



(RESEARCH ARTICLE)



MARKET VARIABLES, DEMAND AND STRATEGY; COULD THERE BE A GLOBAL-RESISTANT PRODUCTION STRATEGY? HOW ABOUT A CRISIS-PROOF STRATEGY?

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ABSTRACT

Market demand is affected by different factors, the most important of which is the consumer behavior.

This introductory study, uses secondary sources of information to study those aspects of the consumer-behavior affecting production, finding a relationship between them, analyzing production possibility frontier with consumer possibility frontier within the utility frontier shifting across and with the various indifference curves.

The objective is to provoke discussion which will help conduct future research on the subject and thus aid firms facing economic and geopolitical challenges.

Keywords: Market variables, Consumption Possibility Frontier, Production possibility frontier, Close market, global market, Market crisis, Global markets, Consumer behavior, Market demand, Pull production, Utility possibility frontier, indifference curves.

1 INTRODUCTION

1.1 Market variables influencing production and consumption:

In Economics, involvement in economic transactions, like buying and selling, is characterized by the presence of many economic variables. Some of these variables could be internal because they rely on the individual players in the market. Others could be dependent on the market environment (external).

Economic variables are described as those variables which can change in value on a range [1]. Apart from income and costs which have become an instant example of economic variables, the range of economic variables includes unemployment level, company profits, the number of people under the poverty line and labor force participation. Other important economic variables at the family level include the average income, inflation rate, injections (exports) and

leakages (imports).[2]. Furthermore, there are economic variables which include production and consumption of goods and service, the level of debt in a country, etc.

These variables have an interrelationship where any change in one variable leads to changes in another variable, which makes the other variables dependent variables.

The profit levels in business are influenced by the state of the economy, cost, and sales while product quality depends on production. Tax revenues by the government are affected by incomes of the consumers and profits in business. Employee dismissal rates during economic recession are related to lower incomes.[3].

In this regard, the independent variable refers to the variable which changes on its own and is not influenced by any outside variables. Independent variables include factors like direct cost that consists of the cost of raw materials, leasing cost of premises and labor cost. However, although these factors add up to the total cost incurred by SMEs, the business owner cannot control these costs on their own[3].

The other independent variables that influence the sales include the demographics of the customers such as age, gender, income, education level, marital status, and occupation. Such variables influence consumers' demands independently from each other and hence influence sales and profitability of the business independently [3].

For an analysis of such variables, the first step would be to gather information. This could be done by the collection of secondary data. The secondary data refers to the published or unpublished materials that are one step away from being the primary source [4], The secondary data could be collected from various sources, such as statistics, case studies, libraries, census, newspapers, and annual reports. The difference between the secondary data and primary data is that while the primary data are generated by the researchers themselves, the secondary data are already present and have to be collected.

Analysis of such data helps in understanding the behavior of consumers as per the neoclassical theory of consumption [5]. It states that consumers rank their choices in terms of preference (preference orders, exogenous preferences).

Income and other factors determine the set of consumption options that are possible for consumers; these consumption possibilities are shown graphically by indifference curves, which show combinations of goods that give the same level of utility.

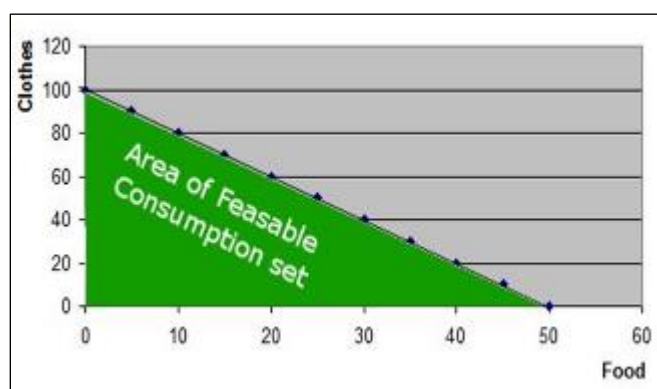


Figure 1: Food and clothes budget constraint (Suleiman, 2026).

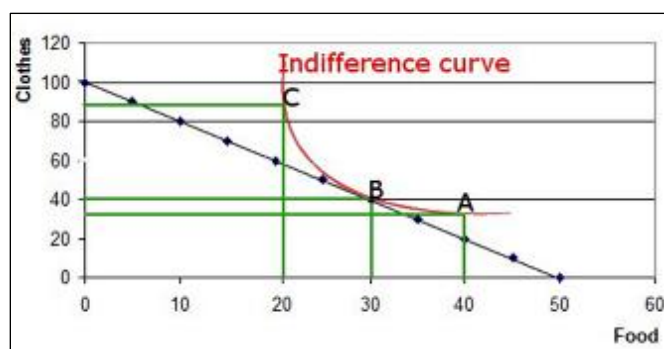


Figure 2: Food and clothes budget constraint, indifference curve and utility maximization point (B). (Suleiman, 2026).

