# Identifying Regional Economic Potentials

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## 1 Introduction

In 2006, mesopartner was commissioned by the European Union–Vietnam Private Sector Support Programme (EU-VPSSP) to develop a methodology for Regional Economic Potential Analysis and the supervision of its first application in the three provinces Hai Phong, Da Nang and Can Tho. The aim was to identify sectors to be addressed by the project for deeper analysis and sectoral focus for intervention. The methodology was developed in cooperation with the Vietnamese consulting company MCG, which was in charge of putting this methodology into practice. The newly developed methodology was expected to be rapid and – as far as possible – participatory.

In the early phase of the tool development, Jörg Meyer-Stamer gave very crucial hints on key methodological strains on which the methodology could be based: global comparative trade analysis and the learning from global buyers approach The profound knowledge of both approaches originated from his involvement in development work in Brazil in the nineties as well as his close cooperation with the Institute of Development Studies in Sussex over more than a decade.

The approach of the study has drawn interest from other agencies, and the methodology has been replicated by MCG (in a modified form) in Tra Vinh province in Vietnam. mesopartner has also replicated the approach in Indonesia. The objective and the methodology appear to be of high relevance, and there is demand for a practical and universally appli-

cable methodology. In this light, and as described in this article, the first applications of the Regional Economic Potential Analysis have shown that the method could and should be improved. The call for further development of the tool is the underlying motivation for writing this article.

Certainly, other approaches to identify economic potentials of local, regional and national industries and sub-sectors have been developed. Section 2 addresses the question of why there is demand and interest for identifying economic potentials. In section 3, this article briefly describes some of the traditional approaches as well as the general methodological framework they are embedded in. Sections 4 and 5 outline more recent methodologies, including the Regional Economic Potential Analysis in detail. For all approaches, the paper attempts to assess strengths and weaknesses, especially when it comes to rapid and participatory applicability. Based on these reflections, in section 6 the author develops proposals to improve mesopartner's method for Regional Economic Potential Analysis.

## 2      Why Identifying Economic Potentials?

Economic policy decision-makers at the national, regional and local level are usually interested in economic growth and development. The economic performance and competitiveness of manufacturing and service industries at the domestic and international level are the key prerequisite for growth and development. When designing meso-policies at the various administrative levels politicians and their advisors from the consulting business or - in developing countries – often from international donor organisations are particularly concerned with the current and future competitiveness of economic sub-sectors. The increasing globalization of production patterns, trade, investment, innovation and technology transfer places competition and competitiveness in a new context. Increasingly, it is not only firms and industrial sectors that are competing for market shares in world markets, but also regions and whole nations hosting those enterprises and industries.

As a consequence, more and particularly more sophisticated tools and methodologies are needed to give evidence on the current and future competitiveness of sub-sectors and industries. At the regional and local level tools to identify economic potentials can help to:

- assist regional government / donor programs in identifying the main economic potentials of a region / locality

- assess future competitive advantages with regard to private sector and SME development

- support local producers in remaining or becoming more competitive

- develop a local or regional economic development strategy

- formulate suitable meso-policy measures

- benchmark past and current performance and international competitiveness of individual sectors

The choice of instruments to assess and forecast industrial performance and competitiveness depends on the purpose of the endeavor as well as on time and budget constraints. Typical polarities of the nature of economic potential studies are:

- Quantitative versus qualitative

- Rapid versus lengthy

- Participatory versus desk-top

- Bottom-up versus top-down

Certainly, also a combination of some of the apparent polarities is possible, e.g. quantitative and qualitative or participatory and desk-top research-based. Efforts to identify economic potentials at the regional level, possibly supported by donor programmes, typically are limited in time and financial resources. In this context, it is expected that the method is rapid (thus cost-effective), combining quantitative and qualitative sources (thus generating more significant results) and participatory

(thus involving local expert opinions and - at the same time - creating ownership of the results).

The next section describes a variety of approaches available that are determined by the specific characteristics described above or by a combination of these characteristics.

# 3    Description of a General Methodological Framework

*3.1 General Overview of Approaches for Assessing Competitiveness of Existing Industries*

In 2001, the Economic and Social Commission for Western Asia, a unit of the United Nations, commissioned a study on compiling approaches applied to assess the competitiveness and performance of industrial sectors (ESCWA, 2001). The result is a methodological framework that focuses on two approaches: the Competitiveness Approach and the Cluster Approach (see Figure 1 below).
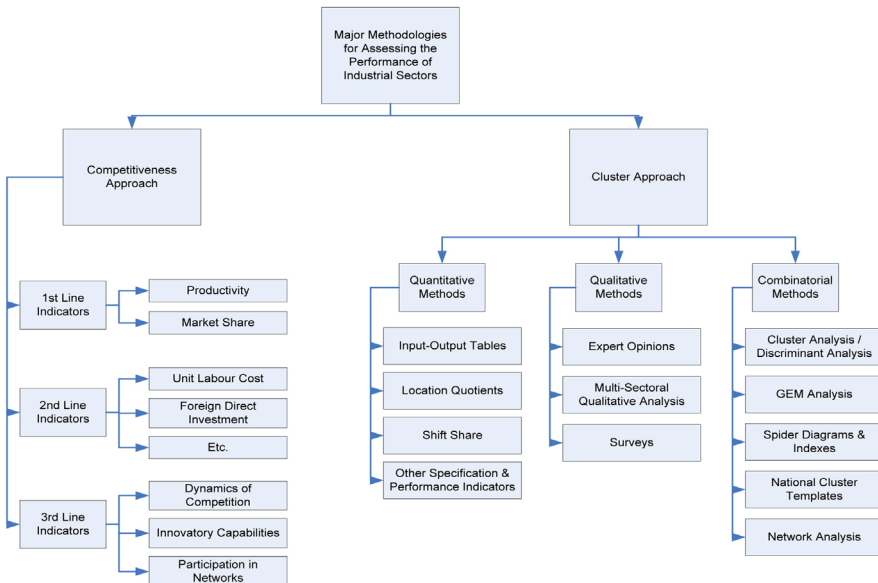


