CHAPTER- IV
CONCEPTUAL FRAMEWORK OF SHOPPING
PATTERN OF DURABLE PRODUCTS AND PREFERENCE

This chapter presents a conceptual framework of shopping pattern, preferences of different consumers. Various Consumer models are also discussed in length to portray consumer choice and decision making. It is comprised into three descriptive heads viz:

4.1 SHOPPING PATTERN MODELS.
4.2 PREFERENCE MODELS.
4.3 PROFILE OF COIMBATORE DISTRICT.

4.1 SHOPPING PATTERN MODELS

Consumer behaviour is a multistage process in which actual buying comes at a much later stage. It becomes crucial for the marketer to understand the initial stages so that they are able to predict the buying stage. This makes the study of consumer behaviour models almost mandatory. Consumer behaviour models serve two distinct functions:

i) They explain the factors that affect purchase of a particular type of goods and services.

ii) They allow future predictions to be made and are able to assess the likely outcomes of various marketing strategies.

In order to perform the above mentioned functions, the consumer behaviour model must be relevant (must be as much as possible nearer to the real market situation), comprehensive (they should not be vague and poorly constructed) and valid (the outcomes predicted by the model should be testable and verifiable). If these qualities are maintained in the model, then models become not only useful tools but essential tools for the marketer.

4.1.1 INPUT, PROCESS AND OUTPUT MODEL (IPO)

This is a simple model of consumer behaviour, in which the input for the customer is the firm’s marketing effort (the product, price, promotion and place) and the social environment. The social environment consists of the family, reference, groups, culture,
social class, etc., which influence the decision making process. Both these factors together constitute the input in the mind of the consumer (Figure No.4.1).

1. **Need Recognition**

   When one is aware of a want, tension is created and one chooses a product to satisfy his needs. There is also a possibility that a person may be aware of a product before its need is recognized. This is indicated by the arrows going both ways from the need to the product and vice-versa.

2. **Product Awareness**

   This can be had from advertisement or exposure to different types of media or by the social circle. The awareness and the need lead to the building of interest. In some cases, the interest may also breakdown and the decision process also stops or may be postponed for the time being.

3. **Evaluation and Intention**

   Evaluation consists of getting more information about the product and comparing and contrasting it with other products. This can be done theoretically or by taking a trial. Once the evaluation is completed, the consumer interest may either buildup his intentions to buy, or he may lose interest and the decision process may again stop or be postponed.

4. **Intention**

   Once there is intention to purchase the product, the consumer goes ahead and acts or purchases the product. Once the product is purchased, it is used to fulfill the need and the more the product is used, the more the consumer becomes aware of the positive and negative points of the product.

5. **Post-Purchase Behaviour**

   After the purchase and use of the product, the customer is satisfied, he/she is happy and goes in for repeat purchases or recommends the same to his/her friends and acquaintance. When the consumer is dissatisfied, he/she discontinues further purchase of the product and builds a negative attitude towards it, which may be harmful and loss of costs to the company.
The post-purchase behaviour is very important for the marketer and the company because it leads to proper feedback for improvement and maintaining the quality and features as desired by the purchaser. If the customer is very happy with the purchase, it forms a good impression about the product and the company.
4.1.2. BLACK BOX MODEL

It is also called stimulus response model. Consumer’s mind and thought processing is treated like a ‘Black Box’ which cannot be opened to find out how it is working. The model highlights the input stimulus like a promotional advertisement and the resultant output, the purchase behaviour as shown is Figure No. 4.2.

**FIGURE NO: 4.2**
**BLACK BOX MODEL**

![Diagram of Black Box Model](source: S.L.Gupta and Sumitra Pal, Consumer Behaviour Sultan Sons, Delhi, P. 256)

Black box model, although does not go on to describe as how purchase behaviour is formed, mentions personality, motivation, attitude and learning process as the factors standing between the input stimulus and the output behaviour.

4.1.3 HOWARD – SHETH MODEL

A simplified version of the basic Howard–Sheth model is shown in Figure No. 4.3. The model consists of four major sets of variables 1) Inputs 2) Perceptual and learning constructs 3) Outputs and 4) Exogenous variables.
**FIGURE NO.4.3**
HOWARD-SHETH MODEL

(1) Inputs

The input variables consist of three distinct types of stimuli (information sources) in the consumer’s environment. Physical brand characteristics, verbal product characteristics, which are furnished by the marketer in the form of product or brand information and the third type stimulus is provided by the consumer’s social environment.

(2) Perceptual and Learning Constructs

The central component of the Howard – Sheth model consists of psychological variables that are assumed to operate when the consumer is contemplating a decision.

These constructs are treated as obstructions and are not operationally defined or directly measured. Some of the variables are perceptual in nature and are concerned with how the consumer receives and processes information acquired from the input stimuli and other parts of the model.

(3) Outputs

The model indicates a series of outputs that correspond in name to some of the perceptual and learning construct variables (attention, brand comprehension, attitudes, intention etc) in addition to the actual purchase.

(4) Exogenous Variables

External variables are not directly part of the decision making process and are not shown in the model presented here. Relevant external variables include the importance of the purchase, consumer personality traits, time pressure and financial status.

