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SUBJECT- PRINCIPLES OF ECONOMICS

INDIFFERENCE CURVE ANALYSIS-I

* INTRODUCTION

Indifference curve method has been evolved to supersede the marginal utility analysis of demand which was discussed in the next topic. The indifference curve method seeks to derive all rules and laws about consumer's demand that are derivable from the Cardinal utility analysis. At the same time the inventors and supporters of new method contend that their analysis is based on fewer and more reasonable assumptions. The indifference curve analysis has, however, retained some of the assumptions of old marginal utility analysis like price of the goods; market in which these are available; amount of satisfaction derived from the goods. Further, it is assumed that the consumer acts rationally in the sense that, given the prices of goods and the money income, he will choose the combination from among the various possible combinations that gives him maximum satisfaction. Moreover, the assumption of 'Continuity' has also been retained by Hicks-Allen indifference curve method. Continuity assumption means that the consumers are capable of ordering or ranking all conceivable combinations of goods according to the satisfaction they yield.

The fundamental approach of indifference curve analysis is that it has abandoned the concept of cardinal utility and instead has adopted the concept of ordinal utility. According to the supporters of the indifference curves theory, utility is a psychic entity and it cannot therefore be measured in quantitative cardinal terms.

The ordinal utility implies that the consumer is capable of simply 'comparing the different levels of satisfaction'.

For deriving the theory of consumer's behaviour, it is sufficient to assume that the consumer is able to rank his preferences consistently. This means that if the consumer is presented with a number of various combinations of goods, he can order or rank them in a 'scale of preferences'.

The consumer formulates his scale of preferences independently of the market prices of goods keeping in view only the satisfaction which he hopes to get from various combinations of goods. Moreover, the indifference curve analysis assumes that the preference and indifference relations are 'transitive'. It is important to mention that indifference curve analysis of demand is based upon the weak ordering implying that there is possibility of the consumer being indifferent between two combinations.

* Indifference Curve

The basic tool of Hicks-Allen ordinal analysis of demand is the indifference curve which represents all those combinations of goods which give same level of satisfaction to the consumer. Since all the combinations on an indifference curve give equal satisfaction to the consumer, he will be indifferent between them. In schedule 2-1 indifference schedule is given. The schedule shows that consumer gets the same level of satisfaction U_0 whether he takes combination A representing 1 unit of X and 12 units of Y, or combination B with 2 units of X and 3 units of Y or E with 5 units of X and 2 units of Y. Since he gets same level of satisfaction from all these combinations, he will be indifferent between all these combinations.

Table 2.1

Indifference Schedule I

Combination	Good X	Good Y	Amount of Utility
A	1	12	U_0
B	2	8	U_0
C	3	5	U_0
D	4	3	U_0
E	5	2	U_0

In Figure 2.1 an indifference curve IC is drawn by plotting the various combinations of the table 2.1. Indifference schedul I. The quantity of good X is measured on the horizontal axis and the quantity of the good Y is measured on the vertical axis. As in an indifference schedule, combinations lying on an indifference curve will also be equally desirable to the consumer, that is, will give him the same satisfaction. The smoothness and continuity of an indifference curve means that goods in question are assumed to be perfectly divisible.

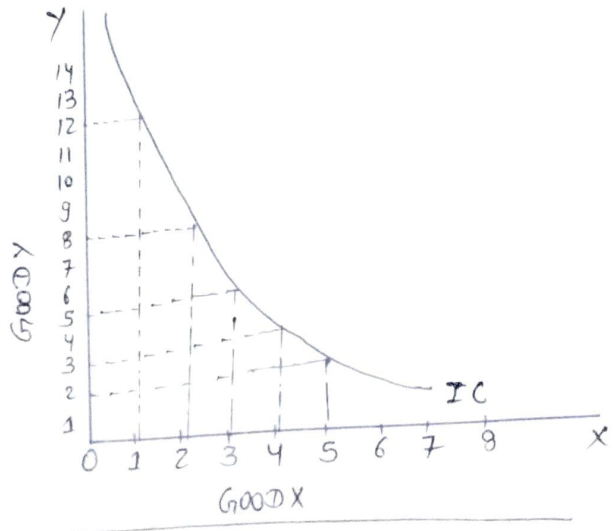

Figure 2.1: Indifference curve

Any combination comprising of more units of at least one good without the lesser quantity of another good will give more satisfaction to the consumer and thus will be preferred. Such combinations of more quantities of two goods are represented by higher Indifference curve. Any combination on a higher indifference curve will be preferred to any combination on a lower

indifference curve. It is thus clear that the indifference curve lying above and to the right of an indifference curve will indicate higher level of satisfaction than the latter.

A complete description of consumer's taste and preferences can be represented by an indifference map which consists of a set of Indifference curves. In Figure 2.2 an Indifference map consisting of five indifference curves has been shown. It is a normal usual to label the indifference curves by ordinal numbers as I, II, III, IV, V as it done in Figure 2.2. An Indifference map portrays consumer's scale of preferences. The indifference map is drawn on the basis of assumption that consumer's taste and preferences remain unchanged.

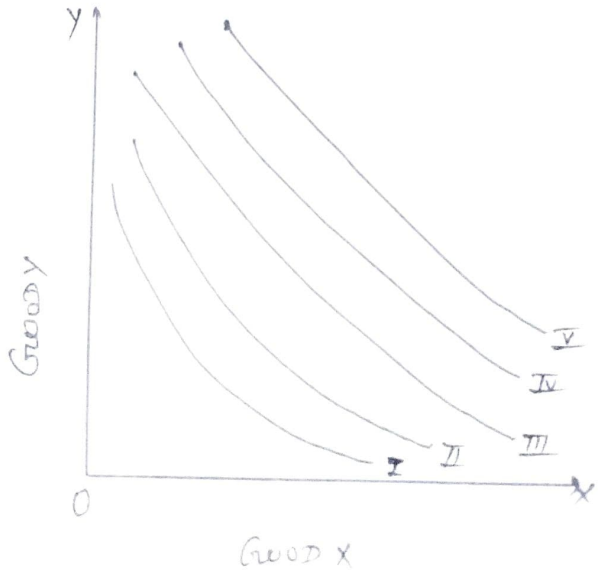

Figure 2.2: Indifference Map