DEMAND ANALYSIS

WHAT IS DEMAND ?

- Demand refers to the quantities of goods that consumers are willing and able to purchase at various prices during a given period of time. For your demand to be meaningful in the marketplace you must be able to make a purchase; that is, you must have enough money to make the purchase. There are, no doubt, many items for which you have a willingness to purchase, but you may not have an effective demand for them because you don't have the money to actually make the purchase.

- For example, you might like to have a 3600 square foot flat in Kochi, an equally large beach house in Goa, and a private jet to travel between these places on weekends and between semesters. But it is likely that you have a budget constraint that prevents you from having these items.

- For demand to be effective, a consumer must also be willing to make the purchase. There are many products that you could afford (that is, you have the ability to buy them), but for which you may not be willing to spend your income.

- Each of us has a unique perspective on our own personal satisfaction and the things that may enhance that satisfaction. The important point is that if you do not expect the consumption of something to bring you added satisfaction, you will not be willing to purchase that good or service. Therefore, you do not have a demand for such things despite the fact that you might be able to afford them.

- When we discuss demand, we are always referring to purchases made during a given period of time. For example, you might have a weekly demand for soft drinks. If you are willing and able to buy four soft drinks at a price of Rs 5.00 each, your demand is four soft drinks a week. But your demand for shoes may be better described on a yearly basis

- So that, at an average price of Rs. 800.00 a pair, you might buy three pairs of shoes per year. The important point here is that when we refers to a person's demand for a product, we usually mean the demand over some appropriate time period, not necessarily over the rest of the person's life.

- Think about the last time you spent money. It could have been spent on a car, a computer, a new tennis racquet, or a ticket to a movie, among literally thousands of other things. No matter what you purchased, you decided to buy something because it would please you. You are not forced to make purchases. You do so because you expect them to increase your personal satisfaction.

- If these things give us satisfaction, we say that they have value to us. Used in this way, value implies value in use. Air has a value in use, because we benefit from breathing air. But air is free. If air has value to us, why is it free? We certainly would be willing to pay for air rather than do without it. But air is

available in such abundance that we treat it as a free good. We also get satisfaction from using petrol. Petrol has value is use. But unlike air, we must pay for the petrol we use. That is, petrol has value in exchange as well as value in use. We are willing to exchange something-usually money-for the use of some petrol

Why is air free, but petrol is costly?

One important reason is that petrol is scarce, whereas air is abundant. This should start making you think about the role that scarcity plays in the economy. But be careful as you do so. Just because something is scarce does not necessarily mean it will have value in exchange. Another reason that something may not have value in exchange is because it has no value in use. That is, people just do not get any satisfaction from possessing or using it

- We all have a limited amount of money that we can exchange for goods and services. The limit varies from individual to individual. For example, a school teacher typically has far less money to spend than a successful investment banker. An unskilled labourer has less money to exchange for goods and services than a skilled labourer.

- However, we all (even the richest among us) have a limited amount of money for buying things that can bring us satisfaction. As a result, we all make decisions about how we will spend, save, and/ or borrow money. This implies that how we choose to allocate our money is an important factor in determining the demand for various goods and services in the economy.

The Demand Function

The demand function sets out the variables, which are believed to have an influence on the demand for a particular product. The demand for different products may be determined by a range of factors, which are not always the same for each of them. The presentation in this section is of a generic demand function which includes some of the most common variables that affect demand. For any individual product, however, some of these may not apply. Thus, any attempt by the firm to predict demand for a product on the basis of the demand function will require some initial knowledge, or at least informed guesswork, about the likely influences on it.

Generally,
The demand function can be written as:
$Qd = I$ (Po, Pc, Ps, Yd, T, A, CR, R, E, N, 0).

Po, Pc and Ps — Price related variables

The first three variables in the function relate to price. They are the own price of the product (P_o), the price of complements (P_c) and the price of substitutes (P_s) respectively. In the case of the own price of a good, the expected relationship would be, the higher the price the lower the demand, and the lower the price the higher the demand.

This is the law of demand which is explained in greater detail in the next section. In the case of complements, if the price of complementary goods increases, we would expect demand to fall both for it and for the good that it is complementary to. This is the case as fewer people would now wish to buy either good given that the complementary good is now more expensive and this has the effect of reducing demand for the other good as well

In contrast, if the price of a substitute good rises, then demand for the good that it is a substitute for would be expected to rise as people switched to buying the latter rather than its more expensive substitute. Complements and substitutes are also explained in detail later on.

Yd-Disposable Income

The fourth variable in the demand function, Yd stands for disposable income, that is the amount of money available to people to spend. The greater the level of disposable income. The more people can afford to buy and hence the higher the level of demand for most products will be. This assumes of course that they are 'normal' goods, purchases of which increase with rising levels of income, as opposed to 'inferior 'goods that are purchased less frequently as income rises.