4.1.4. NICOSIA MODEL

It is an elaborate computer flow chart of the consumer decision-making process (See Figure No.4.4). It is divided into four major fields they are:

1. The consumers attitude based on message exposure
2. The consumers product search and evaluation
3. The act of purchase
4. The feed back in the form of consumer experience to both the firm and the consumer.
(i). Consumers Attitude based on the Firm’s Messages

The firms marketing environment and communication efforts affect the consumer attitudes, such as product attributes, competitive environment characteristics of relevant mass media, the choice of copy appeal and characteristics of the target market. It specifies various consumer characteristics that mediate reception of the firm’s promotional messages. The output is an attitude towards the product based on consumer’s interpretation of the message.

**FIGURE NO.4.4**

**FLOW CHART OF THE NICOSIA MODEL OF CONSUMER DECISION PROCESS**


(ii) Search and Evaluation

It deals with the search for relevant information and evaluation of the firm’s brand in comparison with alternative brands. The output of this stage is motivation to purchase the firm’s brand.
(iii) The Act of Purchase

The consumer’s motivation towards the firm’s brand results in purchase of the brand from a specific retailer.

(iv) Feed back

Two important types of feedback are obtained from the purchase experience. One, to the firm in the form of sales data and the other, to the consumer in the form of experience i.e., satisfaction or dissatisfaction. The consumer experience with the product affects the individual’s attitudes and pre-disposition concerning future messages from the firm.

4.1.5. ENGEL - KOLLAT – BLACKWELL MODEL

This model of consumer behaviour consists of four sections (Figure No. 4.5)

1. Decision process stages
2. Information inputs
3. Information processing
4. Variables influencing the decision process

1. Decision Process Stages

The central focus of the model is on five basic decision process stages, viz., problem recognition, search, alternative evaluation, purchase and outcomes. The number of stages in a specific purchase decision and the relative amount of attention given to each stage, are functions of how extensive the problem solving tasks are felt to be.

2. Information Input

Information from the marketing and marketing sources feeds into the information processing section of the model. After passing through the consumers memory, which serves as a filter, the information has its initial influence at the problem recognition stage of the decision making process. Search for external information is activated, if additional information is required in order to arrive at a choice, or if the consumer experiences dissonance because the selected alternative is less satisfactory than expected.
FIGURE NO.4.5
ENGEL – KOLLAT – BLACKWELL MODEL

3. Information processing

This section of the model consists of the consumer’s exposure, attention, comprehension, perception, yielding, acceptance, and retention of incoming marketer–dominated and non-marketing information. Before a message can be used, the consumer must first be exposed to it. He must be able to allocate information–processing capacity to it, interpret the stimulus, be persuaded by it, and retain the message by transferring the input to long term memory. In order to be retained in long term memory as information and experience, the message must pass through both sensory memory—which analyses the input in terms of physical properties and short term memory where the message is analysed for meaning.

4. Variables Influencing the Decision Process

The model consists of individual and environmental influences that affect all five stages of the decision process. Individual characteristics include motives, values, lifestyle and personality. Social influences are culture, reference groups and family. Situational influences, such as a consumer’s financial condition, also influence the decision process.

4.2 CONSUMER PREFERENCES

The underlying foundation of demand, therefore, is a model of how consumers behave. The individual consumer has a set of preferences and values whose determination is outside the realm of economics. They are no doubt dependent upon culture, education, and individual tastes, among a plethora of other factors. The measure of these values in this model for particular goods is in terms of the real opportunity cost to the consumer who purchases and consumes the goods. If an individual purchases particular goods, then the opportunity cost of that purchase is the forgone goods the consumer could have bought instead.

To develop a model in which a map or graphically derive consumer preferences. These are measured in terms of the level of satisfaction the consumer obtains from consuming various combinations or bundles of goods. The consumer’s objective is to choose the bundle of goods which provides the greatest level of satisfaction as they the consumer define it. But consumers are very much constrained in their choices. These
constraints are defined by the consumer’s income, and the prices the consumer pays for the goods.

It will formally present the model of consumer choice. As it goes along, it will establish a vocabulary in order to explain the model. Development of the model will be in three stages. After a formal statement of the consumer’s objectives, it will map the consumer’s preferences. Secondly, it presents the consumer’s budget constraint; and lastly, combines the two in order to examine the consumer’s choices of goods.

THE THEORY OF THE CONSUMER

Consumer makes decisions by allocating their scarce income across all possible goods in order to obtain the greatest satisfaction. Formally, consumers maximize their utility subject to budget constraint. Utility is defined as the satisfaction that a consumer derives from the consumption of goods. As noted above, utilities determinants are decided by a host of non-economic factors. Consumer value is measured in terms of the relative utilities between goods. These reflect the consumer’s preferences.

Theory of Consumer Preferences

Consumer preferences are defined as the subjective (individual) tastes, as measured by utility, of various bundles of goods. They permit the consumer to rank these bundles of goods according to the levels of utility they give the consumer. Note that preferences are independent of income and prices. Ability to purchase goods does not determine a consumer’s likes or dislikes. One can have a preference for Porsches over Fords but only have the financial means to drive a Ford.

