

Selecting Target Market Using ‘The Analytic Hierarchy Process (AHP)’ Model: TarMAR

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Nations are working hard to extend their exports; resulting in increasing competitiveness of the world’s economic environment. Therefore, selecting the appropriate target market is crucial. On the other hand, it is extremely difficult to identify a proper target market due to the complexity of the problem having many attributes. Based on the ‘directional policy’ matrix, there are two critical parameters to select a proper target market. These are: ‘target market attractiveness’ and ‘own competitive strength’ in the market. But these two critical parameters have many objective and subjective variables. Some of these parameters can be measures such as target market size, annual growth rate, market share, distance, etc. while some of these are subjective aspects and cannot be measured such as product market conditions, tax regime, financial system, institutions, and infrastructure quality, etc. The difficulty is to compare these subjective parameters.

This application aims to use ‘The Analytic Hierarchy Process (AHP)’ to identify the best set of the target market for a selected product range and optimize export efforts.

Keywords: analytic, attractiveness, competitive, hierarchy, market, strength, target

INTRODUCTION

There is no doubt that nations are obliged to export to increase the welfare of their citizens. The world economic environment is getting more and more competitive since almost all nations are working hard to extend their exports. Thus optimizing exporting affords and selecting appropriate target market is crucial. If the target market is not properly selected, marketing efforts can be wasted.

On the contrary, it is extremely difficult to identify a proper target market as the problem is too complex with many parameters. To overcome this constraint, ‘expert opinion’ is widely used to identify a proper target market for a given product range.

To solve this issue analytically, the problem is defined as a two-dimensional ‘The Analytic Hierarchy Process (AHP)’ model on the ‘Directional Policy Matrix’. This model is called ‘TarMAR’[®].

DIRECTIONAL POLICY MATRIX

The Directional Policy Matrix (DPM) is a framework that can be used to classify and categorize an organization's business activities in terms of its strengths, capabilities, or market position and the way it perceives the attractiveness of the markets. It can also be called 'GE or McKinsey Matrix'.

Based on the 'Directional Policy Matrix', there are two critical parameters to select a proper target market. These are; 'Target Market Attractiveness (TMA)' and 'Own Competitive Strength (OCS)' in the market.

For a given TMA and OCS pair, the 'Directional Policy Matrix' provides different market behavior for a given product range as can be seen from Figure.1.

FIGURE 1
DIRECTIONAL POLICY MATRIX

Target Market Attractiveness ↑	Fight for Leadership	Try Harder	Double Or Quit
	Aim for Growth	Proceed with Care	Phased Withdrawal
	Cash Generator	Phased Withdrawal	Ready for Divestment
	← Own Competitive Strength		

Marketing behaviors for a given TMA and OCS pair are as follows:

High TMA – High OCS:	'Fight for Leadership' Invest and increase strategic marketing activities to achieve market leadership.
High TMA – Moderate OCS:	'Try harder' Increase competitive strength in the attractive market.
High TMA – Low OCS:	'Double or Quit' (A gambling term) An agreement that the player who owes money will owe twice as much if they lose, but will owe nothing if they win.
Moderate TMA – High OCS:	'Aim for Growth' Growth marketing strategies are applied.
Moderate TMA – Moderate OCS:	'Proceed with Care' Manage selectivity for earnings strategies.
Moderate TMA – Low OCS:	'Phased Withdrawal' Ready for managing withdrawal strategies.
Low TMA – High OCS:	'Cash Generator' If there is no cash generation in this segment, it is assumed that managerial problems exist.
Low TMA – Moderate OCS:	'Phased Withdrawal' Ready for managing withdrawal strategies.
Low TMA – Low OCS:	'Ready for Divestment' Review for exit strategies and apply if and when applicable.

TMA and OCS have many objective and subjective attributes and extremely difficult to quantify.