The use of disposable income rather than just income is justified on the grounds that people do not have total control over their gross incomes. There will, for example be deductions to be made in the form of taxes. Thus the level of disposable income can change over time, for example changes in tax rates.

T-Taste

The effect of changes in disposable income on the demand for individual products will of course be determined by the ways in which it is spent. This is where the fifth variable, tastes (T), needs to be taken into account. Over a period of time, tastes may change significantly, but this may incorporate a wide range of factors. For example, in case of food, greater availability of alternatives may have a significant effect in changing the national diet.

Thus, in India for instance, the demand for bajra has fallen over the past 10 years as people have switched to eating rice and wheat instead. Social pressures may also act to alter tastes and hence demand. For example, tobacco companies have been forced to seek new markets as smoking has become less socially acceptable, thus reducing demand in these

areas. Changes in technology may also have an impact. For example, as the demand for colour televisions increased, the demand for black and white televisions fell as tastes changed and the latter were deemed to be inferior goods. Thus there are a number of ways in which tastes may change overtime

A-Level of Advertising

The next set of variables, the A variable, relates to levels of advertising, representing the level of own product advertising, the advertising of substitutes and the advertising of complements respectively. The relationships here are as follows. In general, the higher the level of own advertising for a good, the higher the demand for that good would be expected, other things being constant.

Likewise,thehigherthelevelofadvertisingofacomplimentarygood,the higher the demand for it and the good(s) which it is complementary to will be, given their symbiotic relationship. Conversely, however, the higher the level of advertising of a substitute good, the lower the demand for the good for which it is an alternative and people buy more heavily promoted good.

Theoveralleffectofadvertisingwilldependontheextenttowhicheachoftheseforms of advertising is used at any given point of time as they may, at least in part, cancel each other out. This is something the firm will also need to know in order to determine its optimal advertising strategy.

CR and R-Credit and Rate of interest

The variables CR and R are also related. The former represents the availability of credit while the latter represents the rate of interest, that is the price of credit. These variables will be most important for purchases of consumer durable goods, for example cars. Someone's ability to buy a car will depend on his or her ability to raise money to pay for it.

This means that the easier credit is to obtain, the more likely they are to be able to make the purchase. At the same time credit must be affordable, that is the rate of interest must be such that they have the money to pay. These two variables have traditionally been regarded as exogenous to the firm that is, they cannot be 'controlled' by it. In recent years, however, major car manufacturers have increasingly sought to bring them under the control through the provision of finance packages.

E-Expectations

The letter E in the demand function stands for expectations. This may include expectations about price and income changes. For example, if consumers expect the price of a good to rise in future then they may well bring forward their purchases of it in order to avoid paying the higher price.

This creates an increase in demand in the short term, but over the medium term, demand may fall in response to the higher price charged. The firm will need to adjust its production accordingly.

An example of this might be when increased taxes are expected to be levied on particular goods, for example an increase in excise duties on alcohol or cigarettes, as is usually the case after the Central Budget. Consumers of these products may buy more of them prior to the implementation of the duty increases in order to avoid paying the higher prices arising from the higher level of duties. Alternatively, expectations about incomes may be important.

For example, people who expect their incomes to rise may buy more goods, whereas those who expect their incomes to fall will buy less. At the level of the individual consumer this may not be significant but when aggregated across a country's population it can be. Thus during a boom in the economy the additional expected purchasing power of consumers will lead to increases in demand for a significant number of products. Conversely, the expectation that incomes will fall, perhaps as a
result of redundancy during a recession, will reduce demand as consumers become more cautions.

N-Number of Potential Customers

The variable N stands for the number of potential customers. Each product is likely to have a target market, the size of which will vary. The number of potential customers may be a function of age or location. For example, the number and type of toys sold in a particular country will be related to its demographic spread, in this case the number of children within it and their ages

O-Other Miscellaneous Factors

Finally, we come to O which represents any other miscellaneous factors which may influence the demand for a particular product. For example, it could be used to represent seasonal changes in demand for a particular product if demand is subject to such fluctuations rather than spread evenly throughout the year.

Examples of such products might include things such as umbrellas, ice creams and holidays. In sum, this is a 'catch all' variable which can be used to represent anything else which the decision maker believes to have an effect on the demand for a particular product.

Thus each product will have its own particular demand function depending on which of the above variables influence the demand for it. The ways in which the level of demand can be estimated on the basis of this demand function will be discussed later.

THE LAW OF DEMAND

For most goods, consumers are willing to purchase more units at a lower price than at a higher price. The inverse relationship between price and the quantity consumers will buy is so widely observed that it is called the law of demand. The law of demand is the rule that people will buy more at lower prices than at higher prices if all other factors are constant. This idea of the law of demand seems to be a pretty logical and accurate description of the behaviour we would all expect to observe and for now, this will suffice.