These preferences can be modeled and mapped through the use of indifference curves. In order to graphically portray consumer preferences, need to define some terms. First, since we will be working in two dimensions (2-d graphs), we assume a two goods world. These could be any two goods. One common treatment is to define one goods, say food, and let the other goods be a composite of all other goods. For expository simplicity (making things easier for me), lets define the two goods as Goods X and Goods Y. The
axes of the graph then measure amounts of Goods X on the horizontal, and amounts of Goods Y on the vertical. Each point in this Cartesian space then defines some combination of goods X and Y. The combinations are called commodity bundles.

The goal of the theory of preferences is for the consumer to be able to rank these commodity bundles according to the amount of utility obtained from them. In other words, the consumer has different preferences over the different combinations of goods defined by the set of commodity bundles.

In order to develop a model, it needs to make some assumptions about the consumer’s preferences. There are four assumptions. The first is decisiveness. Here, given any two commodity bundles in commodity space, the consumer must be able to rank them. In Figure 1, suppose we randomly chose two commodity bundles A and B. This assumption means that the consumer must be able to say that they prefer commodity bundle A over B, or B over A, or that bundles A and B provide the same level of utility.
The second assumption is consistency. The consumer must be consistent in preference and rankings. Again referring to Figure 1, suppose we now include bundle C. Let the consumer prefer commodity bundle A over B, and also commodity bundle B over C. Then by this assumption the consumer must prefer A over C.

The following two assumptions are not required to develop the theory of the consumer, but simplify matters significantly.

The third assumption is non-satiation. In other words, more is always better than less. More formally, any commodity bundle with at least as much of one good and more of the other must be preferred. Commodity bundle A in Figure 1 has two straight lines running through it. This creates four quadrants, to the northeast, southeast, southwest and northwest of bundle A. All commodity bundles to the northeast of A contain more of both X and Y than does A. Therefore, by the assumption of non-satiation, any bundle in this quadrant is preferred to A. The opposite is true for bundles to the southwest of A. They contain less X and Y than does A, hence must be less preferred. The quadrants to the southeast and northwest contain more of one good but less of the other; hence we cannot determine preference rankings with respect to A.

The last of the assumptions is convexity, which is the most difficult to explain. It is based on the notion that as a consumer consumes more and more of a particular good, the additional utility obtained decreases. We define marginal utility as the change in utility due to an incremental increase in the consumption of a given good. Convexity says that marginal utility declines as consumption increases. Note that the total utility continues to increase if marginal utility is positive (which must be for non-satiation to hold), but total utility increases at a decreasing rate if marginal utility is declining.

An indifference curve is a collection of all commodity bundles which provide the consumer with the same level of utility. The indifference curve is so named because the consumer would be indifferent between choosing any one of these commodity bundles. In Figure 1 the curved line which passes through commodity bundle A represents an indifference curve. All the commodity bundles on U0 provide the same utility as does bundle A.
Any commodity bundle above the U0 indifference curve must be preferred to any commodity bundle on U0. Conversely, any commodity bundle on U0 must be preferred to any bundle below it. The choice of commodity bundle A to derive U0 was completely arbitrary. It could have been any other commodity bundle. This means that each commodity bundle has an indifference curve running through it.

Figure 2 shows a family of three indifference curves. An indifference curve represents a greater level of utility as we move further to the northeast from the origin. Why? (The student should examine the consumer preference assumptions for the answer.) Therefore indifference curve U2 has a higher utility level than U1 which has a higher utility level than U0.

Note that indifference curves are negatively sloped. This is the case because of non-satiation. Indifference curves cannot be upward sloping because the consumer cannot be indifferent between two commodity bundles if one has more of both goods.

The big question is why the indifference curve is bowed inwards. The quick and dirty answer is the assumption of convexity. Recall that convexity results from diminishing marginal utility, i.e., as a consumer consumes more and more of a given good, the
additional unit of that good provides less utility. As we move along an indifference curve from left to right, the consumer is consuming more and more of good X and less and less of good Y. Thus the marginal utility of the additional unit of good X declines whereas the marginal utility of the foregone Y increases. Since by indifference curve’s definition that each commodity bundles provides the same level of utility, the consumer is willing to give up less and less good Y as he or she consumes more and more good X in order to hold utility constant. This tradeoff between goods X and Y along an indifference curve is an important topic. It is called the marginal rate of substitution (MRS).

Figure 3 shows four commodity bundles, A, B, C and D, along an indifference curve. As we move to the right along U1, we are increasing the amount of good X by equal increments of an amount X. The amount of good Y that must be given up as we move from bundle A to bundle B (Y0), from B to C (Y1), and from C to D (Y2) gets smaller and smaller. This is true because the additional utility from the additional increment in good X provides less and less utility, while the additional unit of good Y the consumer is giving up contains more and more utility. This gives rise to the indifference curve bowing inwards.

The marginal rate of substitution reflects the maximum amount of good Y the consumer would be willing to give up in order to obtain an additional unit of X. The
The MRS can be portrayed as the slope of the indifference curve. This would show the amount of good Y given up per unit of X. The slope between points A and B is $Y_0 / X$, between B and C is $Y_1 / X$, and between C and D is $Y_2 / X$. Notice that since Y is declining, the slope is getting flatter and flatter. For very small increases in good X, the slope of the indifference curve becomes the slope of the tangent to it. We generally define MRS as the absolute slope of the tangent to an indifference curve. In Figure 4 the tangent gets flatter and flatter as we move from A to B, B to C and C to D.