Target Market Attractiveness

Market attractiveness is a concept that contains many factors to determine whether or not a market might be a profitable one for investment. As a term, it is most well-known for its inclusion in the Directional Policy Matrix, which was intended to help companies as well as nations to assess their product or business portfolios vis-à-vis their strengths. The more attractive a market is assessed to be, the higher the profit potential.

The factors that contribute to market attractiveness can vary depending on what is important in question, but some common factors are as defined in the model: current market size, market growth rates, economic environment, and institutions & infrastructure.

Market size and growth rate are two basic factors when evaluating a market. The larger the market is, the more opportunities exist to sell a product. This means a higher potential for profitability, even at a lower profit margin. In a market of any size, however, it is also important to consider the growth rate. A non-growing market means that the revenue potential is finite; while a market with a low growth rate is probably a saturated one, with many competitors in the same space, fighting for the same sales. This will lead to a lower market share for all participants, as well as lower margins. The market growth rate can be considered in two ways; the last known yearly growth rate as short-run attractiveness and the last five years growth rate as long-run attractiveness.

The economic environment consists of macroeconomic stability and product market. ‘Macroeconomic Stability Index’ in ‘The Global Competitiveness Report’ captures the level of inflation and the sustainability of fiscal policy. Moderate and predictable inflation and sustainable public budgets reduce uncertainties; set returns expectations for investments and increase business confidence—all of which boost productivity.

‘Product market Index’ in ‘The Global Competitiveness Report’ captures the extent to which a country provides an even playing field for companies to participate in its markets. It is measured in terms of the extent of market power, openness to foreign firms, and the degree of market distortions.

Institution Index on ‘The Global Competitiveness Report’ capture; security, property rights, social capital, checks and balances, transparency and ethics, public-sector performance, and corporate governance.

Weak institutions continue to hamper competitiveness. Strong institutions are a fundamental driver of both productivity and long-term growth. Their benefits extend well beyond economics, affecting people’s well-being daily.

Infrastructure Index on ‘The Global Competitiveness Report’ captures the quality and extension of transport infrastructure (road, rail, water, and air) and utility infrastructure. Better-connected geographic areas have generally been more prosperous. Well-developed infrastructure lowers transportation and transaction costs and facilitates the movement of goods and people and the transfer of information within a country and across borders.

Competition always exists in a market, and the competitors can determine how successfully another company can enter the same market space. Some things to consider about competitors are their size, how aggressive they are towards other competitors, any advantages they may have, the number of competitors, and how much market share they currently have. A market dominated by a strong single-player might be unattractive because that competitor is likely to act aggressively toward a newcomer and it might dominate necessary contracts for suppliers or distributors. Alternatively, a marketplace with many small players may still be ripe for one to emerge as the dominant player.

One other aspect of the model is to determine competition type in a target market; oligopoly, moderate or perfect competition. It is calculated based on competitors’ market share.

Competitive Strength

Competitive strength is a weighted assessment of the strengths and weaknesses of an individual company or nation and its current and potential competitors.

The factors that contribute to competitive strength can vary depending on what is particularly important in the specific context. But some common factors are the market shares of the target market, the export growth rate on the target market, own import ranking, and geographical distance to the target market.

The market share is a critical factor to assess competitive strength in a target market. The larger the market share is the more strength and domination exists on the target market for a given product. Similarly, a higher export growth rate on the target market indicates one's strength in the target market for a given product range. The export growth rate can be considered in two ways; the last known yearly export growth rate as short-run strength and last five years export growth rate as long-run strength.

A geographical distance to a target market is also an important factor for transportation costs as well as timing on target.