**Figure 1: Methodological Framework for Assessing the Performance of Industrial Sectors**
Source: Own graphic based on ESCWA, 2001

## The Competitiveness Approach

The competitiveness approach is based on the assumption that the productivity of an industrial sector – at national, regional or local level – defines its performance and thus competitiveness. The final verdict about the sector's performance is given by the domestic and international markets where firms and industries are competing for market shares. Thus, the first line of indicators in the Competitiveness Approach is determined by Productivity and Market Shares.

The ESCWA paper discusses the problems and various approaches of how to measure productivity (ESCWA, 2001). For a rapid appraisal methodology, however, any measurement of productivity is difficult, as it presupposes very detailed and industry-specific data research that can be lengthy and cumbersome. Rapid appraisal of economic potential can thus only include back-of-the-envelop estimation of sector-specific productivities, which then however are not very accurate and might be flawed.

In terms of winning market shares as evidence for competitiveness, the paper argues that one needs to look at the indicators domestic market shares, export market shares and increasingly at foreign direct investment accompanied by technology transfer in an ever more globalised world. Various specific, calculated indicators are presented, such as export-import ratios or exposure to international competition. Moreover, it is argued that changes in exchange rates or shifts in regional export specifications can affect market shares without changes in competitiveness.

The second line of indicators are supposed to complement the first line and consist of determinants of the socio-economic environment, such as relative prices, unit labour costs, rate of investment etc.

The third line of indicators introduces a dynamic dimension, considering that industries and their technological capabilities develop over time. This line of indicators includes dynamics of competition (e.g. firm entry and exit), innovation capabilities (e.g. rate of product innovation) and participation in production and innovation partnership networks.

The issue around all indicators listed above is twofold. First, very detailed empirical data are required over a series of years, which is often a challenge, particularly in developing countries, and conflicts with a rapid approach. Second, those indicators have an "ad hoc nature", i.e. the selection of specific indicators serves a certain purpose for one specific project and cannot easily be transferred to another project. "Strictly speaking, the lack of coherent theory—to choose important variables and determine cause and effect—makes interpretation difficult" (ESCWA, 2001).

**The Cluster Approach**

Clusters are defined as a territorial agglomeration of closely related industries. Typically, clusters also include supporting institutions, such as associations, research and technology institutes and infrastructure related to the core cluster functions. Industrial clusters have attracted the interest and attention of politicians and economic development officials in charge of identifying, sustaining and increasing regional competitive advantages and thus regional competitiveness. Industrial clusters are considered as impacting regional competitiveness in three ways: increase in current productivity, increase in innovation and productivity growth as well as generating the start-up of new firms (ESCWA, 2001).

Without entering into a detailed discussion on where to draw the boundaries of a cluster, which can be a "creative process" (Porter, 2000), we assume that most industrial cluster analysis methodologies can be used for analysing the competitiveness of regional industries that do not necessarily meet the strict definition of a cluster.

In 1990, Michael Porter developed the very heuristic Diamond model in order to describe and analyse the complex business environment in which firms and clusters operate and try to maintain or increase their competitive advantages. The Diamond model narrows the business environment down to four interrelated elements: factor conditions, firm rivalry and strategy, supporting industries and demand conditions. This model has been widely applied since then, adjusted and expanded by Porter himself,

e.g. by a fifth element 'Government', and also by other authors, e.g. the GEM model (see below). Conducting extensive research efforts along the four elements of Porter's Diamond or alternatively applying the Diamond in a participatory workshop setting with local actors can provide a first, very basic indication of local competitiveness.

Cluster analysts have applied a variety of quantitative and qualitative approaches and tools to study the competitiveness of industrial clusters. Also, some methodologies show a combination of both, quantitative and qualitative studies. Purely quantitative approaches include input-output analysis, location quotients, shift-share analysis and others. Qualitative approaches use interviews, focus group discussions, surveys as well as cluster maps. Combinatorial approaches are based on both statistical sector data and expert opinions.

- The most commonly used quantitative approach is probably the trade-based input-output analysis. Clusters and their competitiveness are derived from formal trade patterns. A recognised weakness of the approach is that trade data are often outdated and industry classifications do not always match existing sub-sectors at the regional level. An innovative, modified input-output analysis is based on innovation interaction matrices, describing the flow of innovation between innovation-producers and innovation-users based on surveys. The weaknesses of this approach are the time and cost required to collect the data.

- A quick and inexpensive approach to determine the sectoral specification of a region is the calculation of a location quotient. The location quotient is the ratio of a regional sub-sector's share of total regional local employment to the share of the national sub-sector's percentage of total national employment. A location quotient exceeding 1.25 typically indicates a regional specialization in a given sub-sector.

- Employment shift-share analyses look at changes in regional employment by sub-sector over a period of time in comparison with

changes in national employment. The results of shift-share analysis reveal strengths and weaknesses in the regional economy.

