>

## **Demand**

### **Before lockdown**

#### **1. Demand Overview**

The major demand of dishwashers has always been from restaurants and hotels. The houses which can afford to buy a dishwasher can also afford to have a servant, especially in India.

When a maid can be easily hired to do the job, what's the need of a dishwasher? Maids can do the hard scouring to remove all the hard stains. "A dishwasher wouldn't wish me 'Eid Mubarak' or 'Happy Diwali'," wrote Shobhaa De in a tribute to her maid in the Times of India (ToI) in 2002. "A dishwasher wouldn't provide me with a sane, practical commentary on current affairs first thing in the morning." Due to such Indian mentality and less awareness, there was a very low demand for dishwashers. But recently due to the redevelopments and modernization, it's easy to have a dishwasher in the kitchen, fewer people have servants these days as the dirty dishes may pile up which is unhygienic. This led to some increase in the demands of dishwashers.<sup>[3]</sup>

#### **2. WTP**

We could observe that a dishwasher was considered as a luxury, there were fewer consumers and the WTP was less than the actual price. As there was fewer demand, consumer surplus was negative which indirectly means that most consumers did not want to buy the product.

### **3. Elasticity of Demand**

Dishwashers were a luxury good. The demand wasn't much as explained above. Hence, we could deduce that the demand was elastic.

## **During and After Lockdown**

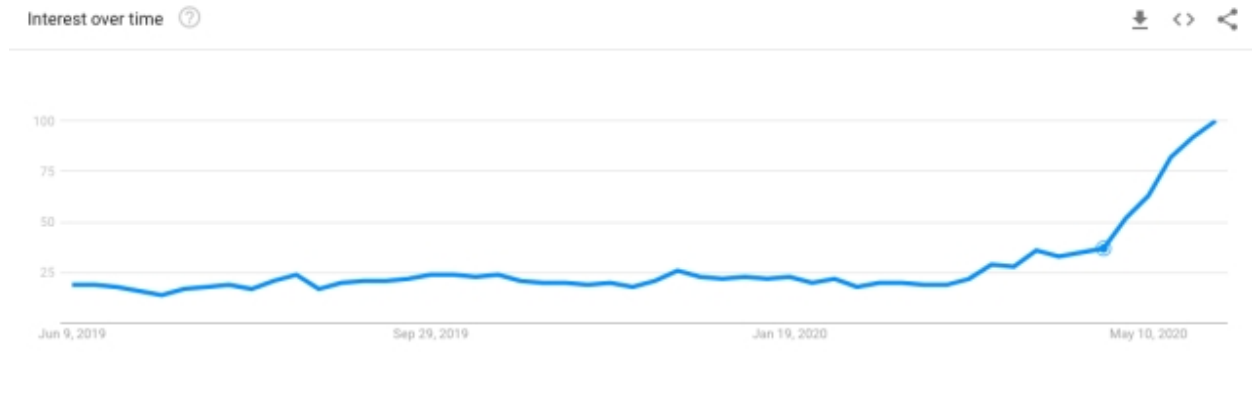
### **1. Demand overview**

COVID-19 accelerated the demand which was created by a sense of personal hygiene. Due to lockdown, the house-work had to be done all alone which led to much increase in demand of dishwashers. So the primary option of hiring a domestic help was gone because of the social distancing norms. This increased the burden on the household and people's dislike for washing dishes, led to increased demand for dishwashers.

The demands went so high that:

- BSH Household Appliances went out of stock and are importing 30k units from Turkey. The company met its monthly target in week.<sup>[4]</sup>
- 400-500% increase in demand was noted in LG Company.
- Bosch distributor, says, "Dishwasher sales have seen a healthy increase. While we sold around 20 dishwashers monthly before the lockdown, the quantity has doubled to more than 40 post the lockdown."<sup>[5]</sup>

**Graph given below depicts take off in dishwashers' sales in India**



*Figure 2 Reference :*

<https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.afags.com%2Fnews%2Fmktg%2Fwill-dishwasher-sales-finally-take-off-in-india&psig=AOvVaw0oWED9K-CH2dH->

## 2. WTP

Dishwasher has become a necessity for many as the house-work is to be done by self. There was also a shortage of goods but the demand was rising. In such a scenario, the WTP will be high and so the consumer surplus must be positive.