To sum up, the slope of the indifference curve represents the value to the consumer of the additional unit of X in terms of the amount of Y they are willing to give up. As we move from left to right along an indifference curve, the slope gets flatter reflecting a decrease in the value of the additional unit of good X.

This theory of the consumer has given us many tools. Indifference curves map or graphically represent consumer preferences. The properties of these indifference curves reflect the four consumer preference assumptions. The slope of an indifference curve, the MRS, reflects the value placed on the additional unit of a good in terms of the other goods.
the consumer would be willing to give up. These concepts will be used extensively in the next few chapters.

**The Budget Constraint**

Using these families of indifference curves, we can model consumer preferences showing how the consumer would rank commodity bundles according to the utility each bundle provides. Having a map of consumer preferences, however, is not enough to explain the choices consumers make. Choices are also a function of our constraints, namely the consumer’s income and the price of goods.

In order to simplify the presentation, we assume that income is exhausted over the consumer purchases. This means we are excluding savings. The budget constraint would then say that income is equal to the sum of consumer expenditures. Expenditures on a particular good is the product of the amount of the good purchased times its price. We can then write the budget constraint as:

$$I = Px*X + Py*Y.$$  

In this equation the consumer has expended all income, $I$, across both goods X and Y, where $Px$ and $Py$ are the prices of X and Y, respectively. To graph this budget constraint into commodity space requires rewriting the budget constraint in terms of good Y, the variable on the vertical axis. Using simple algebra, we can rearrange terms to produce the following budget line:

$$Y = I/Py - Px/Py * X.$$  

In the equation of a line ($Y = mX + b$), the slope is given by $m$, the number multiplied with X, and the Y intercept is given as $b$. Referring to the budget line, its slope is $Px/Py$ and the Y intercept is $I/Py$. Figure 5 illustrates these characteristics of the budget line.
The budget line divides commodity space into two. The commodity bundles which are affordable are shown as being on or below the line. Income is completely spent for those bundles on the line. We exclude the commodity bundles below the budget line since all income is not being spent. The commodity bundles above and to the right of the budget line are beyond the reach of the consumer, given their income and the prices of goods X and Y.

Note the intercepts. The Y intercept represents a commodity bundle that contains only good Y. This is the amount of good Y that the consumer could purchase if they spent their entire income on good Y. The same is true for good X’s intercept. I/Px is the maximum amount of good X that this consumer can purchase, given their income and the two goods’ prices.

The budget line plays two important roles. The first is determined by the level of income. The more income the consumer has to spend the greater number of the commodity bundles that are affordable. An increase in income would be portrayed as a parallel shift outwards of the budget line. It is a parallel shift because we are holding the prices of goods X and Y constant, therefore there would be no change in the line’s slope.
The second role for the budget line is to act as a price line. A price line demonstrates the relative price of two goods. A relative price is the price of one good in terms of another. For example, let \( P_b = \$0.50/\text{banana} \) be the price of bananas, and \( P_o = \$1.00/\text{orange} \) the price of oranges. The relative price of a banana in terms of oranges is \( \frac{1}{2} \) orange. If the consumer buys a banana then they necessarily forgo purchasing one half orange. If we take the ratio of the banana’s price to the price of an orange, we get:

\[
\frac{P_b}{P_o} = \frac{\$0.50/\text{banana}}{\$1.00/\text{orange}} = \frac{1}{2} \text{ orange}.
\]

Thus the slope of the budget line shows the relative price of good X in terms of good Y. If the price of good X increases, then the amount of good Y that is foregone increases. There is an increase in the relative price of good X. Since it holding income and the price of good Y constant, this increase in good X’s price results in a decrease of the budget line’s X intercept. The line swivels inward.

Relative price is an important tool. It shows how much of one good that the consumer must necessarily give up in order to obtain more of another. The flatter the budget line, the less costly the good on the horizontal axis in terms of the good on the vertical axis. The steeper the budget line, the more costly the good. Note that relative price is shown solely as the budget line slope. The distance from the origin does not reflect prices.

**Consumer Choice**

The consumer’s objective is to allocate income between goods X and Y so that they achieve the greatest amount of utility, i.e., to reach the highest indifference curve possible within their budget constraint. They must choose that commodity bundle on their budget line which has the highest level of utility. Utility levels, as we have seen, are measured by indifference curves; therefore the consumer tries to reach the highest feasible indifference curve.
In Figure 6, we examine several possible choices for a consumer. Should they choose commodity bundle B. It is on their budget line and so exhausts income. But does B provide the highest level of utility. The answer is no because there are other affordable commodity bundles within the budget constraint that lie on a higher indifference curve. The commodity bundle which maximizes utility is commodity bundle A. All other feasible commodity bundles lie below A’s indifference curve.

The utility maximizing commodity bundle is determined by the tangency of the indifference curve to the budget line. At the point of tangency, the slope of the indifference curve is equal to the slope of the budget line. In other words, the marginal rate of substitution is equal to the relative price of X in terms of Y. This means that the amount of good Y that the consumer must give up for another unit of good X is equal to the amount they are willing to give up.

Utility Maximization: \( \text{MRS} = \frac{P_x}{P_y} \).