- Opinions of regional experts collected through interviews, workshops and focus group discussions are the most basic and at the same time most cost- and time-effective means of qualitative cluster and sector research efforts. In order to avoid receiving biased information and to triangulate opinions multiple sources need to be used and a variety of regional actors interviewed (entrepreneurs, public officials, representatives of associations and chambers, leading staff of supporting institutions etc.).

- The Multi-Sectoral Qualitative Analysis (MSQA) is a scoring technique employing certain performance criteria of various sectors in a regional economy with the aim of identifying opportunities and risks (Stough et al., 1997). For the identification of indicators and the scoring exercise key regional decision makers are used. The results are shown in various indices (sector competency index, core competency index, inter-industry opportunity index, export market potential index, regional risk index, among others).

- There is a wide variety of combination methods using both quantitative and qualitative research methods. One example is cluster analysis in combination with discriminant analysis. Here, four sets of variables are used for the analysis that identify the region's industrial drivers: measures of competitiveness (e.g. productivity proxy), indicators of export orientation (e.g. share of local exports by industry), measures of centrality in the regional economy (e.g. forward and backward linkages), and employment specialization (e.g. location quotient). The cluster analysis helps to group regional industries together. Driver industries are then defined by all industries showing six similar characteristics that are pre-defined.

- A method called 'Spider Diagram and Indexes' is based on fifteen economic performance indicators that represent four basic development parameters: scale (e.g. employment), performance (e.g. em-

ployment change), robustness (e.g. productivity), and growth dynamics (e.g. change in location quotient). The results are shown in a spider diagram (or radar chart) with fifteen spokes, which visualizes the strengths of the sector. Next, various indices are calculated: strength index (all 15 indicators), change index (only change indicators) and form index (all 15 indicators). The advantage of this approach is that it helps identify newly growing industries and their performance.

- Network analyses research on linkages between enterprises and subsectors using trade-based and innovation-based linkages, patents, strategic partnerships and expert surveys, sometimes complemented by social network analysis.

- In 1998, the authors Tim Padmore and Hervey Gibson developed an expansion of Porter's diamond, the so-called GEM model in order to describe and assess the competitive strengths and weaknesses of industrial clusters from a regional perspective (Padmore; Gibson, 1998). The model provides a framework combining dimensions of Porter's Diamond with an equally explicit accounting of infrastructure and markets, important in a regional framework. The determinants are organized under the headings "groundings, enterprises, and markets" (GEM). Groundings include the supply determinants, enterprises include the structural determinants of production efficiency and markets or demand determinants include local markets and access to external markets. The GEM model seeks to explain what it takes to make an innovation cluster competitive and successful. The characteristics of regional innovation systems are contained in the overall competitiveness framework. The methodology develops simple scoring criteria for each of the six determinants that relate to the overall competitiveness of the cluster and establishes a heuristic competitiveness function (called GEM assay) that captures the substitution/complementarity relationships among the determinants. The indicators of each determinant can be of a qualitative (scoring) or quantitative nature (statistical data). The determinants are arranged in a hexagon radar, with scores from 1 to 10 attached to each of them. The overall GEM score of a cluster results from the hexagon space covered by the specific shape.

# 4    Identifying Viable Future Industries – A new Approach Aiming at the National Level
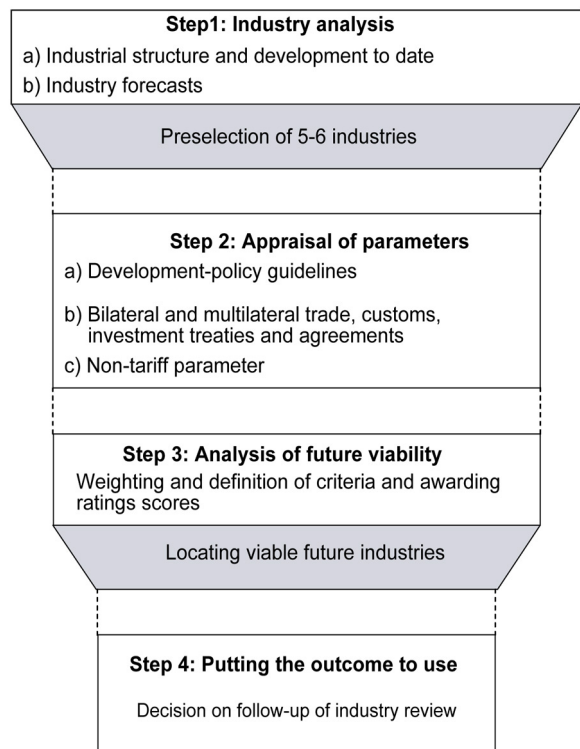
In 2005, GTZ commissioned the German consulting company Regionomica to develop a method for identifying viable future industries. The development of this method is part of the GTZ sector project "Innovative Tools for Private Sector Development".

According to Regionomica "this industry review is a tool for identifying industries with innovatory and development prospects in developing countries and is intended for use in project appraisals as part of programmes under the developmental priority of sustainable economic development." (Mahnke, 2006). This means that the tool has a clear developmental perspective to inform donor agencies what sectors they should focus on when designing an economic development programme for a specific developing country.

The GTZ tool consists of a multi-step approach to narrow down the industries to a few most viable and most desirable sub-sectors in the context of development work. Figure 2 below shows the various steps included in this approach.

