Measuring value chains: Introduction of quantitative instrument based on input-output tables

> 10% GDP

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US\$

1.5 TRILLION

6%

OF WORLD'S

EXPORTS

30%

OF SERVICES Exports

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"The Gambia's tourism sector: Measuring its value chain and exploiting its potential"

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1. Context

In development studies, the global value chain (GVC) describes the people and activities involved in the production of a good or service and its supply, distribution, and post-sales activities (also known as the supply chain) when activities must be coordinated across geographies. GVC is similar to Industry Level Value Chain but encompasses operations at the global level.

Objective:

- Better assess the contribution of services to regional value chains
- Provide good indicators for Measuring value chains
- Two methodological approaches to the study of services in regional value chains:
 - Qualitative approach, based on firm-level interviews as the basis for case studies,
 - > Quantitative approach using multi-region input output tables (MRIOs), based on the literature on trade in value added.

1. Context

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- The quantitative approach
 - * based on the literature on trade in value added,
 - * uses multi-region input output tables (MRIOs),
 - * uses algebraic formula and computation in software like R
- In the knowledge sharing platform of the project, there is an online course which will facilitate the learning of the quantitative tool.
- Fundamentally, this approach decomposes the gross value of exports into two components: Domestic origin Value Added (DVA), and Foreign origin Value Added (FVA).

1. Context

- The Domestic Value Added (DVA) in exports are the value added in exports whose the outputs are produced by domestic industries
- The Foreign Value Added (FVA) in exports are the value added in exports whose the outputs are produced by foreign industries
 - Known as "VS" in the technical literature.
 - Known of backward participation in the policy literature
- The Indirect Domestic Value added (DVX) in exports, i.e., Value Added that is embodied in the exports of other countries, upstream contributions of DVA of other industries
 - Known as "VS1" in the technical literature.
 - Known as forward linkages in the policy literature.
- GVC Participation Index = (FVA+DVX)/Gross exports that is the best indicator which shows how the sector involved in RVCs/GVCs through both backward and forward linkages.

2. Case of Tourism Value Chains in Ethiopia and Kenya?

Breakdown of Gross Exports by Origin







The data suggest that although Kenya's sector is much larger than Ethiopia's, the latter is more involved in RVCs/GVCs through both backward and forward linkages.

2. Case of Tourism Value Chains in Ethiopia and Kenya?



The origin of hotels & restaurants sector exports is mostly services in both countries.

But there is a much higher proportion of imported services in Ethiopia.

6

Domestic Foreign

3. Case of Domestic Value Added in tourism sectors in Canada and UK

Domestic Value Added generated by tourism sectors

- Whereas 1 CAD of exports generates 71 cents of Canadian value added, 1 CAD of nonresident expenditure generates 81 cents of Canadian value added.
- In the United Kingdom, whereas 1 GBP of exports generates 74 pence of value added, 1 GBP of non-resident expenditures generates 82 pence of value added.



3. Case of Domestic Value Added in tourism sectors in Canada and UK

- In addition to Domestic Value Added (Direct Value Added), the model allows to compile the Indirect Value Added.
- ▶ For example,
 - In Canada, in 2012, each CAD of direct value added generated by non-resident expenditure generated an additional 70 cents of upstream value added.
 - In the United Kingdom, in 2010, each GBP of direct value added generated by non-resident expenditure generated an additional 48 pence of upstream value added.

8

4. Some implications for policy making

- Quantifying the value generated in the tourism value chain makes it possible
 - > to identify which type of tourism activities and tourists add more value, ... (OECD, 2017)
 - better understanding of these bilateral exchanges (the direct and indirect impacts of tourism)
 - identification of source markets which generate more value added in the domestic economy.
 - bow upstream domestic industries (backward linkages) contribute to tourism exports

4. Some implications for policy making

- Quantifying the value generated in the tourism value chain makes it possible
 - > help to respond to key policy/statistics questions such as:
 - How much value does tourism add to economies?
 - Does tourism create additional trade?
 - Do tourism services have 'high or low' domestic value added content?
 - How does tourism compare to the rest of the economy?
 - What is the upstream impact of tourism on other domestic industries?

Thank You