Within the realm of microeconomics, the point of tangency where a budget line intersects an indifference curve (B) indicates the maximization of utility, where consumers will use all their money in purchasing goods and services such that the maximum possible level of utility is achieved. Analysis of microeconomics forms the basis for determining individual demand curves, which in combination form the aggregate demand curve. This process determines the amount of production by firms to meet consumer demand.

As macroeconomic policy making, it is important to know the above mentioned variables. The policy makers' goal is to ensure that there is economic growth as seen through the positive real GDP growth rate (around 5% per year) and to keep the rate of unemployment close to full employment and avoid high rates of inflation (less than 3%).[6].

1.2 Production Possibility Frontier (PPF) and Consumption Possibility Frontier (CPF)

The product here refers to the goods and services that exist within the general scope of the economic market, aimed at fulfilling consumers' demands.

The consumer picks his/her choice from the number of goods in the limit of the maximum possible production. The firm decides on the number of different goods to be produced depending on the PPF. This would work in a closed economy where there is only production domestically without any foreign trade. But in the case of foreign transactions, the curves will be different as the source of procurement of these goods is external, which increases the consumption options, see Figure 1.3 [7].

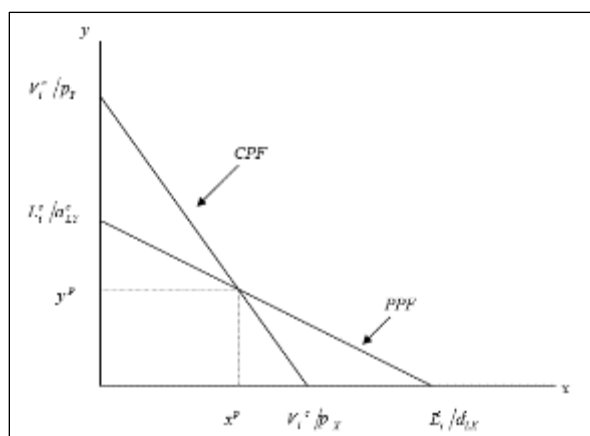


Figure 3: Consumption Possibility Frontier for Production Choice (pp yx .) [8]

This is the PPF matching CPF, but how about looking at it from a Utility point of view?

The Utility Possibility frontier is a line representing graphically the max utility obtainable by an individual, anything under this line is obtainable, but the individual will aim at obtaining the maximim utility for his money and possibilities, so the selection will fall on this line, representing the max obtainable benefit, and so the max utility, see the Figure 1.4 below:

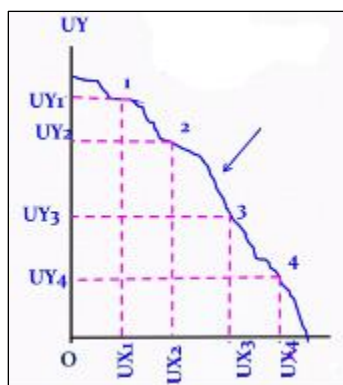


Figure 4: The Utility possibility frontier [9]

If we are discussing the UPF we cannot not illustrate the Social Indifference Curve, which represents graphically the points where the quantities of good X or good Y gives an identical level of welfare, this level is W_1, W_2, W_3 , as the income increase the W level will get higher.[10]

The below Figure 1.5 will illustrate moving on the same indifference curve or shifts of the curve to a higher or lower one.

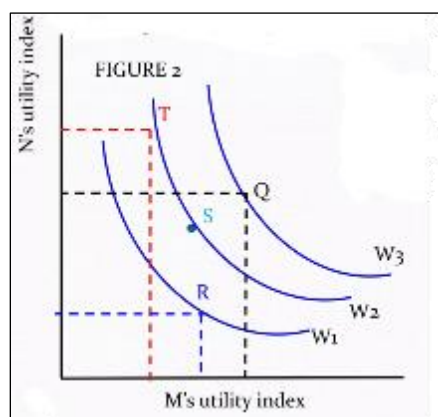


Figure 5: Social Indifference Curve[1]

2 FINDINGS

Several economical variables affects any economical activity, by knowing them we can better understand how to deal with them, connecting them and developing useful models to aid the market understand and its needs, this can benefit both society and individuals, as the consumers will have their needs satisfied, economies will produce and sell following market demand, so the circular model of income will keep working, where benefits flows and reach all.

Consumption Possibility Frontier is equal to the Production possibility frontier in an close market scenario, in an open market they are not, but CPS still matches PPF at some point, defining the market demand.