**Figure 2:**
**Steps for Identifying Viable Future Industries**
Source: Mahnke, L. (2006)

**Step1: Industry analysis**
a) Industrial structure and development to date
b) Industry forecasts

Preselection of 5-6 industries

**Step 2: Appraisal of parameters**
a) Development-policy guidelines
b) Bilateral and multilateral trade, customs, investment treaties and agreements
c) Non-tariff parameter

**Step 3: Analysis of future viability**
Weighting and definition of criteria and awarding ratings scores

Locating viable future industries

**Step 4: Putting the outcome to use**
Decision on follow-up of industry review

Step 1 'Industry Analysis' mainly relies on statistical data on employment and gross value added at the national level. The relative shares of these statistical parameters in specific industries at the national level of the same parameters are computed and the development trends of sub-sectoral employment and value added for the last 5-10 years observed. Only if statistical data availability is insufficient, qualitative expert opinions are collected.

Next, the national shares (employment, value added) of pre-selected industries are compared to international shares. The international ratios could be in a global context or in the context of the same geographical region, e.g. Southeast Asia.

Step 1 also takes industry and sector forecasts and predictions into account. This sub-step consists of more qualitative judgements about the future prospects of industries than quantitative data. And the assessment is done at the international level rather than on the national level.

Based on the above described sub-steps and in order to arrive at a pre-selection of five to six industries, the analysts need to answer five questions that relate to: the industry representation in the national economy, the record of continuous or partial growth or constant development, industry performance compared with neighbouring countries or the region, the medium-term to long-term forecasts for an industry, and future expectations of the demand for products in this industry. Those industries that mostly receive the answer 'yes' will be selected for further analysis.

In step 2 the framework conditions of each industry are analysed. This includes development policy guidelines, bilateral and multilateral agreements on trade, customs and investments for specific sectors and non-tariff parameters (e.g. regulatory and administrative industry framework). The information to conduct in the analysis of step 2 can be obtained through reviewing official documents and through expert interviews.

Finally, step 3 consists of a scoring exercise along 5 'clusters of criteria'. Each cluster contains between 3 and 6 criteria. Depending on the industry analysed the clusters are weighted among each other and the criteria in each cluster are weighted in relation to each other.

The 'clusters of criteria' are:

- Prospects of the labour force

- National development prospects for the industry

- International competitiveness

- Innovation

- Ensuring environmental sustainability

In the end, each pre-selected industry receives an overall score rating on its future viability on a 5-point scale. The scoring is conducted by an expert panel. The overall industry scores serve as a basis for the final selection of industry sectors for development work in step 4.

According to the information available to the author, this GTZ-Regionomica tool has been applied twice: in Vietnam (Regionomica, 2006) and in the Philippines.

In conclusion, the tool used to identify viable future industries by GTZ and Regionmica shows the following main features:

- Suitable for an analysis on the national level, not the regional or local level

- Drawing on quantitative data and on qualitative expert opinions

- Main quantitative data utilized are employment and value added. It does not look at trade or investment data

- Strong emphasis on desktop research, particularly in steps 1 and 2

- Participatory elements are introduced through supplementing interviews in steps 1 and 2 and through the final expert scoring exercise

- It can equally be used for manufacturing industries and service sub-sectors.

- The intensive desktop research makes this approach a rather multi-week or even multi-month exercise and it is thus not considered to be rapid

# 5 Regional Economic Potential Study – A New Approach Aiming at the Regional Level

The method Regional Economic Potential Study was developed by mesopartner in cooperation with the Vietnamese consulting company MCG in Vietnam in 2006. It was immediately pilot-tested in three locations in Vietnam, the secondary centres in the country (Hai Phong, Da Nang and Can Tho). In 2007, MCG applied the same approach with some pro-poor modifications in Tra Vinh province in Vietnam backstopped by mesopartner. Also in 2007, mesopartner used the approach as one of three steps to develop a regional development strategy for the region Solo Raya in Southern Central Java, Indonesia.

## 5.1 Rationale of the Methodology

The method Regional Economic Potential Study is primarily based on two sources:

- Analysis of export data in the global market context, as was used frequently in Brazil in the nineties (Meyer-Stamer, 2000; IEDI ,2000).

- 'Learning form Global Buyers' approach by IDS in Sussex (Schmitz; Knorringa, 1999)

In order to identify the economic potentials of a region, international competitiveness plays a crucial role. The key questions for a donor em-

barking on a development programme or regional government ambitious to support the regional economy are: what are the products to promote nationally and particularly internationally? What sub-sectors to choose for attracting private investment? What sub-sector producer to link up with national and international intermediaries and buyers downstream the value chain?

Why do we mainly focus on global markets and international demand to measure the economic potential of the region? There are several reasons. First, we have little choice but to start with some kind of official data to make a first selection. Looking at the development of these data over a period of at least 5 years should indicate future growth trajectories and thus economic potential. The data that are most suitable to meet this requirement are local or national trade data, export data or investment data. As domestic trade data are often not available on the regional and much less on the local level and investment data are often incomplete and mostly available only in a very aggregated form, we need to rely on export data and thus on the global market perspective (Meyer-Stamer, 2000).

Second, by interacting with foreign buyers and customers, producers in developing countries are exposed to a level of sophisticated demand that they usually do not face in their home market, yet that stimulates them to upgrade (partly with the support of the global buyers and/or local government), to become more competitive, explore much bigger markets and enter market segments where they can differentiate themselves. If a multi-year series of statistical export data tell us that these producers manage to maintain their global trade relationships and to survive amid fierce international competition, we can get an indication of their level of competitiveness on international, but therefore also on domestic markets.

