Trade flow analysis and study methodology

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INTRODUCTION

- Trade flow means flow of imports and exports, their components and direction

- Trade flow analysis helps to examine pattern of trade, trend of flow, concentration or the extent of diversification, and improvements required in particular destinations, value and supply chains.

PROCESS

- Take a product or service
- Analyse production pattern, growth, potentiality, capacity, costs, value addition, employment intensity (elasticity), and the comparative advantage
- Assess product diversification within sectors and export destination
- Analyse the market potential of the destination market including size of the market, income, disposable income, savings rate, purchasing power, market growth and trend
- Assess consumer preference , trend and changes

PROCESS..

- Assess market access conditions,
- Examine tariff and non-tariff barriers, and trade agreements impacting trade flow
- Assess nature, level of competition, market players,
- Assess information flow, information acquiring by consumers
- Invest, produce, market and distribute.

FACTORS AFFECTING THE CHOICE OF THE EXPORT MARKET

- What drives or will influence demand for products and services?

- Will the products or services be accepted?

- Who are the main competitors? Where do they come from?

- How do governments in destination markets regulate their market?

PRIORITISATION OF EXPORT MARKET

- *Market characteristics: It consists of studying the size and growth of markets, various* sectors, seasonal or cyclical trends and quality issues, among others.

- *Competitive conditions: consists of identifying the main competitors, distributional* ease in destination markets, and barriers to entry for newcomers.

- *Financial and economic conditions: consists of basic issues such as the cost of* doing business in specific markets, pricing practices and payment terms, tariffs and other barriers to trade, foreign exchange and currency stability, terms of concessional finance, and cultural, political and legal issues.

- *Foreign investment and consumer/environmental* legislation, registration and licensing procedures, local labour laws, and intellectual property protection.

Export identification and potential assessment methodology

- Revealed comparative advantage
- $RCA_{ij} = (X_{ij}/X_{wj})/(X_{it}/X_{wt})$
- where
- *X_{ij} is exports of product j by country i*
- *X_{wj} is exports of product j by world (or total world's export of product j)*
- *X_{it} is total exports all products by country i*
- *X_{wt} is total exports all products by world (or total world's export of all products)*

RCA

- RCA = > 1 Shows advantage
- RCA = < 1 shows disadvantage

GROWTH

- *Growth rate of exports*
- [(Xt+1-Xt) / Xt]*100
- where Xt is export value in year t and Xt+1 is export value the next year.

COMPETITIVENESS INDEX

- [(Σn Xp) / (Σw Xp)]*100
- where p is the product, n is country and w is world
- Measures a country's share in the world total export
- Ranges 0 to 100
- Indicates market power and control

ADDITIVE RCA

- Defined as the difference between the share of a country's total exports of a specific product in its total exports and the share of world exports of the same product in total world exports.

- ARCA =[{ (Σn Xp) / (Σn Xpi)} − {(Σw Xp) / (Σw Xpi)}]

- where p is a product, n is country, w is world, and pi is all products. The first term is the share of product p in the total export of country n. The second term is the share of product p in the total exports of the world.

- It compares the export pattern of a country to the export pattern of the world.

- It ranges from -1 to +1.

Michelaye index

- Defined as the difference between the share of a country's total exports of a product in its total exports and the share of the same country's imports of the same product in its total imports.

- Michelaye index = $[\{(\Sigma n\ Xp) / (\Sigma n\ Xpi)\} - \{(\Sigma n\ Mp) / (\Sigma n\ Mpi)\}]$

Michelaye index..

- where p is a specific product , n is country, pi is all products , X is exports to world, M is imports from world.
- The first term is the share of export of product p in total export of country n.
- The second term is share of import of country n of product p in total import of country n.
- It compares the export pattern of a country to its own import pattern.
- It ranges from -1 to +1.