Recall that MRS can be interpreted as the value to the consumer of the additional unit of good X. The relative price of good X represents the consumer’s opportunity cost. Therefore, utility maximization is achieved when the marginal benefit of consuming better X is equal to its marginal cost in terms of Y.
Returning to Figure 6, commodity bundle B is not utility maximizing. Note that the tangent to U0 at B is steeper than the budget line slope. In other words, $\text{MRS}_b > \frac{P_x}{P_y}$. This says that the value to the consumer of the additional unit of X is greater than its costs. Utility rises by consuming more good X at the expense of less Y. This would move the consumer down to the right along the budget line. Utility is again maximized at commodity bundle A.

4.3 PROFILE OF COIMBATORE DISTRICT

4.3.1 History

Coimbatore District formed part of the Kongu country, the history of which dates back to the Sangam age. It is found that in early days the area was inhabited by tribes, the most predominant among them being the Kosars who are reported to have had their headquarters at Kosampathur which probably later became the present Coimbatore. However, tribal predominance did not last long as they were over-run by the Rashtra Kutas. From Rashtrakutas the region fell into the hands of the Cholas who were in prominence at the time of Raja Raja Chola. On the decline of Cholas the Kongu territory was occupied by the Chalukyas and then by the Pandyas and the Hoysalas. Due to internal strife in the Pandyan kingdom the Muslim rulers from Delhi happened to interfere. Thus the area fell into the hands of Madurai Sultanate from whom the Vijayanagar rulers wrestled for the region during 1377-78 after overthrowing the Madurai Sultanate. For a few years the area remained under independent control of Madurai Nayaks.

During the period of Muthu Veerappa Nayak and later during the period of Tirumalai Nayak, internal strife and intermittent wars ruined the kingdom. As a consequence during the period of Tirumalai Nayak, the Kongu region fell into the hands of the Mysore rulers from whom Hyder Ali took over the area. However, consequent on the fall of Tippu Sultan of Mysore in 1799, the Kongu region came to be ceded to the East India Company by the Maharaja of Mysore who was restored to power by the East India Company after defeating Tippu Sultan. From then till 1947 when India attained Independence, the region remained under British control who initiated systematic revenue administration in the area.
To begin with, Coimbatore was in two parts for purposes of revenue administration. In 1804, the areas were merged into one and brought under one District Collector. In 1868, the Nilgiris District was bifurcated from the Coimbatore District. At the opening of the present century there were ten taluks in the district viz., Bhavani, Coimbatore, Dharapuram, Erode, Karur, Kollegal, Palladam, Pollachi, Satyamangalam and Udumalapettai. Avinashi taluk was formed in the year Karur taluk happened to be transferred to Tiruchirappalli district. In 1927, some villages of Bhavani taluk together with a few villages from Salem district were constituted into Mettur Area but very soon i.e. in 1929; this area was transferred to Salem district. Again in the year 1956 considerable area of the district, viz., the whole of Kollegal taluk was transferred to Mysore State as part of the States Re-organisation Scheme. In 1975, Satyamangalam sub-taluk was upgraded as a full fledged taluk. Again in 1979, Perundurai sub-taluk of Erode and Mettupalayam sub-taluk of Avanashi were also upgraded into independent taluks. Thus the total number of taluks in the district came to twelve. This, however, did not last long. In the same year (1979) six taluks were bifurcated from the district to constitute a new district viz., Erode. Under G.O. Ms. No. 1917 Revenue district. 31-8-79, Government of Tamil Nadu, the following six taluks was bifurcated from the then Coimbatore district to form Erode district. Bhavani, Gobichettipalaiyam, Satyamangalam, Erode, Perundurai and Dharapuram. Coimbatore contained nine taluks before bifurcation of Tirupur as a separate District viz. Coimbatore (North), Coimbatore (South), Mettupalayam, Avanashi, Palladam, Tirupur, Pollachi, Udumalpettai and Valparai. As per G.O.Ms. No. 617, 618 Revenue dt 24.10.2008, Government of Tamil Nadu, the four taluks from Coimbatore District (i.e. Tirupur, Udumalpet, Palladam and Avinashi(Part)) and three taluks from Erode districts (i.e.Dharapuram, Kangeyam and Perundurai (Part)) were bifurcated and formed another new District as Tirupur District. Now Coimbatore District has only two revenue divisions of Coimbatore and Pollachi and contains six taluks namely Coimbatore (North), Coimbatore (South), Mettupalayam, Sulur, Pollachi and Valparai. This bifurcation considerably reduced the size of the present Coimbatore district.

At present Coimbatore is administered by the Coimbatore Municipal Corporation which comprises 100 wards, grouped into five zones. It is situated on the banks of the
Noyyal River in Western Tamil Nadu and is surrounded by the Western Ghat on all sides. It is well connected by road, rail and air with major towns and cities in India.

Coimbatore is an important textile and manufacturing hub of Tamil Nadu. Other important industries include software services, education and healthcare. Coimbatore has been ranked 4th among Indian cities in investment climate by a survey done by the Confederation of Indian Industry (CII).