## 3. Elasticity

Dishwashers became a necessity good for a lot of people which led to a drastic increase in demand as explained above. We could deduce that the demand became inelastic.

## Overview of Indian Market

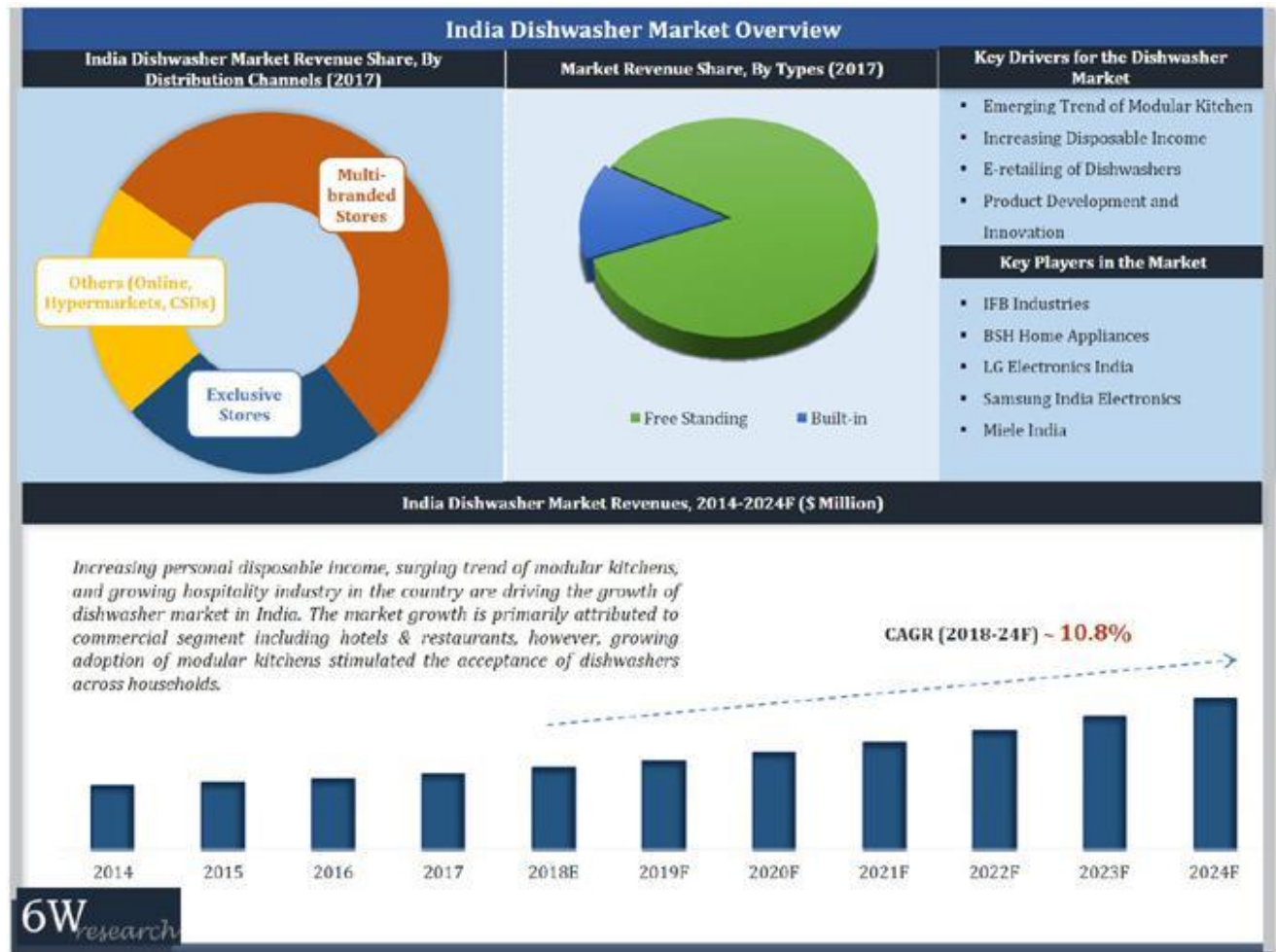


Figure 3 Reference: <https://www.openpr.com/news/1762134/india-dishwasher-market-2018-2024.html>