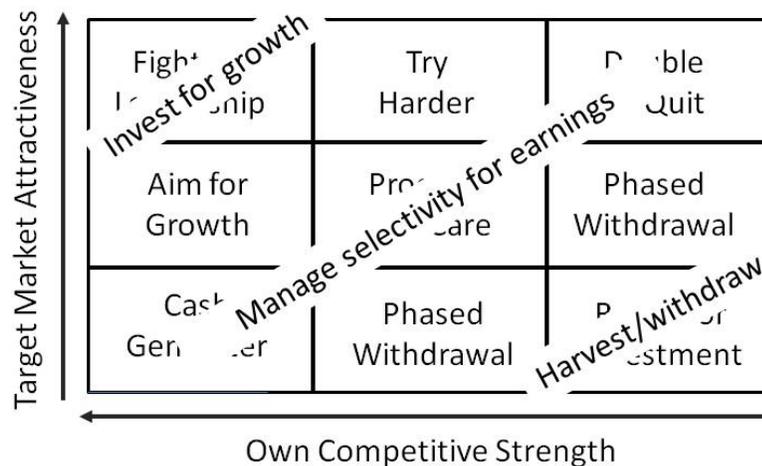
Assessment of 'Directional Policy Matrix'

Three main choices of market strategy for a given product range can then be identified from the matrix, and their potential consequences can be analyzed.

These strategies are;

- **'Invest For Growth'**– for product/market activities located in the upper left quadrant of the matrix
- **Manage Selectivity For Earnings** – for product/market activities located from the bottom left to the upper right of the market.
- **Harvest/Withdraw** – for product/market activities located in the bottom right-hand quadrant of the matrix

FIGURE 2
DIRECTIONAL POLICY MATRIX



The target market for the nations for a given product range is the upper left quadrant of the matrix.

The problem is to quantify two parameters, namely; 'Target Market Attractiveness' and 'Own Competitive Strength' with various objective and subjective components.

Some of these can be measured such as target market size, annual growth, own market share, distance to the target market, etc. while some of them are subjective aspects, therefore cannot be measured like tax regime, political stability, macroeconomic stability, etc. The difficulty is to compare these subjective parameters.

Currently, the process that is called 'subjective' and 'expert opinion' methods are the ones that are used as all the attributes are defined.

However, 'expert opinions' may differ based on the expert's background and training. To solve similar complex problems 'The Analytic Hierarchy Process (AHP)' is introduced by Thomas Saaty (1980).

ANALYTIC HIERARCHY PROCESS

The Analytic Hierarchy Process is a method for formalizing decision making where there are a limited number of choices (candidate markets, here) but each has several attributes and it is difficult to formalize some of those attributes. By reducing complex decisions to a series of pair-wise comparisons, and then synthesizing the results; AHP helps to capture both subjective and objective aspects of a decision. In addition, AHP incorporates a useful technique for checking the consistency of the decision maker's evaluations, thus reducing the bias in the decision-making process.

The AHP considers a set of evaluation criteria and a set of alternative options among which the best decision or target market in this context is to be made. It is important to note that, since some of the criteria could be contrasting, it is generally wrong to say that the best option is the one that optimizes every single criterion; but rather than one which achieves the most suitable trade-off among the different criteria.

The AHP generates a weight for each evaluation criterion according to the decision maker's pair-wise comparisons of the criteria. The higher the weight is the more important the corresponding criterion. Next, for a fixed criterion, the AHP assigns a score to each option according to the decision maker's pairwise comparisons of the options based on that criterion. The higher the score is the better the performance of the option concerning the considered criterion. Finally, the AHP combines the criteria weights and the options scores, thus determining a global score for each option, and a consequent ranking. The global score for a given option is a weighted sum of the scores it obtained concerning all the criteria.

APPLICATION

Example 1

Product: Product. A
Scenario: North African Countries
Candidate markets: Morocco, Algeria, Tunisia, Libya, Egypt

Source of data for all attributes:

Target Market Attractiveness	
Market size	Trademap
Market growth rate (last year)	Trademap
Market growth rate (last 5 years)	Trademap
Economic environment	The Global Competitiveness Report
Institutions and infrastructure	The Global Competitiveness Report

Own Competitive strength	
Target market share	Trademap
Own market growth rate (last year)	Trademap
Own market growth rate (5 years)	Trademap
Our import ranking on target	Trademap
Distance to target market	Geographic data

Analysis Results

Based on TarMAR for a given data for all attributes, analysis results can be seen from Table 3 and strategic recommendations from Table 4.