4.3.2 Geography

Coimbatore is situated in the West of Tamil Nadu, bordering the state of Kerala. It is surrounded by the Western Ghats mountain range on the West and North, with reserve forests and the Nilgiris Biosphere Reserve on the northern side. The Noyyal River runs through Coimbatore and forms the southern boundary of the corporation. The city sits amidst Noyyal's basin area and has an extensive tank system fed by the river and rainwater. The eight major tanks / wetland areas of Coimbatore are - Singanallur, Valankulam, Ukkadam Periyakulam, Selvampathy, Narasampathi, Krishnampathi, Selvachinthamani, and Kumaraswami tanks. Sanganur pallam, Kovilmedu pallam, Vilankurichi-Singanallur Pallam, Karperayan Koil pallam, Railway feeder roadside drain, Tiruchy-Singanallur Check drain and Ganapathy pallam are some of the streams that drain the city.

The Eastern side of Coimbatore district, including the city is predominantly dry. The entire western and northern part of the district borders the Western Ghats with the Nilgiris biosphere as well as the Anaimalai and Munnar ranges. A Western pass to Kerala, popularly referred to as the Palghat Gap provides its boundary. Because of its close proximity to the Western Ghats, the district is rich in fauna. The Coimbatore urban wetlands harbour around 116 species of birds. Of these, 66 are resident, 17 are migratory and 33 are local migrants. Spot-billed Pelican, Painted Stork, Open Billed Stork, Ibis, Spot-billed Duck, Teal, Black Winged Stilt are some of the migratory birds that visit Coimbatore wetlands regularly.

Apart from the species common to the plains, wild elephants, wild boars, leopards, tigers, bison, various species of deer, Nilgiri tahr, sloth bear and black-headed Oriole can also be found. The Anaimalai Wildlife Sanctuary 88 km (55 mi) in the Western Ghats at an
altitude of 1,400 meters covers an area of 958 km². Among the regions livestock animals are Kangayam bulls. This breed, which helped the region gain a foothold in the dairy industry, are found only in Coimbatore and neighbouring districts. More than 20 percent of the district is classified as forest, lying in the West and North. The forests here are abundant in commercially significant trees such as teak, sandalwood, rosewood and bamboo. The Nilgiris slope of the Mettupalayam range is rich in sandalwood trees and bamboo. They vary from rich tropical evergreen forests of Punachi range to jungles of shrubs in southern ranges.

4.3.3 Climate

Coimbatore has a pleasant, salubrious climate due to its proximity to thickly forested mountain ranges and the cool breeze blowing through the Palghat gap which makes the consistently hot temperatures more pleasant. Under the Köppen climate classification, the city has a tropical wet and dry climate, with the wet season being from October to December due to the northeast monsoon. Coimbatore is located at an elevation of about 411 meters. The mean maximum and minimum temperatures vary between 35°C (95°F) and 18°C (64°F). highest temperature ever recorded is 41°C (106°F) and lowest is 12°C (54°F).

Due to the presence of the mountain pass, more elevated parts of the district benefit from the south-west monsoon in the months from June to August. After a warm, humid September, the main monsoon starts from October lasting till early November. These monsoons are brought about by the retreating monsoon. The average annual rainfall is around 700 mm with the North East and the South West monsoons contributing to 47% and 28% respectively to the total rainfall.

As per the 2001 census, Coimbatore had a population of 1,250,446 within Municipal Corporation limits. The 2011 census data for post-expansion city limits is not available and only the population of urban agglomeration is available - 2,151,466. In the urban agglomeration, males constitute 50.08 percent of the population and females 49.92 percent. Coimbatore has an average literacy rate of 89.23 percent, higher than the national average of 74.04 percent. Male literacy is 93.17 percent and female literacy is 85.3 percent with 8.9 percent of the population under 6 years of age.
FIGURE NO. 4.6
TAMILANDU – COIMBATORE MAP

Coimbatore District
Taluks

(Map Not to Scale)
Digital Map Source: TWAD Board, Chennai
Web Design: NIC, TNSC
4.3.4 Demographics

The Sex ratio was 964 females per 1000 males. In 2005, the crime rate in the city was 265.9 per 100,000 people, accounting for 1.2 percent of all crimes reported in major cities in India. It ranked 21st among 35 major cities in India in the incidence of crimes. In 2011, the population density in the city was 10,052 per km² (26,035 per mi²).

The native language spoken in the Coimbatore city is mainly Kongu Tamil, a dialect of Tamil language. The city's population is predominantly Hindu, along with a sizable Muslim population. Christians, Sikhs and Jains are also present in small numbers. Coimbatore also has a large number of Malayalis, mainly from Palakkad, Telugus and North Indians, mainly Gujaratis, who are engaged in trade and commerce. During the 1970s the city witnessed a population explosion as a result of migration fueled by increased economic growth and job opportunities. Around 33 percent of the city's population lives in slums.

4.3.5 Economy

With more than 25,000 small, medium and large industries, the city's primary industries are engineering and textiles. Coimbatore is called the "Manchester of South India" due to its extensive textile industry, fed by the surrounding cotton fields. The district also houses the country's largest amount of hosiery and poultry industries. The city has two Special Economic Zones (SEZ), the Coimbatore Hi-Tech Infrastructure (CHIL) SEZ and the Coimbatore TIDEL Park, and at least five more SEZs are in the pipeline. As of 2005, when Tirupur was a part of Coimbatore district, Coimbatore was the highest revenue earning district in Tamil Nadu. In 2010, Coimbatore ranked 15th in the list of most competitive (by business environment) Indian cities.