Third, looking at international trade relations also gives the opportunity to tap into the unique ability of global buyers to compare producers of the same product all over the world and assess their competitiveness according to pre-defined critical success factors (what are buyers looking at when assessing the quality of their suppliers?). Such assessment intro-

duces the views of buyers vis-à-vis producers who not only provide the cheapest or best quality products but also meet other critical success factors that keep their buyers ordering goods with them (Schmitz et al., 1999). If the interviews with buyers and local producers additionally reveal that there is a substantial degree of support from buyers towards producers in terms of upgrading capacity and product quality (maybe even accompanied by some investment), we have an additional indication for the future economic potential of a sector. Tight support from international buyers could indicate that a sector shows future potential and enjoys a positive outlook.

## 5.2 Description of the Methodology

The Economic Potential Study aims to achieve three results (i) identification of the sub-sectors/economic areas in which a region shows a potential competitive edge in global markets; (ii) identification of the main potentials, threats and current issues hampering global competitiveness of the identified areas; and (iii) looking for stakeholders' recommendations on how to improve the performance of the pre-selected sectors. A summary of the approach of the Economic Potential Study is highlighted in the following figure:
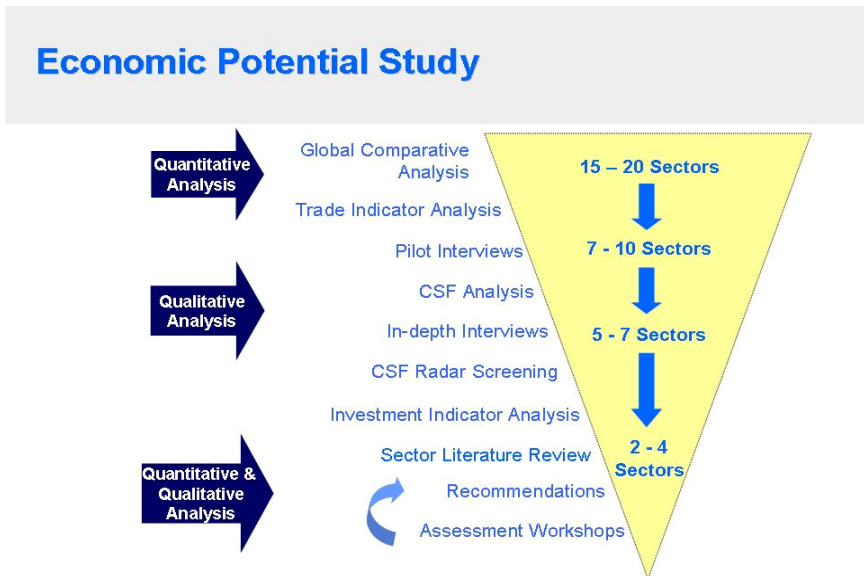
| 1. In-depth desk research | Identification of 10-12 existing and emerging sub-sectors with regards to SME development and high trading volume |
| | Identification of 5 – 7 products and services with stable growth trading over 5-6 recent years |
| | Identification of 3 – 4 products and services, which appear nationally and internationally competitive |
| 2. Field research (Interviews with Buyers & Producers) | Closer assessment of the competitiveness of 3 - 4 products based on assessment of Critical Success Factors / Learning from Global Buyers |
| | Assessment of institutional and policy framework, including supporting industries |
| | Initial identification of linkages to exporters and international buyers |
| 3.Reporting | Compiled analysis of the international competitiveness of products and sub-sectors |
| | Initial recommendation in designing interventions |

**Figure 3: Methodological Approach of Economic Potential Study**
Source: mesopartner

Typically, the study is conducted in three phrases (see Figure 4 below):

1. In-depth desk research conducted at the beginning, in which statistical production, trade and investment data of the locality or region are examined and aggregated for the specific region resulting in a number of most important growth areas;

2. Field research in the location or region and in major cities of the country, narrowing down the number of potential sectors based on the buyers' assessment of firms' capacity and performance to meet the changing demand, and on the assessment of industry capacity to meet requirements in volume and quantity; and

3. In the 3rd phase, comparing current and potential global demand with current capacities and structures. The identified performances and shortcomings are then presented in a feedback workshop to local/regional stakeholders. The 3rd phase is concluded by the preparation of a comprehensive report, which summarizes the results of all activities conducted throughout the research on the economic potentials.

## Economic Potential Study

| Quantitative Analysis | Global Comparative Analysis | 15 – 20 Sectors |
|---|---|---|
| | Trade Indicator Analysis | |
| | Pilot Interviews | 7 - 10 Sectors |
| Qualitative Analysis | CSF Analysis | |
| | In-depth Interviews | 5 - 7 Sectors |
| | CSF Radar Screening | |
| | Investment Indicator Analysis | |
| Quantitative & Qualitative Analysis | Sector Literature Review | 2 - 4 Sectors |
| | Recommendations | |
| | Assessment Workshops | |

**Figure 4: Steps and Activities in Economic Potential Study**
Source: mesopartner

Phase 1

During the first phase of the study, desk research is conducted using information collected from different sources including regional statistics, national statistics and international trade statistics (International Trade Centre and WTO). Based on such information, a comprehensive analysis is carried out to identify the strongly growing areas of the regional economy. The world demand and the national demand trends are also considered for the relevant sub-sectors. The following list summarizes the criteria used to identify the pre-selected sectors:

- Sectors with high export volume over last 5 years

- Current & potential economic significance regarding jobs provided

- Development of regional product share at regional export

- Development of regional product share at national export

- Development of regional product share at world market for same product

- Development of product share at world market for all products

- Growth trends of services sectors

- Development capacity and outlook

The selection process is conducted in four stages.

