

IMPROVEMENT OF THE METHODOLOGY FOR ASSESSING THE EXPORT POTENTIAL OF TEXTILE INDUSTRY ENTERPRISES

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Annotation. In the context of global economic integration, an accurate assessment of the export potential of textile enterprises is a strategically important responsibility of each country. The textile industry, as one of the oldest and most strategically important sectors of the world economy, accounts for a significant portion of global trade turnover. This sector not only has the potential to create large jobs, but is also an important source of foreign exchange earnings for many developing countries. In particular, countries in the Asian region, including China, India, Bangladesh, Vietnam and Turkey, continue to occupy leading positions in the export of textile products. At the same time, identifying and assessing the export potential of textile enterprises is a complex process that requires multifactorial analysis.

Key words: export potential, market analysis, market segmentation, diamond methodology, demand factors, enterprise strategy.

Introduction. The Decree of the President of the Republic of Uzbekistan PF-158 dated September 11, 2023, on the "Uzbekistan – 2030 Strategy" specifically emphasizes goals and strategies such as strengthening the export potential of textile industry enterprises, sharply increasing the share of products with high added value in its structure, and comprehensively supporting exporters who bring national brands to foreign markets based on the idea of a "New Uzbekistan – a country of competitive products"¹.

It is known that in today's world, amid ongoing economic and political confrontations and intensifying conflicts, developing a well-thought-out and effective methodology for assessing the export potential of enterprises is becoming an integral part of long-term effective planning for the development of the national economy.

Analysis of Literature on the Topic. The "Diamond" methodology developed by Harvard Business School Professor Michael Porter in 1990 is a widely used theoretical framework for identifying and analyzing the key determinants of national competitiveness. This methodology is of great importance in assessing the export potential of textile industry enterprises². Furthermore, the research of world scholars such as B. Balassa, Charis M. Vlado, İsmail Bakan, and İnci Fatma Doğan was also studied and analyzed. Additionally, Uzbek scholars, including Doctor of Economic Sciences, Professor B.N. Navruz-Zoda, Professor Sh. Rakhmonov, B. Karimov, D. Kodirova, G. Khasanova, Sh.D. Ergashkhodjaeva, and I.B. Sharipov, have conducted research on methodologies for assessing enterprise export potential, providing in-depth analysis, ideas, and considerations in their scientific articles and books.

Research Methodology. Large textile enterprises exporting cotton yarn, grey fabrics (raw calico), thread on spools, eco-bags, and other textile products were selected as the research

¹ Sh.Mirziyoyev. Decree of the President of the Republic of Uzbekistan No. PF-158 dated September 11, 2023, "On the 'Uzbekistan – 2030' Strategy." 1-18p.

² M.Porter "Clusters and the new economics of competition", Harvard Business Review, (1998) vol. 76, no. 6, 77–90 p

objects. In applying an appropriate methodology for enhancing export potential at the enterprise, the following methods were used: modern management approaches, systematic and complex approach, functional approach, analysis and synthesis, monographic analysis, scientific abstraction, grouping of statistical data, comparative analysis, selective observation, and abstract-logical methods.

Analysis and Results. In this article, we attempted to explain the necessity of assessing export potential with the following series of factors:

Firstly, the intensifying dynamics of competition in global markets compel enterprises to continuously monitor their level of competitiveness.


Secondly, the effective utilization of international trade agreements and preferential tariff regimes requires the preliminary identification of export opportunities.

Thirdly, the application of scientifically based assessment methods is crucial for the state in forming and developing export promotion policies and support programs.

The purpose of this section is to provide a systematic analysis of the main methodologies used in assessing the export potential of textile industry enterprises and to study their theoretical foundations and practical application possibilities.

In this research, we provided individual definitions for each of the following 4 main methodologies and analyzed their advantages and disadvantages:

1. EPIT - for assessing the internal potential of an enterprise
2. RCA - for determining the overall situation of a country in this sector
3. TPI - for assessing position in international trade
4. ITC - for identifying promising markets

 **The EPIT** (Export Potential Index for Textile Industry) model is a new multi-dimensional index specifically developed to assess the export potential of textile industry enterprises. This methodology was created using Structural Equation Modeling (SEM)³.

Main Components:

- Resources - the enterprise's financial, human, and material resources
- Dynamism - adaptability to the market and ability to respond to changes
- Knowledge - level of technical knowledge, experience, and skills
- Innovation - level of novelty and technological development
- Sustainability - indicators of environmental and social responsibility

Calculation formula: $EPIT = f(\text{Resources, Dynamism, Knowledge, Innovation, Sustainability})$.