## Supply

### Before lockdown

#### 1. Supply Overview

As we can see that before lockdown supply was normally less than other luxury goods like Air conditioners and washing machines. But there were around 50,000 average amount of units sold

every year in India and some good imports are done from various countries as we can see below in bar graph

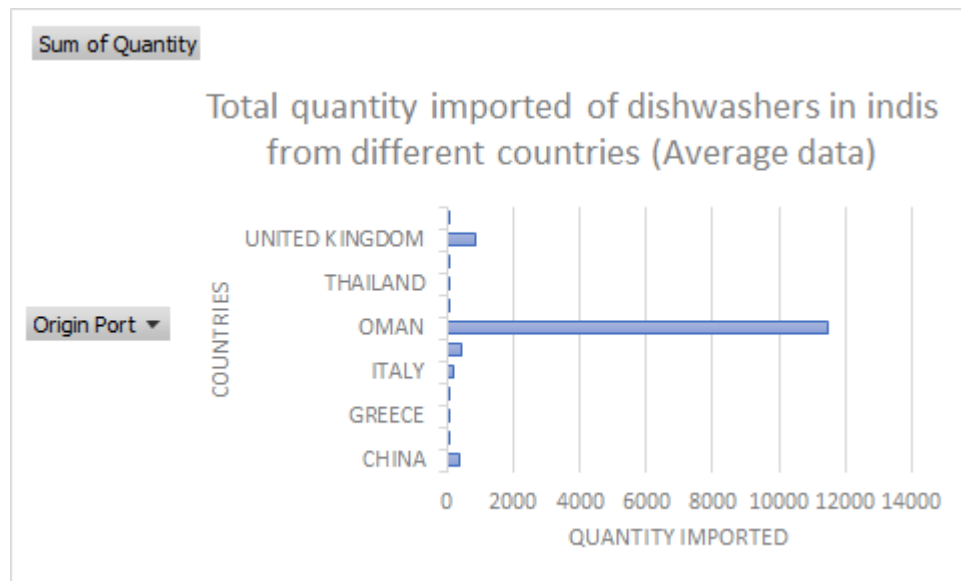


Figure 4 Reference: <https://connect2india.com/global/Dishwasher-import-to-india/1>

## 2. Elasticity of Supply

The demand of dishwashers was less, due to which there were sufficient stocks available and hence the supply was elastic.

## During and After Lockdown

### 1. Supply Overview

During the lockdown government had shut down production and import/export focusing on hygiene and health so there were very little amount of units' left and no new supply had arrived for a few months of lockdown. Due to this demand for Dishwashers increased a lot more than last year. Dishwasher brands like Voltas Beko, BSH Home, LG were seeing a surge in demand

for their products compared to last year. In March 2020 Dishwasher sales of LG increased 400-500 percent up from the last year. And all social media and online shopping services faced depletion in stock of dishwashers. In metro cities large brands were able to sell around 3000 units of dishwashers post lockdown which was double of Diwali sales. We can say that this is the condition of shortage that people are facing. [\[6\]](#)

According to industry sources, Companies expect that if current demand continues till end of 2020 then almost 100000 dishwashers would be sold in a year which would be 100 percent growth over the previous year. [\[7\]](#)

## 2. Elasticity of Supply

The demand of dishwashers was high, due to which there was shortage in stocks and hence supply was inelastic.

### **Raw Materials and Taxes**

The raw materials for dishwasher are steel and plastic [\[8\]](#). Both experienced a dip in demand during lockdown [\[9\]](#). According to law of demand, their prices would either decrease or stay the same. This makes it easy for dishwasher brands to manufacture more to meet the increasing demand.

Dishwasher, being a luxury good, falls under the fourth slab of GST and hence attracts 28% tax on it. [\[10\]](#)



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