First, the regional export revenues for the previous five years are examined, and accordingly the largest export-earning products of the region identified. From this analysis, we can observe growing or shrinking trends of the products at the regional level.

Second, we examine the national trends of those relatively strong export sectors, i.e. shares of those major export products in the region versus the total product export revenue of the country. The analysis shows the shrinking or growing trends of the sector at national level.

Third, after looking into trends of the sector at both regional and national level, the world market demand is taken into consideration. It is evident that even though the production and export of a product increases in the regional market, its share in world trade might decrease. The possible reason for this scenario is that the world is demanding more of a certain product and at the same time other countries are producing and exporting more of the same product, thus the export volume of regional/national products becomes smaller in the world market. This analysis aims to analyse whether the world demand for the products produced and exported from the region is shrinking or expanding.

Fourth, we conduct research on the significance of the respective products in a global context, i.e. whether the overall world trade of the selected products grew or shrank during the previous five years. The following matrix shows the possible combination of development patterns of products at world markets. Those regional products positioned in the upper right quadrant are considered as having a high international competitiveness in the future.

## Assessment of international competitiveness of regional products

| Solo Raya | Products showing growing share at world market | Products showing shrinking share at world market |
|---|---|---|
| Export products of region with growing share at world market | + + | + - |
| Export products of region with shrinking share at world market | - + | - - |

**Figure 5: Matrix of development patterns of products at world markets;** Source: mesopartner

In addition to the producing and trading of goods, the provision of services also contributes to the development of a regional economy. Service sectors cover a broad array of services including, among others, telecommunications, banking and insurance, distribution, tourism and travel-related services, and transportation. As there are no trade data available for service sectors, we rely on GDP-related and employment data.

Phase 2

In line with worldwide practice on the assessment of enterprises' international competitiveness (Schmitz; Knorringa, 1999), the consultants formulate a set of sector-specific critical success factors based on information from desk research, on previous experience with similar studies and interviews with country-based international buyers focusing on the selected sectors.

Subsequently, those critical success factors are used for interviews with international buyers who then assess the current performance of the sector producers in the region. At the same time, regional enterprises are also requested to self-assess their performance based on the same set of critical success factors. A five-point scale for each of the critical success factors is used for the assessment. The same approach is used for all subsectors pre-selected in phase one of the economic potential study. The results are depicted in a radar chart comparing the assessment results of global buyers and intermediaries with the self-assessment of regional producers/service providers. The resulting GAP analysis shows in what critical areas regional enterprises need to improve in order to stay competitive.

Further questions in the interview guidelines for buyers and for producers address topics like framework conditions, infrastructure and sectoral government support, as well as technical assistance provided by global and domestic buyers. During the interviews with regional producers and buyers the consultants also ask the respondents to indicate "one intervention that could improve the performance of your sector in the region dramatically".

Phase 3

As part of the methodology, a feedback workshop in the region is organised before the final reporting. The workshop aims at collecting comments and feedbacks of regional actors from the private and public sector. The specific objectives of the workshop are to:

- review the interim results of the Economic Potential Study

- find confirmation for the most important growth sectors in Solo Raya based on growth trends in global and regional markets and on the CSF assessment

- present and discuss recommendations on most important institutional measures, promotion measures and business development measures that are able to improve productivity and performance in the pre-selected sectors

*5.3 Pilot Applications of Economic Potential Studies (2 Examples)*

**Pilot Application in Vietnam (2006)**

In the pilot test in Vietnam in 2006, the consultants succeeded in elaborating comprehensive and significant studies on the economic potentials of all three provinces in a period of four months (April – August 2006). This included global comparative analyses of pre-selected sub-sectors, sets of CSF for those sub-sectors, the assessment of the CSF by international buyers and local producers (compiled radar screens) and first draft recommendations on how to strengthen sub-sectors with economic potential.

Upon completion of the first draft of the report, each province was requested to screen and provide comments and questions on the report. Subsequently, feedback workshops were organised with relevant local stakeholders including government agencies, chambers, and enterprises. A summary of the main findings and recommendations was prepared in a presentation format to be sent to all participants prior to the workshop. This had proved to be extremely useful as local stakeholders had ade-

quate time to study the materials resulting in sensible inputs and comments on the new methodology during the workshop.

Local government officials who typically use different analysis tools for their planning efforts at policy level stated that this approach has opened up a different way to look at economic sectors. Traditionally, policy makers at the provincial level in Vietnam simply extrapolate development trends of sectors which then serve as input for planning and allocating resources. With this new approach, the local authority could clearly see the level of development of their economic sectors within a bigger picture – the world market. The newly elaborated data had them reconsider the future potential of some sectors that are experiencing declining world market trends, though continue to expand in their province. Furthermore, the assessment of the general framework conditions by local enterprises generated important discussions among government officials. In one province, the representative of the Department of Science and Technology agreed with the assessment of enterprises showing that access to technology in their province leaves much room for improvement. In another province, the representative of a local association explained that the poor assessment of the association's quality was due to inadequate communication of the role of the association.

Local enterprises found the comparison of CSF assessed by themselves and by international buyers and intermediaries most interesting. They had never sought a formal assessment by their buyers and hardly tried to identify the factors determining their success and how satisfactorily they meet those factors. The independent assessment revealed the gaps in meeting the CSF from both perspectives, that of local enterprises and that of international buyers. This clearly shows the areas to be improved in the future (see Figure 6 below).

