### MICROECONOMICS

#### 3. CONSUMER BEHAVIOUR

**Omar Ameir** 

MVSO >> MORAVIAN BUSINESS COLLEGE OLOMOUC

#### **Objectives of the Presentation:**

- describe the difference between a consumer and a customer
- distinguish between ordinalist and cardinalist ways of measuring utility
- define the different types of goods
- define the basic characteristics of demand



#### **Presentation Outline**

- 1. Theoretical definition of the consumer
- 2. Measuring utility
- **3.** Typology of goods
- 4. Characteristics of demand



**Consumer versus customer...??** 



- We are talking about the demand side of the final production market.
- Consumer:
  - the central figure of the demand side of the market;
  - comes to satisfy his needs through the purchase of products.
- Utility (satisfaction):
  - the effect resulting from the consumption of a product (the subjective feeling of satisfaction resulting from the consumption of a product);
  - indicates the direction of consumer preferences;
  - a rational consumer seeks to maximise his utility.

- Utility and usefulness:
  - Utility = impact/uselfulness = product characteristic (they are continuous variables);
  - Utility influences the consumer's decision on how to spend his income, which is limited (always even for a billionaire);
  - Consumer decides what consumption basket (i.e. combination of goods) to choose - rational choice must satisfy the following rule:
    - completeness of comparison;
    - transitivity;
    - non-saturation (more rather than less);
    - variety.



- Utility and usefulness:
  - The (rational) consumer considers two basic facts when making a decision to purchase a product:
    - the utility derived from the consumption of the product;
    - the expenditure required to acquire the desired product:
      - the necessary expenditure is given by their market prices;
      - it is important to recognise which costs to take into account and which not to;
    - there are usually multiple opportunities (multiple consumption baskets) for the consumer to choose between.

- Utility and usefulness:
  - From the perspective of the cost of purchasing products (consumer basket), we distinguish two types of such expenditure (costs) of the consumer:
    - sunk costs costs that the consumer cannot save, whichever alternative he chooses;
    - opportunity costs the benefits that the consumer sacrifices when he chooses one alternative over another.

- Utility as a subjective variable:
  - Each individual's needs have different:
    - directions;
    - intensities (degree of satisfaction);
    - hierarchy (according to urgency);
  - Reasons: psychological and sociological.
  - There is therefore a subjective character of utility (usefulness).

- There are two approaches to measuring usefulness (and hence utility) based on two views of usefulness:
  - the cardinalist approach:
    - usefulness and utility can be measured;
  - the ordinalist approach:
    - usefulness and utility cannot be measured.



- Cardinalist approach:
  - cardinal = decisive;
  - unit of measurement of utility = the price that a consumer pays for a given product (thus very unstable);
  - total expenditure on the product (total price for the product) = total utility (usefulness):
    - denote by TU;
    - total need satisfaction (sum of need satisfactions);
    - utility increases as the quantity of goods consumed increases;
    - may decrease after reaching a saturation point.

- Cardinalist approach:
  - incremental expenditure on the product = marginal utility:
    - denote by MU;
    - incremental variable;
    - shows the change (usually increase) in total utility by adding a unit of the good consumed;
    - law of diminishing marginal utility: as the volume of the product consumed increases, its marginal utility decreases (total utility increases at a slower rate).

Cardinalist approach:



- As the quantity consumed increases, total consumer utility increases ever more slowly.
- POINT OF SATISFACTION:
  - max TU = MU equal to 0;
  - then total utility decreases and marginal utility is negative.

- Cardinalist approach:
  - defines consumer equilibrium as the equality of marginal utility (MU) and price (P);
  - if the magnitude of marginal utility is the same as the magnitude of price, the consumer buys (consumes) the optimal quantity of the good;
  - MU greater than price = consumer buys (consumes) little;
  - MU less than price = consumer buys (consumes) too much.

- Ordinalist approach:
  - utility and usefulness cannot be measured;
  - the consumer is not able to determine exactly how much utility the consumption of a product/consumer basket (product mix) brings to him/her;
  - however, the consumer can determine which product (product mix) is more useful to him/her;
  - the consumer then determines the order of consumption of each product (combination of products) according to the magnitude of the utility.

- Ordinalist approach:
  - the basis of this measurement is indifference analysis, in other words, consumer behaviour theory;
  - it is the principle of consumer substitution the consumer chooses among products (mutual substitutes) such combination that brings him the same satisfaction;
  - graphically, this analysis is represented by the indifference curve (IC);
  - The IC shows all combinations of products (all combinations of consumption baskets) that bring the same level of utility - the consumer is completely indifferent to which of these products (baskets) he will consume.

- Ordinalist approach:
  - the slope of the curve shows the degree of substitutability of two goods = the degree of substitution;



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- Ordinalist approach:
  - the ratio in which one good (product) is replaced by another good is the rate of consumer substitution - the slope of the indifference curve;
  - the marginal rate of substitution (MRSc), in other words, how this rate changes as a function of distance from point 0 (slope plus the bend in the indifference curve), is crucial for consumer decision-making;
  - the MRSc is the rate at which the consumer will substitute a decrease in one good for an increase in the other good so that his satisfaction (utility) remains unchanged:

MRSc = MUx/Muy.

Ordinalist approach:



- The set of indifference curves forms an indifference map.
- Each higher curve shows a higher consumer utility.

- Ordinalist approach:
  - characteristics of indifference curves:
    - convexity to the origin: the marginal rate of substitution increases as the consumer moves up the IC (as he increasingly substitutes good x for good y);
    - decreasing shape: a decrease in consumption of one good is offset by an increase in consumption of the other good;
    - impossibility of intersection: if so, the consumer is irrational (he does not know his preferences and all combinations would be equally satisfying).

- Ordinalist approach consumer balance:
  - after construction the indifference curves, we add the budget constraint:
    - the size of the income (which the consumer is willing to spend on goods X and Y) the size of the budget constraint;
    - the price of the goods (their ratio) the slope of the budget constraint;
  - then construct the income line (the maximum available combination of the consumer's income distribution for the purchase of goods X and Y);
  - the income line is a line whose slope is given by the ratio of the prices of goods X and
     Y, in other words the marginal rate of substitution in exchange:

(Px/Py=MRSe).

- Ordinalist approach consumer balance:
  - consumer equilibrium (optimum):
    - the consumer maximizes his utility for a given income and goods prices;
    - the consumer therefore finds the combination of goods that best satisfies his needs at a given income and price (MRSc=MRSe);
    - it is the optimal combination of purchase of goods X and Y (i.e. by spending the whole budget
      the consumer achieves maximum utility);
    - combinations above the indifference curve are unaffordable for the consumer (he does not have sufficient disposable income for them);
    - all other combinations below the budget line are affordable, but yield a lower level of utility.

- Ordinalist approach consumer balance:
  - consumer equilibrium (optimum):
    - is an exceptional situation in real life (there is rarely a consumption equal to the touch of MRSc and MRSe) - there are often deviations from this balance for various reasons;
    - factors acting on the change of the equilibrium state are e.g.:
      - not finding the optimum by the consumer (consumption of goods that bring less utility);
      - changes in household income;
      - changes in the prices of goods X and Y;
      - change in consumer preference.

#### Thank You for Your Attention