Export potential assessment (composite index) used in NTIS 2010
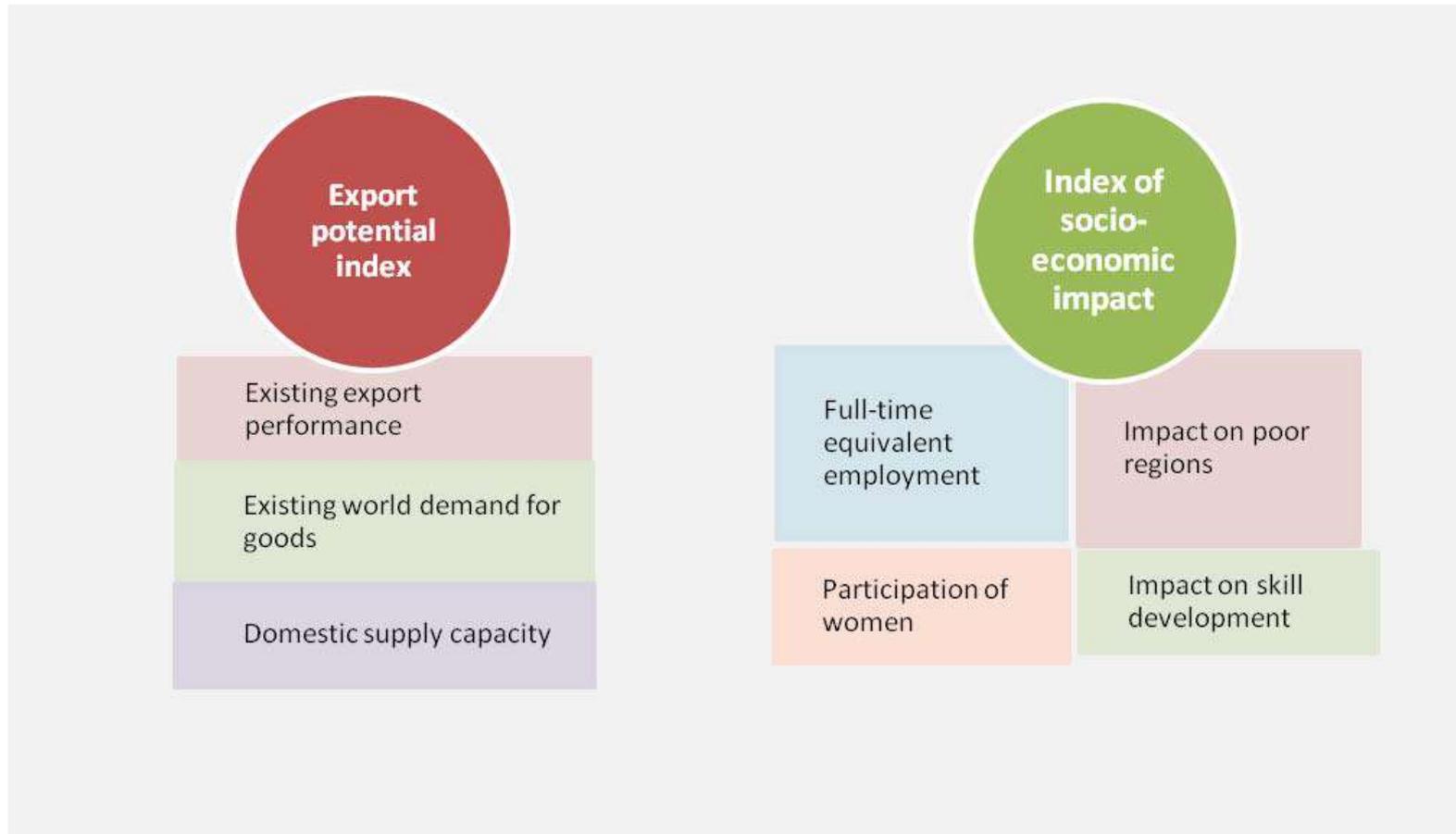
EXPORT POTENTIAL ASSESSMENT METHODOLOGY USED IN ITC STUDY

Export performance	World markets	Domestic supply conditions
• Export value • Export growth • World market share • Relative trade balance	• World import growth • Share of attractive markets in world imports • Average tariff advantage weighted by importers' share in world imports • Market prospect	• Product quality • Unit labour costs • Average production cost • Process technology • Average infrastructure cost • Upstream and downstream linkages • Competitiveness prospect

Domestic Resource Cost

- Domestic Resource Cost (DRC) is a measure, in terms of real resources, of the opportunity cost of producing or saving products to foreign exchange. It provides a comparison between the domestic costs to produce a given good with its value added at international price.

- The DRC sought to take account of market-factors distortions in contexts where factors opportunity cost could be measured in domestic currency, and the opportunity cost of tradable products and inputs can be measured in a foreign currency. By separating the two types of factors, this ratio allows ranking of activities without knowing the shadow value of foreign exchange. A shadow exchange rate is still necessary to determine the cut-off between efficient and inefficient activities (Pearson and Meyer, 1974).

Domestic Resource Cost..

- The DRC provides comparison of the relative economic efficiency in production across sectors. The comparison of DRC calculations values across sectors provides estimation on which sector can use more efficiently domestic resources than others among those that are protected and those unprotected.

- Policy makers can take efficient decisions on domestic factor allocation between sectors. Examined in conjunction with the goals and incentives supplied by economic policy, the DRC can also be used as an indicator of the impact of restrictions to external trade(Ruiz, 2003).

- It provides an approximation of the effects of trade policy on the efficiency of the allocation of production resources and hence of the influence of trade policy on the productive structure in a given country.

DOMESTIC RESOURCE COST..

- The analytical form of the DRC ratio can be represented by the value of non tradable inputs (primary production factors) evaluated at their opportunity cost divided by the value added of this product evaluated at border/frontier prices.

DRC = Opportunity costs of domestic resources

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Value added in border price

DOMESTIC RESOURCE COST..

$$DRC = \dfrac{\displaystyle\sum_{j=k+1}^{n} a_{ij}\, v_j}{P_i^{r} \cdots \displaystyle\sum_{j=1}^{k} a_{ij}\, p_j}$$

Domestic Resource Cost..

- *aij, j = k + 1 to n, are the technical coefficients for domestic and non-tradable inputs.*

- *Vj are the shadow prices of domestic resources and on-tradable inputs.*

  r
- *p are the border/reference prices of traded output.*

  i
- *aij, j = 1 to k are the technical coefficients for traded inputs and are the border/reference prices* of traded inputs.

  r
- *P* : are the border/reference prices of traded inputs.

  j

Domestic Resource Cost..

- For a commodity (*i*), and according to the equation, a DRC lower than the unit indicates that the country has a comparative advantage in the production activity of this product.

- However, a DRC higher than the unit means that the economic value of the national resources used by the mentioned activity is higher than the amount of currencies gotten by this activity.

- Resources engaged for this production can, in this case, being better valorised in other activities.

- An activity which the DRC is equal to the unit is known as even deal.

OTHER ADVANCED MODELLING

- CGE Model
- GTAP

THANKS