**Economic Potential Study: CSF Analysis (Gap Analysis)**

Wooden Furniture: Example Da Nang (2006)

| Sub-Sector | Critical Success Factors |
|---|---|
| Wooden Furniture | 1. Reputation |
| | 2. Price |
| | 3. Punctual Delivery |
| | 4. Technology & Equipment |
| | 5. Access to materials |
| | 6. Innovativeness |
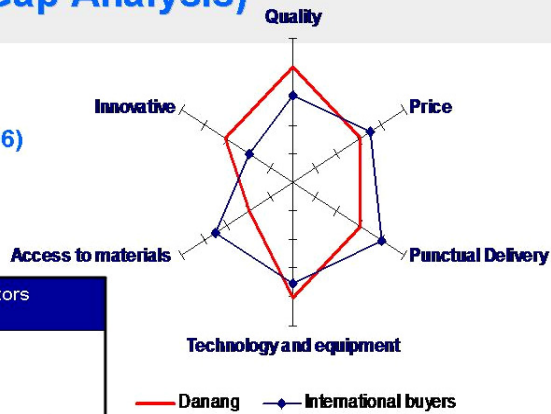
**Figure 6: Example of a compiled radar screen (wooden furniture in Da Nang);** Source: mesopartner

Following the analysis of each sector, local stakeholders were requested to rank the sectors according to their priority for project intervention. The consultants had proposed their own priority list based on three main criteria: relevance (size and importance), growth potential (competitiveness) and intervention potential (by VPSSP). The participatory facilitation technique Metaplan was used for this exercise. The participants discussed and prioritised two out of the four or five selected sectors in each province. The consultants then consolidated and presented the results. In all provinces, the sector selection by local stakeholders concurred with what was suggested by the consultants. In addition, local actors proposed one newly emerging sub-sector in each location, such as electronics in Da Nang.

Focusing on the prioritised sectors, the participants again used the Metaplan technique to brainstorm on the activities most needed to strengthen the sectors. For instance, tourism is one sector selected by two out of three provinces. The suggested interventions are to assist the province in identifying and developing provincial tourism products, to develop a

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tourism promotion strategy and to strengthen the role of the local tourism associations. Fish processing is another sector prioritised by one province, where a value chain analysis for the fishery sector has been suggested by local stakeholders.

**Pilot Application in Solo Raya Region, Indonesia (2007)**

In 2007, mesopartner had an opportunity to combine and sequence some of its own approaches and tools in an innovative way. The challenge was to develop a regional, inter-district strategy for economic development in the Solo Raya region in Indonesia. The region consists of the city Surakarta (Solo) and six districts. The traditionally most important economic sectors in the region are agriculture and agro-processing, textile and garment manufacturing as well as furniture production. The densely populated region has a population of about 6 million.

mesopartner designed a strategy formulation process that is highly interactive, participatory, primarily bottom-up and pursues a four step approach (see Figure 7 below):

- Compilation of draft district strategy papers for each district based on district profiles, a Business Climate Survey conducted in 2005 as well as data and development plans of the districts

- Regional Economic Potential Analysis to result in a study on the competitiveness of the region Solo Raya and its promising economic sectors in the national and international context.

- Regional foresight process to explore the future of the region beyond the next 5 years by using the foresight method scenario writing in a workshop setting.

- The district strategy papers, the regional economic potential study and the results of the foresight-process served as input for the development of a regional economic development strategy for Solo Raya.
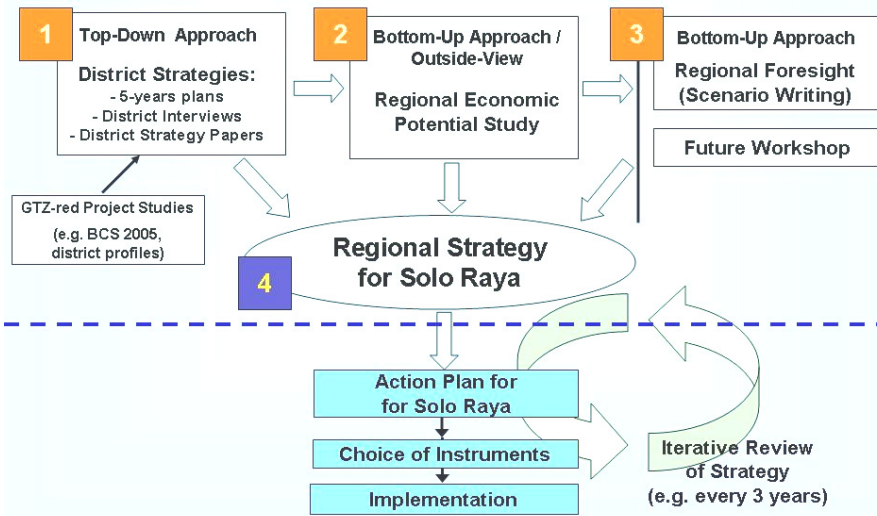
**Figure 7: Methodological Approach to Regional Strategy Development in Solo Raya;** Source: GTZ-RED (2007)

In the context of this approach, the Regional Economic Potential Study (step 2) aimed at identifying and finding an agreement on a certain number of focal sub-sectors for the economic promotion strategy for Solo Raya. The study has shown that there are three labour-intensive sectors that have the potential to remain and even become internationally more competitive and thus secure the current number of jobs and possibly create more jobs. These three sub-sectors in Solo Raya are textile and garment, wooden and rattan furniture and handicraft. Besides, agriculture and agricultural processing demonstrated its importance for the domestic market. The relevance of the equally important tourism sector had been proved through the elaboration of a separate development strategy.

