How Welfare Economics Will Help to Meet the Challenges of the 21st Century

Soumak Palit
Tata Consultancy Services (TCS)
Dwijen Mukherjee Road
Behala, Kolkata-700060 India

Abstract

In this paper I have brought out the key concepts and strategies that are required to enable an economy's all around development. The present situation in this world especially after globalization throws challenges on how every country adopts the requirements of the world and configures its economic policies accordingly for inclusive growth and development. The paper focuses on the meaning of "capability", in real terms and the various steps that government should follow to achieve economic and welfare goals. There are various mathematical formulas and welfare standards which are brought out in this paper as a note of guidance to policy making bodies in order to achieve productive developmental outputs through sound welfare measures. Another important aspect, which is covered in this paper, is "capability matrix", which measures capability in four fold aspects- literacy, assets, financial growth and employability. In order to analyze and apply the above four factors one need to clearly differentiate between efficiency and effectiveness. The" total utility" generated by an economy at any point of time may not always result in value upliftment of any fraction of population because of two central reasons:

(1). The demand put forward by international economies may not align to the supply needs of the domestic economy at a particular point of time and thus lead to lag in the form of market competitive forces.
(2). The existing productive manpower of an economy may not always be willing to provide service in the domestic economy and are willing to migrate to other economies that provide better monetary rewards and thus the production is hampered.
The "Economic freedom" is one of the crucial factors that needs to be assessed to judge what is the extent of ownership rights being enjoyed by the under privileged sections of the society and the level of activities that is undertaken by them in sink with the general mass in the process of development.

Keywords: Capability, Capability Matrix, Total Utility, Economic Freedom

What is Welfare Economics?

Welfare Economics can be defined as, "the ways and means that an individual can adopt to move from his current state to enhanced state and simultaneously uplifting the standard of living of the underprivileged sections of the society by creating welfare opportunities for them."

So, now let us see how to enhance and create welfare opportunities:-

(1). Changes in way of thinking- An individual's growth process must be such that it keeps in pace with the changing needs of the society. For e.g.:- certain section of the population of any country always follows a conservative approach when it comes to education, and change in lifestyle.

(2). Increasing literacy rate- The education system must be channelized towards the welfare system which means that right from the inception when an individual is choosing his or her stream of choice, the educational institutions must set up two sets of criteria:-

(A). Core Competency- An individual's main focus area. The present day economy demands that with complete mastery of the individual's area of strength one needs to analyze the probable linkages of its competent areas to other branches of knowledge to enhance its productivity.

(B). Supplementary Competency- That is in which other areas an individual's core area can contribute, must be tracked. E.g.:- an individual's knowledge base should not be limited to demands of the domestic economy but rather it should simultaneously should deliver to the improvement of the international economy. The income growth should not only be limited to job enrichment but also capacity development.

(3). Dynamism- This concept is a crucial matter in welfare economics and it can be judged in the manner that to what extent an individual's contribution to one sector is providing value addition to other sectors. E.g.:- Finance and I.T.

The Dynamism judgment= (Total Utility*N) - (Total Marginal Benefit from the "nth" unit of labor).

Note- (a). "N"- Denotes the workable population of any economy.

(b). "nth unit"- Denotes an additional labor or the same employed labor's value addition either to the same industry within an economy or to any other industry or in a wider level to any other economy.

(c). The difference figure will give us the gap that is existing between value enrichment and potential value generation i.e. between employed value adding workforce and the employable potential human capital yet to be employed.

Defining Capability

Before, defining capability we need to understand "Demand," in the context of welfare economics. "Demand," can be divided into two parts:

(1). The average time period for which an individual income earner is able to attain the 'equilibrium stage', by maintaining his income level for meeting the living standard and also the needs of the society (company, or any other practice).

(2). In the long run, we have to look for bridging the gap between the literacy rate and the frequency of growth in the inter-economy employment market, there arises a problem regarding employee substitution and adaptability to different challenges which the economies come up at particular point of time, for which course delivery and tenure must be aligned to the different countries employment laws, migration rules and foreign policies.

In order to meet the above two goals, following conditions must be fulfilled:

(1). **Literacy Rate**= fraction of population meeting the benchmark/population accessible to education*100

(2). **Choice Set**= comparison between core strength and service asset to capture the utility value.

Service Asset can be defined as, "the list of attributes that are defined by the planning commission pertaining to GDP growth and the set of values that an individual posses to match the requirements at that particular point of time." The attributes may range from individual development, peer-peer development, industrial growth, or enhancement in talent acquisition index.

(1). The "Capability", is to be measured in terms of 'marginal contribution' that an individual is making to various sectors with the acquired skills and knowledge.

E.g.:- a person in the field of Finance doesn't mean that it will not contribute to the field of Operations, so the focus is on systems integration and multi-skills development.

(2). Capability and functioning is not confined to combination of offerings of actual state, rather how much we are leveraging on our freedom and able to explore opportunities.

Efficiency= n (n+1)*k/ (MPL*rd)

Where, n= concerned part of population who are real contributors in creating resource efficiency and life betterment

(N+1)= the focus group of population on which it is generating impact for status upliftment

K= GDP growth target

MPL= Marginal productivity of labor

Rd= Relative demand for the concerned resource (land, labor, capital or human ability)

(4). The Capability, should focus on "to what extent an individual is capable of developing others' lives with more contribution to self".