The utility possibility frontier is affected by wealth level, economic stability, wage, geopolitics.

the UPF intersects the indifference curve at some points, in case of crisis or lower wealth scenarios the UPF will drop, the indifference curve will shift downwards, and the new UPF will redefine the CPS, setting a lower market demand level.

3 DISCUSSION

Observing Figure 1.5, the only PPF left to match CPF is at X_p and Y_p intersection, how it impacts manufacturing?

- The quantity that the consumer will buy will be always the one matching the edge of his CFP.

- Accordingly the PPF doesn't have to go above or lower that quantity, the excessive amount of product X and product Y will remain unsold.

How to tackle these difficulties and set production level efficiently?

Considering that manufacturing is demand driven:

- Manufacturers does not produce only product X and product Y, they produce many others, so by setting the quantity to match the local demand, they can still produce A, B,C,... within the match of PPF with CPF, ensuring the max sales success obtainable from each product.
- Manufacturers does not only sell to the local country, if the market is global, so its open both ways, to the consumer so as to the manufacturer. The manufacturer can match the demand from other counties, summing the quantity of product X and the quantity of product Y obtained from the global market to these expectation from the local market.

Can there be a global-resistant strategy?

- Based on the above, the applicable strategy is to limit the production with the quantities of product X at X_p and of product Y at Y_p , without other positive global factors, this will be the only market demand for product X and product Y.
- An alternative strategy will be diversification, introducing other products A,B,C,... so each will have its market demand and the company can produce the needed amount of each product.

Are Utility and indifference curves Wealth-related?

The Utility possibility frontier (UPF) illustrated in Figure 1.2 is strictly related to the indifference curve (SIC) of Figure 1.3, as the UPF matches points on the wealth level ie. W_1 , so if wealth increase also the UPF will rise to match a higher Wealth level ie. W_2 , and so on.

On another hand. moving along the indifference curve does not affect wealth level, you can increase M and reduce N or vice versa, without affecting the wealth level, which is only affecting while shifting from a wealth level to a higher or lower one, W_1 , W_2 , W_3 .

How does the Utility possibility frontier (UPF) change during a crisis?

During a crisis the income is reduced or becomes uncertain, people tends to be worried about spending a lot, besides inflation and unemployment plays a major impact, accordingly the consumers will buy less, the UPF will reduce, this will bring to a shift in the indifference curve as well, shifting down to lower Wealth levels.

Can there be a crisis-proof strategy?

Not directly, not production-wise, nor product wise, it might be in quickly understanding and reacting to the market, so as the indifference curve shifts down to a lower W, the new market demand drop -affected by the new lower utility possibility frontier-, spotting this on-time can help to adjust production to match the new demanded quantities.

4 OTHER STUDIES ON THIS SUBJECT

There is an important paper discussing this downturn in terms of consumer behavior, taking the American Consumer scenario as an example, during the 2008 crisis, Covid pandemic and post-pandemic scenario.

The study was made at Union College by Eleanor Winters, entitled "Analyzing Consumer Behavior Shifts and Strategic Responses During Economic crisis." [12]

The paper explored a range of behaviors, including practicability, self-trust, relations, security, as well as future uncertainty, hard value, cost benefits, time preference, financial adversity and safety.

The objective was to facilitate a more profound comprehension of new customer activities. It is incumbent upon companies to exercise meticulous care when deliberating their marketing budgets and to reach optimal marketing resolutions.

In a scenario of economic recession or pandemic:

- Low-income families will limit their spending power to the necessities alone. The adverse psychological consequences of such hardship, will include elevated anxiety levels and an escalation in parental conflict.
- Middle- or high-class families may not be confronted with the same degree of financial strain, still, they will implement reductions in expenditure on non-essential and adjustable commodities.
- Behavior: In the context of emergent social transformations, consumers have been observed to demonstrate a tendency to disregard their innate instincts and acquiesce to the influence of behavioral awareness, aligning with prevailing interests.

Suggested actions for companies in a Pandemic / post-pandemic scenario:

- It is vital for businesses to sustain or augment their advertising expenditure, as effective advertising can facilitate a rapid recovery in business post-pandemic.
- Businesses are encouraged to leverage the pandemic as an opportunity for public welfare initiatives.
- Companies which are able to provide hard value and cost benefits to consumers are better placed to survive and improve their situation during and post-pandemic situations.

STATEMENTS ON COMPLIANCE WITH ETHICAL STANDARDS

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Disclosure of conflict of interest

The authors declare that they have no conflict of interest.

Statement of ethical approval

The author confirm that procedures followed the 1964 Helsinki Declaration and its later amendments, or comparable ethical standards.

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