The Regional Economic Potential Study followed the same approach as in Vietnam in 2006 and consisted of three phases: Desktop research on trade-relate data, interviews with buyers and regional producers and a feedback workshop followed by final reporting.

*5.4 Assessment and Limitations of the Methodology*

A lesson learned study on the tools developed and achievements made in the EU-VPSSP in Vietnam gives the following assessment of the Economic Potential Study piloted in this programme (Kuesel, Linh, 2007): "The methodology of the Economic Potential Studies constitutes an interesting attempt to link international competitiveness with a local development perspective, and combines quantitative and qualitative assessment methods. It constitutes an innovative approach which aims at addressing the lack of methodologies suitable for the identification of sectors".

Despite this positive assessment, during the initial applications the economic potential study faced a number of limitations and difficulties that could partly be overcome by an improvement and further development of the methodology. The most essential shortcomings are described below.

The consultants need to start with some quantitative analysis, but have to review available data very critically. The availability and quality of statistical data at the regional level can constitute a major problem in the first step of the study. Trade and investment data are often outdated, i.e. the previous one or two years are sometimes not published yet. Also, regional and national industry classifications on the second and third digit level in development countries do not always match the standard classification of the ITC. This handicaps the calculation of market shares in international markets. Moreover, statistical data of locations and regions in developing countries happen to show obvious failures in statistical data processing.

Starting by analysing trade and investment data of economic sectors gives a strong bias towards manufacturing sectors, as for services sectors those statistics are hardly available. We usually also consider service sectors based on a different argumentation, such as development tourist arrivals for the tourism sector. This, however, is not completely consistent with the overall methodology.

Although the objective of the assignments was to identify the sub-sectors/economic areas of a region having a potential competitive edge in global markets, some stakeholders usually envisage that the consultant will identify newly emerging sub-sectors for economic promotion of the region. Based on the approach, the first phase of identifying sub-sectors is conducted based on official data available at regional, national and international level. Unless the consultants are able to obtain any formal set of data on the so-called newly emerging sub-sectors, they will not be able to conduct further research on such sub-sectors, particularly considering the typically limited resources and time available to conduct such a study.

# 6    Conclusions and Recommendations

Looking at the general methodological framework shown in chapter 3, both relatively new approaches described above can be grouped into the cluster approach (or here better called the value chain approach) and both are combinatorial methods combining quantitative and qualitative information sources to identify economic potentials. No doubt, drawing on statistical data and expert opinions makes the studies more valid, more significant and "more productive" (ESCWA, 2001).

The Regional Economic Potential Study includes elements of a variety of methodologies described in chapter 3 and depicted in Figure 1 above. It has elements of the first line indicator 'market shares' of the Competitiveness Approach in terms of considering export data and inbound foreign direct investment. The first step, trade data analysis, shows similarities to the trade-based 'input-output analysis', but with a strong focus on trade output analysis. Steps 2 and 3 of the approach are purely qualitative research very much in line with the basic qualitative method 'expert opinions' through interviews and workshops with local actors and global buyers. And in step 2, it utilizes scoring exercises and radar screening similar to the methodologies of 'Multi-Sectoral Qualitative Analysis', 'Spider Diagram and Indexes' and 'GEM model'.

But what can we learn from all the various other tools to improve the Regional Economic Potential Study methodology-wise in order to overcome the limitations described above? Here, we should keep in mind that the methodology should remain relatively rapid and participatory. The recommendations below particularly address step 1 of the study, i.e. the initial screening of industries at the regional level, which is so far mainly based on analysing trade statistics.

In order to reduce the problem of limited availability and reliability of statistical trade data at the regional level, we need to draw on a wider range of data. Export data will remain crucial also in future applications for calculating national and world market shares. But in parallel, more emphasis should be put on investment data and employment data of regional sectors. An interesting approach is the location quotient comparing relative regional employment in a given sub-sector with relative national employment in the same sector and thus providing evidence about regional specialization in this sub-sector. Investment data should not only be sourced in regional statistics, but also in interviews with key sector representatives. Both employment data and investment data will also help to include service sectors in the initial data processing from the beginning.

In order to better take newly emerging sub-sectors and their future competitiveness into account it is recommended to introduce 'growth dynamics' along the lines of the 'Spider Diagrams and Indexes' tool. The growth dynamics parameter could be based on the rates of change of key statistical data over the years, such as export, investment, location quotient and relative wages. Those sectors with the highest rate of change of several indicators could be considered emerging. Certainly, some economic activities of those emerging sectors need to be underway already.

A more critical review of meso-policies and meso-institutions at the regional level could be carried out at the beginning of the study. This means that the first step of the analysis would also include a short series of initial interviews with regional stakeholders and would not remain a purely desk-top research effort as before.

In addition, or as alternative to interviews at the outset of the analysis, one option is to experiment with a workshop format on Systemic Competitiveness in order to gauge the production system in the region. This would not only cover meso-policies and meso-institutions at the regional level, but also a first brainstorming on sub-sectors with potential (micro level), performance of regional government (macro level) and the interest and organizedness of the regional community regarding economic development (meta level).The participants in this workshop would be key informants from different sectors (public sector, private sector, academia, others), i.e. a "focus group". A small number between seven and ten individuals would be ideal. Incidentally, this workshop format as a technical part of the Regional Economic Potential Study was suggested by Jörg Meyer-Stamer during a brief brainstorming in February 2006, but has not been integrated into the methodology so far.

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