An insignificant little town prone to droughts and earthquakes till the early years of the 20th century, Coimbatore experienced a textile boom in the 1920s and 1930s. Though, Robert Stanes had established Coimbatore's first textile mills as early as the late 19th century, it was during this period that Coimbatore emerged as a prominent industrial centre. Narayanaswamy Naidu's Dhandayuthapani Foundry, D. Balasundaram Naidu's
Textool, the Lakshmi Machine Works, the Kalleeswara Mills and the Somasundra Mills are some of the important textile and machine units which emerged during the early 1900s.

Coimbatore has trade associations like CODISSIA, COINDIA, SITRA and COJEWEL representing industries in the city. Coimbatore also has a 160,000 square feet (15,000 m²) trade fair ground, built in 1999. It was named COINTEC due to its hosting of INTEC (Small Industries Exhibition). The Trade Fair complex, one of the country's largest, was built in six months, and is owned by CODISSIA (Coimbatore District Small Industries Association). It is also the country's largest pillar-free hall, according to the Limca Book of Records.

Coimbatore houses a large number of small and medium textile mills. It also has central textile research institutes like the Central Institute for Cotton Research (CICR) - Southern Regional station and the Sardar Vallabhai Patel International School of Textiles and Management. The South Indian Textiles Research Association (SITRA) is also based in Coimbatore. The city also houses two of the Centers Of Excellences (COE) for technical textiles proposed by Government of India, namely Meditech, a medical textile research centre based at SITRA, and InduTech based in PSG College of Engineering and Technology. The neighbouring town of Tirupur is home to some of Asia’s largest garment manufacturing companies, exporting hosiery clothes worth more than ₹50,000 million.

The city is the second largest software producer in Tamil Nadu, next only to Chennai. IT and BPO industry in the city has grown greatly with the launch of TIDEL Park and other planned IT parks in and around the city. It is ranked at 17th among the global outsourcing cities. Companies like Tata Consultancy Services, Cognizant Technology Solutions, IBM, Robert Bosch GmbH, Tata Elixsi, Dell, Aditi Technologies, CSS Corp and KGISL having a presence in the city. Coimbatore is already the second largest hub in India for Cognizant Technology Solutions as it employs around 5000 people in its Coimbatore centre and is planning to double its capacity here. Software exports stood at ₹710.66 Crores (7.1 billion) for the financial year 2009-10 up 90% from the previous year.

Coimbatore has a large and a diversified manufacturing sector facilitated by the presence of research institutes like Tamil Nadu Agricultural University, SITRA and large
number of engineering colleges producing about 50,000 engineers. Some of the prominent industries in Coimbatore include L&T, BOSCH, PSG, Sakthi group, Lakshmi Machine Works (LMW), Premier Instruments & Control Limited (PRICOL), Premier Evolvics, Janatics, LGB, Revathi Equipment Ltd, ELGI Equipments, Craftsman Automation Pvt Ltd, Shanthi Gears, Roots Industries. Wind Energy major Suzlon has set up a foundry & machine shop in Coimbatore. Along with it Hansen Transmission, a Belgian Company which manufactures gearboxes for windmills is setting up a plant here with an investment of ₹940 cr.

Manufacturing of automotive components is also important to Coimbatore's economy. Maruti Udyog and Tata Motors source up to 30% of their automotive components from Coimbatore. Some of the auto component makers in Coimbatore include Robert Bosch GmbH, PRICOL and Roots Industries. Coimbatore has more than 700 wet grinder manufacturers with a monthly output of 75,000 units as on March 2005 and is home to a common facility for the manufacturers of wet grinders. Coimbatore’s motor and pump manufacturing industry supplies over 40% of India’s requirements.

Coimbatore is one of the major gold jewellery manufacturing hubs in India, renowned for making cast jewellery and machine made jewellery. The city is home to about 3000 jewellery manufacturing companies and to over 40,000 goldsmiths. The jewellery manufacturers have an active association called Coimbatore Jewellery Manufacturers' Association, and have also jointly established Coimbatore Gem and Jewellery Industries Private Limited (COJEWEL), which is a common facility with niche goldsmith machinery to be used by the members of the association. Several jewellery retail chains like Kirtilals are based in Coimbatore or have their manufacturing base in Coimbatore. Owing to the presence of a large number of jewellery manufacturers and the strong engineering base, the city is home to a number of companies manufacturing jewellery making machinery. The city is also a major diamond cutting centre in South India. For example Kirtilals Jewellers alone have 5 diamond cutting and polishing centres in Coimbatore.

Coimbatore has some of the oldest flour mills in India. The large scale flour mills, which cater to all the southern states, have a combined grinding capacity of more than
50,000 MT per month. The city houses many famous high capacity flour mills like India Roller Flour Mills (which is closed now) and Coimbatore Roller Flour Mills. These flour mills have been around for decades and were in the outskirts of the city at one time. Now they are in the middle of the city owing to increasing urbanization.