Capability Matrix

Capability	Measurement
(1). Literacy	GDP rise with a balance between HDI & Gender distribution. Beta + (i%/i+g)*MPL
(2). Assets	Return on investment SG+MVA*MYAE/n
(3). Financial Growth	Up to date knowledge on SEBI and Stock Market and other financial instruments (Mutual Funds)
(4). Employability	Experience from Project works of various types of industries

Total Capability= A+B+C+D

Where,

Beta= Constant Growth Rate maintained by the Planning Commission

I%= percentage growth rate in intellectual base due to acquired education.

G= actual growth that the economy is producing

MPL= Marginal Productivity of Labor

SG= Sectoral Growth

MVA= Market Value of Assets possessed

MYAE= Mean Year of Acquired Employability

N= Total Population assessable to education

Calculation of Success Factor of Capability

Mean Value of foreign exchange circulation (f1) + {MYAE-Real TimeAE}/MVA

Where,

F1= extra circulation of foreign currency after training

MYAE= mean year of acquired employability and education

MVA= Market Value of Assets

Taking into consideration the time lag between education and job

The value of the formula must be closer to Per Capita Income, better it is. The'n' focus will be the benefit section of the population.

Economic Freedom

The term "freedom", can be defined as the quantum of value exchange that an individual is capable of doing in various situations and the ability to analyze them into future growth and stable livelihood building".

The situation specific can be divided into three parts:-

(1). State of normalcy- It is the situation where an individual already has a strong family background to establish themselves in context of the global situation.

(a). Productive capacity of the family is creating new benchmark to achieve the Pareto constancy for the rest of the population to meet the globalization challenges of the world economy.

(b). Pareto Optimality= marginal growth of that particular fraction of population – Marginal utility of the focused group(%change inutility/%change in literate population).

(2). State of maturation: - The main focus here is related to quality of education and training imparted by various countries to cater with their economic demands both in the short run and the long run. In this case, the gap analysis is to be made between mean year of acquired education and real time acquired education. Real time is concerned with reaching the development phase of the employment cycle of an individual, while the mean time is concerned with the time frame within which an individual is ready to start its employment cycle.

(3). State of Valuation: - The state where Self demand=Economic Demand.

Where,

Self Demand= Individual's efficiency rate*competency rating growth

Economic Demand= Industry demand in domestic economy and international economy benchmark.

Individual's Efficiency Rate= Marginal Growth of the individual's performance as a result of better training, technological advancement, holistic work environment, one's access to resources + Base level performance.

Competency Rating Growth= various performance weightage given by organizations' on the basis of their life cycle (growth, maturity).

Human Development- The process of human development is the art of three states:-

(a). A position in which an individual is able to define the very basis of his existence by way of value addition to his life and to the society.

(b). Is in a situation where he can extract his demand, even in conservative economic environment where there is employment and money crunch.

(c). is able to amalgamate the output of his domestic economy to the global economy.

Thus, we have to consider the following:-

(1). The time lag between the creation of demand and supply of it.

(2). The elasticity of substitution by the existing resources to contribute towards actual capital and potential capital, relating to GDP Growth.

Actual Capital= Amt. invested in existing manpower+ Inflation Rate/Budgeted growth as determined by Planning Commission.

Potential Capital= Capital value enhancement by marginal contribution+InflationRate/Targeted Growth Rate.

Therefore,

Human Development Index must consider and compare the cost of growth that an economy is bearing with the value return that various fraction of population is providing both within the economy and in the international economy.

(A). **Within the Economy**: -

Cost of Growth= (1). Market value of the resource <Cost of acquisition of that resource.

(2). Rate of Inflation > Return on exchange of currencies.

Value Return= The expected years of converting the resource into delivery mode*Utility factor.

Where, Utility Factor= Weighted Average of years of education to enter into employment cycle*Cost associated with it / Total Cost channelized into the sector in the budget by the Govt.

(B**). International Economy**- The value that an individual is able to attract to stabilize the EXIM policy, Balance of payments and increase the frequency of currency exchange in the economy. It can be depicted by the following table:-

Total population of the economy getting migrated to earn foreign exchange	Utility comparison by way of currency flow to mark the trading pattern of the currencies in international money market
Proportion of currency flow by way of core & supplementary competencies	Average Revenue Curve growth must be maintaining a constancy in terms of marginal revenue, marginal cost, target growth rate and monetary policies

Efficiency vs. Effectiveness

(1). **Efficiency-** It can be defined as the art of mapping things in the right flow to get a competitive advantage and enhance utility.

(2). **Effectiveness**- It can be stated as a reduction in the the period to reach a point of final marginal effect from initial marginal effect.

Initial Marginal Effect- The comparison between fixed production units' value in terms of other currencies and the average variable cost balance between revenue and capital profit.

Final Marginal Effect (a). Value generated by the demand curve both in terms of elasticity of price and revenue.

(b). Measure of standard deviation of the average time period of the age of efficiency to the age of effectiveness.

(c). Capability Index = (Final Marginal Effect + Initial marginal effect)*Avg. time period targeted to meet the demand schedule.

Conclusion

In this paper I have tried to bring out the various dimensions of welfare in human life. The focus of welfare is on capability development, which in turn demands policy making bodies of various governments to adhere not only to domestic economic needs but also to forecast how a particular output will cater simultaneously to the demands of the other economies to enhance the quality of exchange for betterment of life. It may so happen that the magnitude of growth may not at that point of time be absorbed by the economy fully, at that time it must explore the opportunities of either self employment or critically analyze the choice ability factor to determine its long term goals well balanced with short term goals.