Obviously, from a market attractiveness perspective, candidate markets split into two segments. Algeria, Morocco, and Egypt have relatively higher attractive market features. Alternatively, Tunisia and Libya have relatively low attractiveness for a given product range.

From a competitive strength viewpoint, the Algeria market has the highest value while Egypt has a lower value.

FIGURE 3
SCENARIO: NORTH AFRICAN COUNTRIES

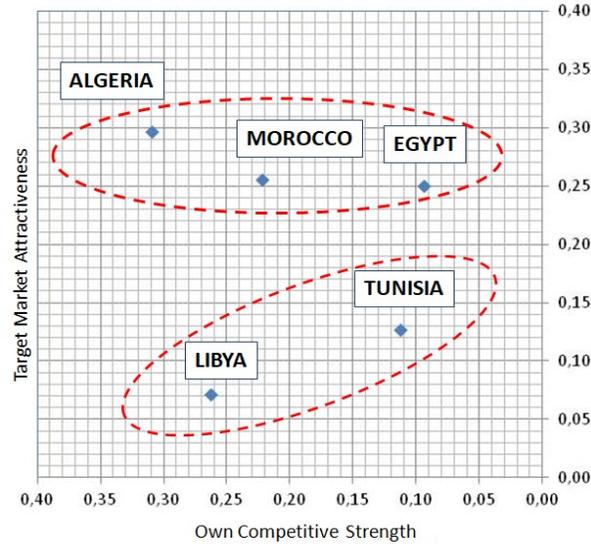
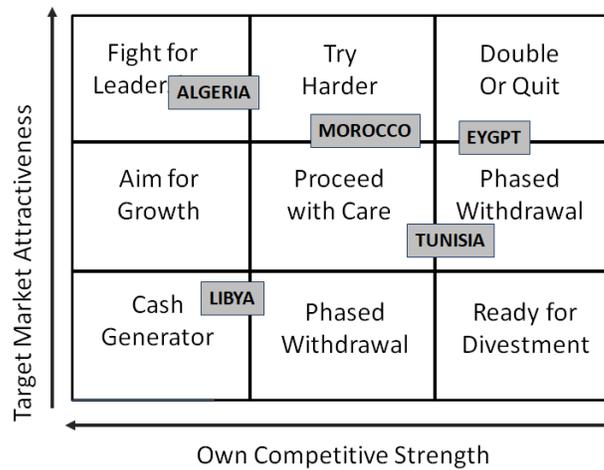


FIGURE 4
STRATEGIES: NORTH AFRICAN COUNTRIES



Strategic recommendations for a given product range:

- Algeria: ‘Fight for Leadership’ Fight for leadership
- Morocco: ‘Try Harder’ Increase competitive strength
- Egypt: ‘Double or Quit’ Double for all resources and efforts or quit
- Libya: ‘Phased Withdrawal’ Act with care and ready for divestment
- Tunisia: ‘Phased Withdrawal’ Act with care and ready for divestment

The TarMAR results for a given North African countries and a certain product range were also reviewed by a subject matter expert(s) and approved by them which is required such an analytical model.