In the recent years, the city has seen growth in the hospitality industry. Five star hotels like Taj Surya, Hilton Garden Inn and Le Meridien, four star hotels like Aloft and several three star hotels like Park Plaza, The Residency, CAG Pride and Mangala International have presence in the city.

Coimbatore is the largest non-metro city for e-commerce in South India.

4.3.6 Culture

Coimbatore and its people have a reputation for entrepreneurship. Though it is generally considered a traditional city, Coimbatore is more diverse and cosmopolitan than all other cities in Tamil Nadu except for Chennai. The city conducts its own music festival every year. Art, dance and music concerts are held annually during the months of September and December (Tamil calendar month - Margazhi) at Rajalakshmi Fine Arts. The heavy industrialisation of the city has also resulted in the growth of trade unions. There are numerous temples in and around the city including the Perur Patteeswarar Temple, Konniamman temple, Thandu Mariamman temple, Vazhai Thottathu Ayyan temple, Echanaari Ganesh temple, Karamadai temple, Marudamalai Murugan temple, Panchamuga Anjaneya Temple(Hanuman with 5 Faces) and the Dhyanalinga Yogic Temple. The Mariamman festivals, at the city’s numerous Amman temples, are major events in summer. The mosques on Oppanakara Street and Big Bazaar Street date back to the period of Hyder Ali. Christian missions date back to 1647 when permission was granted by the Nayak rulers to set up a small church in Karumathampatti 12 km (7.5 mi). It was destroyed by Tippu Sultan’s army resulting in a new church in 1804. In 1886, Coimbatore was constituted as a diocese after bifurcating with Pondicherry. Sikh Gurudwaras and Jain Temples are also present in Coimbatore.
4.3.7 Education

Coimbatore is an educational hub of the region. As of 2010, the Coimbatore district is home to 7 universities, 54 engineering colleges, 2 medical colleges, 35 polytechnics Colleges and more than 70 Arts and Science Colleges and a large number of schools. The city has reputed state owned universities like Tamil Nadu Agricultural University (est. 1971), Bharathiyar University (1982), Anna University Coimbatore (2007) and private universities like Avinashilingam University (1987), Amrita University (2003), Karunya University (2004) and Karpagam University (2005). The city also houses research institutes like Central Institute for Cotton Research, Sugarcane Breeding Institute, Institute for Forest Genetics and Tree Breeding, Indian Council for Forestry Research and Education and Tamil Nadu Institute of Urban Studies. There are also plans to establish a "world class" university in the region and to convert the Government Arts College into a unitary type university.

The first college opened in Coimbatore was the Government Arts College (1875-76). The Forest College and Research Institute was opened in 1916. The first engineering college in the city was started by G.D. Naidu as the Arthur Hope College of Technology in 1945. Later it became the Government College of Technology, Coimbatore. PSG College of Technology was established later in 1951. The Air Force Administrative College was established in 1949 to train Indian Air Force personnel. Coimbatore Institute of Technology (CIT) was started in the 1950s. Coimbatore Medical College was opened in 1966 and the Government law college started functioning from 1978. The agricultural school established in 1868 was converted into a full fledged agricultural university (Tamil Nadu Agricultural University) in 1971 and the Sālim Ali Centre for Ornithology and Natural History was opened in 1990. Several private engineering and arts & science colleges were started during the education boom in the 1990s.

In 1867, the first group of students appeared for the SSLC Examinations from Coimbatore. The earliest educational institutions established in the city are C.S.I. Boys High School (1831), St. Michael's Higher Secondary School (1860), Stanes Anglo Indian Higher School (1862), St. Francis Anglo Indian Girls High School (1880), Sarvajana High School (1910) and Suburban Higher Secondary School (1917). Presently there are three
types of schools in Coimbatore - 1) government run schools (corporation schools) 2) schools funded by the government but run by private trusts (aided schools) and 3) schools funded and administered by private trusts. They are classified as Tamil Nadu Anglo Indian School Board, Tamil Nadu State Board, Matriculation and CBSE schools according to the syllabus taught in them. The Coimbatore Education District (not the same as the revenue district) is the unit of administration for education in the city. The literacy rate in the city is 80 percent.

4.3.8 Major city and Suburbs

- Coimbatore - Capital of the district and the second largest city in Tamil Nadu. Major manufacturing and commercial centre in the region, nicknamed 'Manchester of South India'.
- Pollachi - Major agricultural trading centre (in the south of Coimbatore).
- Kinathukadavu - A Suburb of Coimbatore city, which is included by Coimbatore Corporation situated between Coimbatore and Pollachi is famous for Tomato market and Fencing Stones.
- Mettupalayam - Agriculture (arecanut and betel) centre (in the north of Coimbatore).
- Valparai - Famous hill station in the district (in the south of Coimbatore)
- Sirumugai - A town panchayat, rich in Agriculture and textile. It is famous for Kora Silk, SIV industry (rayon) and Temples (in the north of Coimbatore).
- Annur - A Suburb of Coimbatore District, rich in textile industry and agriculture (in the north-east of Coimbatore on the National Highway 209).
- Sulur - A Suburb of Coimbatore District, Sulur is rich in textile industry (in the east of Coimbatore).
- Vellalore - Vellalore is a part of Coimbatore City on north bank of Noyyal. It is rich in agriculture. It was recently merged with the Corporation of Coimbatore.