

# **Lab Record: Studying the relation between price and demand for a product.**

## **Aim**

The aim of this experiment is to investigate the relationship between the price of a product and the corresponding demand for that product. Specifically, we seek to determine how changes in price influence the quantity of the product consumers are willing to purchase.

## **Theory**

The fundamental principle governing this experiment is the law of demand, which states that, all other factors being equal, as the price of a good or service increases, consumer demand for that good or service will decrease, and vice versa. This inverse relationship arises because consumers typically have limited budgets and will choose to purchase less of a product if its price rises, opting for cheaper alternatives or foregoing the purchase altogether. The magnitude of this effect is captured by the price elasticity of demand, which measures the responsiveness of quantity demanded to a change in price. Factors influencing price elasticity include the availability of substitutes, the necessity of the product, and the proportion of a consumer's income spent on the product. Understanding the relationship between price and demand is crucial for businesses to make informed decisions about pricing strategies, production levels, and overall profitability. Market equilibrium is achieved when the quantity demanded equals the quantity supplied, determining the market-clearing price.

## **Procedure**

1. Define the product for which the price-demand relationship will be studied. 2. Establish a range of prices for the product, from a high price to a low price. 3. For each price point, simulate or measure the demand for the product. This can be done through surveys, market simulations, or by analyzing historical sales data. 4. Record the price and corresponding demand for each price point. 5. Plot the data points on a graph with price on one axis and demand on the other. 6. Analyze the resulting graph to determine the relationship between price and demand.

## **Result**

The experiment revealed an inverse relationship between price and demand, as expected. As the price decreased, the demand for the product increased, demonstrating the law of demand.

Studying the relation between price and demand for a product. - Readings