Example 2

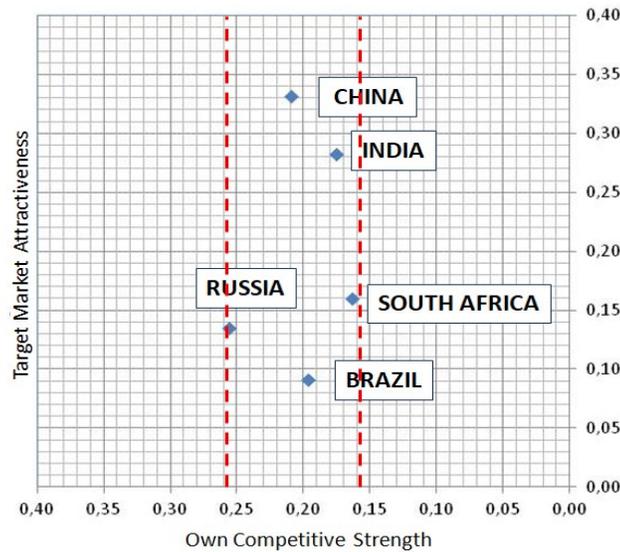
Product: Product. B
 Scenario: BRICS countries
 Candidate markets: China, India, Russia, Brazil, South Africa

The source of data for all attributes is the same as Example.1.

Analysis Results

Based on TarMAR for a given data for all attributes, analysis results can be seen from Table 5 and strategic recommendations from Table 6.

**FIGURE 5
 SCENARIO: BRICS COUNTRIES**



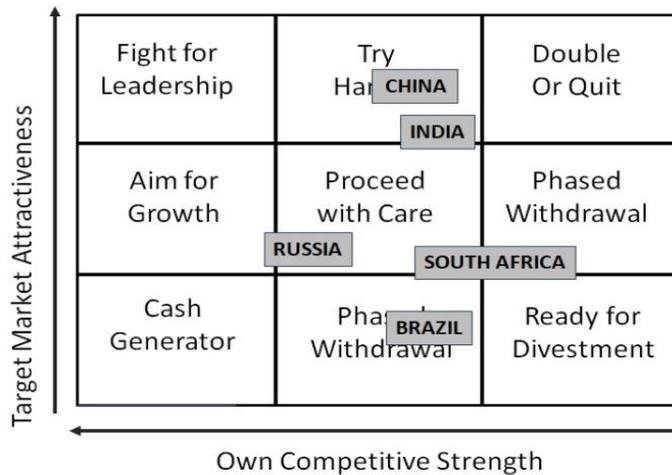
As it can be seen from a market attractiveness perspective, candidate markets vary significantly. China market has relatively higher attractiveness, while Brazil market is not as attractive for a given product range.

From a competitive strength viewpoint, there are no significant competitive strength differences in candidate markets. This can also be proven statistically.

Strategic recommendations for a given product range:

China:	‘Try Harder’	Increase competitive strength
India:	‘Try Harder’	Increase competitive strength
Russia:	‘Proceed with Care’	Act with care and follow opportunities
South Africa:	‘Proceed with Care’	Act with care and follow opportunities
Brazil:	‘Phased Withdrawal’	Act with care and ready for divestment

**FIGURE 6
STRATEGIES: BRICS COUNTRIES**



Each TMA and OCS figures for each target market are relative to each other for a given scenario. For this reason, each analysis's results need to be read in the context of the given scenario. The TMA and OCS figures for a certain target market are completely being different if the target market is taken for a different geographical scenario.

CONCLUSIONS

All resources are limited and scarce, including export efforts such as strategic marketing activities. Hence, if the export efforts are not optimized and aim for a proper target market; the efficiency of export activities decreases. On the other hand, it is extremely difficult to identify a proper target market as the problem is too complex with many subjective and objective parameters.

It is good that 'The Analytic Hierarchy Process (AHP)' is widely used since the 1980s for solving such problems.

Model TarMAR is introduced to identify the proper target market by using 'The Analytic Hierarchy Process (AHP)' on 'The Directional Policy Matrix (DPM)'.

There is no doubt that operational realism is also important in such analytical models. The TarMAR results for a given geographic area and product range were also reviewed by a subject matter expert(s) and approved by them.

The model can also be used to allocate and optimize strategic marketing efforts on selected target markets to get maximum benefit.

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