- The law of demand states that consumers are willing or able to purchase more units of a good or service at lower prices than at higher prices, other things being equal

- Have you ever thought about why the law of demand is true for nearly all goods and services? Two influences, known as the income effect and the in explaining the negative substitution effect, are particularly important slope of demand functions

- The income effect is the influence of a change in a product's price on real income, or purchasing power. If the price of something that we buy goes down, our income will go farther and we can purchase more goods and services (including the goods for which price has fallen) with a given level of money income.

- The substitution effect is the influence of a reduction in a product's price on quantity demanded such that consumers are likely to substitute that good for others that have thus become relatively more expensive.
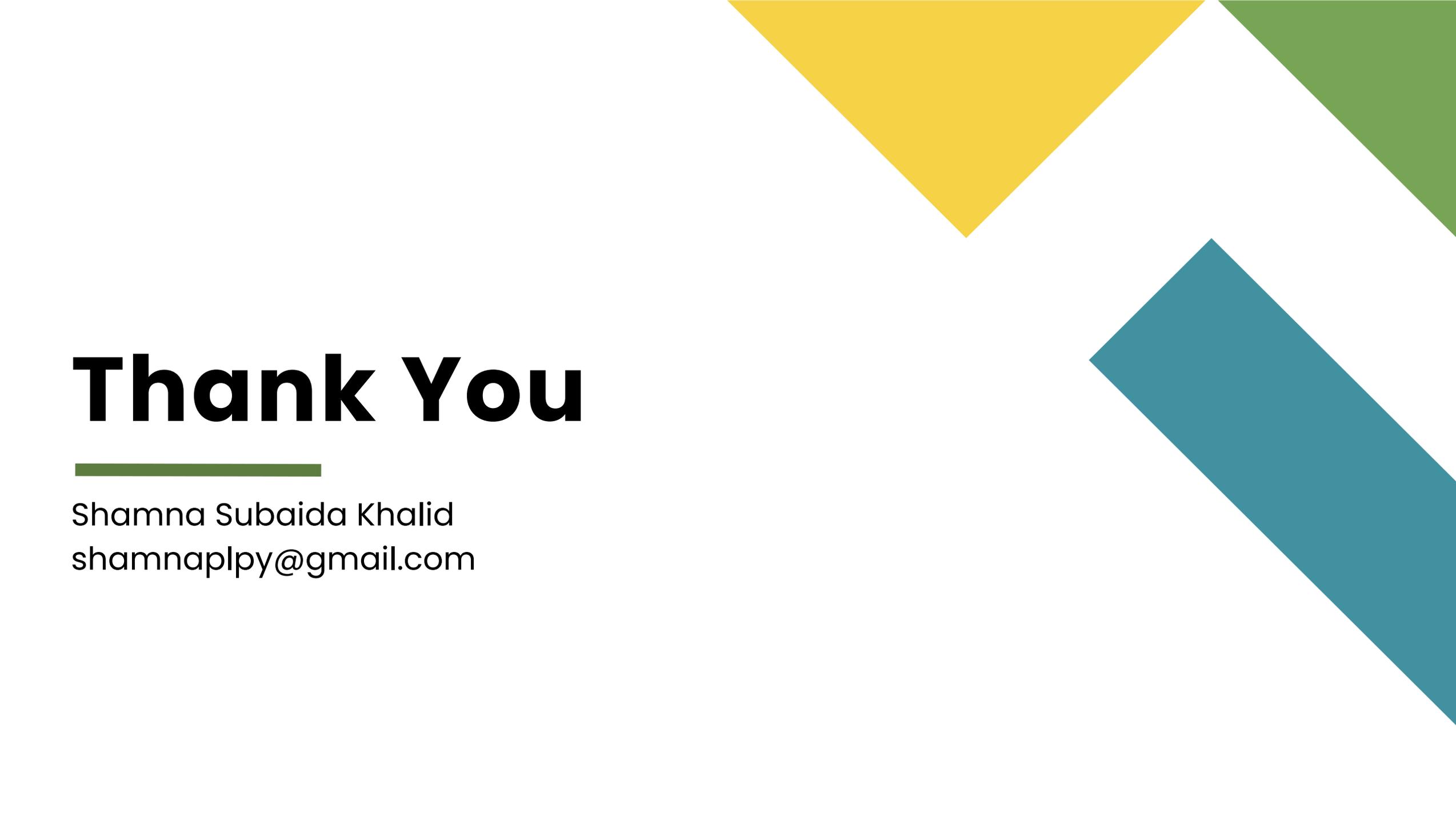
Thank You

Shamna Subaida Khalid
shamnaplpy@gmail.com