In mathematics, "f" essentially means "function." That is, the EPIT value is derived from a combination of the five main factors.

Practical calculation process:

Data collection stage:

Indicators for each component are identified

Scoring is done via questionnaire or expert assessment (on a 1-5 scale)

Determining weight coefficients:

The importance of each component is determined through statistical analysis

Example: Resources=0.25, Dynamism=0.20, Knowledge=0.20, Innovation=0.20, Sustainability=0.15

Final calculation:

$EPIT = 0.25 \times (\text{Resources score}) + 0.20 \times (\text{Dynamism score}) + 0.20 \times (\text{Knowledge score}) + 0.20 \times (\text{Innovation score}) + 0.15 \times (\text{Sustainability score})$

³ <https://www.emerald.com/insight/content/doi/10.1108/k-11-2023-2485/full/html>

For example, if an enterprise has the following scores: Resources: 4.2, Dynamism: 3.8, Knowledge: 4.0, Innovation: 3.5, Sustainability: 3.9

$$\text{EPIT} = 0.25 \times 4.2 + 0.20 \times 3.8 + 0.20 \times 4.0 + 0.20 \times 3.5 + 0.15 \times 3.9 = 3.875$$

This result indicates that the enterprise's export potential is at a high level (on a 5-point scale).



RCA (Revealed Comparative Advantage Balassa Index) model -

Developed by Balassa in 1965, this methodology determines a country's relative advantage in a certain product group based on export statistics⁴. The RCA methodology is used in international economics to calculate export potential and a country's relative advantage or disadvantage in certain categories of goods or services⁵.

Calculation formula:

$$\text{RCA} = (\text{X}_{ij} / \text{X}_{it}) / (\text{X}_{wj} / \text{X}_{wt})$$

Where:

- X_{ij} = export of product j by country i
- X_{it} = total exports of country i
- X_{wj} = world's total export of product j
- X_{wt} = world's total exports

Result:

- $\text{RCA} > 1$: The country has a relative advantage in this product
- $\text{RCA} < 1$: The country has a relative disadvantage in this product
- $\text{RCA} = 1$: The country is at the world average level



TPI (Trade Performance Index) - ITC (International Trade Centre)

The TPI methodology developed by the ITC provides a comprehensive assessment of a country's trade performance and is specially adapted for the textile industry⁶.

Main Components:

- Current competitiveness - current export volume and share
- Efficiency - export growth rate and stability
- Market position - position in key markets
- Diversification - product and market variety

Calculation method: $\text{TPI} = (\text{Current competitiveness} \times 0.25) + (\text{Efficiency} \times 0.25) + (\text{Market position} \times 0.25) + (\text{Diversification} \times 0.25)$

Results scale:


- 5 - Very high indicator

⁴ Balassa B. (1965). Trade liberalisation and revealed comparative advantage. The Manchester School, 33(2), 99-23p.

⁵ <http://article.sapub.org/10.5923.j.economics.20160606.05.html>

⁶ <http://fibtex.lodz.pl/article2310.html>

- 4 - High indicator
- 3 - Average indicator
- 2 - Low indicator
- 1 - Very low indicator

 **ITC Export Potential Map** - This methodology displays the results of export potential assessment and identifies products, markets, and suppliers with untapped export potential⁷. That is, it identifies export opportunities using big data analysis.

Main Components:

- Market analysis - size and growth opportunities of target markets
- Product potential - export opportunities for specific products
- Supplier analysis - analysis of competitor countries
- Logistics and trade barriers - transport and customs issues

Methodology steps:

1. Determining market size
2. Analyzing import growth trends
3. Assessing product complexity
4. Considering logistics indicators
5. Calculating final export potential

Result presentation:

- High potential: >75%
- Medium potential: 25-75%
- Low potential: <25%

Table 1

Comparative Analysis of Methodology for Assessing Enterprise Export Potential⁸

Nº	Metodika	Afzalliklar	Kamchiliklar
1	EPIT (Export Potential Index for Textile Industry)	<ul style="list-style-type: none"> • Specifically created for the textile industry • Multi-dimensional and comprehensive • Based on modern SEM technology • Accounts for the sustainability 	<ul style="list-style-type: none"> • Relatively new and less tested • Data collection is complex • Calculation process is cumbersome • Requires expertise outside the field

⁷ <https://exportpotential.intracen.org/en/>

⁸ Source: Author's work.

		factor	
2	RCA (Revealed Comparative Advantage Balassa Indeks)	<ul style="list-style-type: none"> • Simple and understandable • Widely used and validated • Statistical data is easily accessible • Allows for historical comparison 	<ul style="list-style-type: none"> • Based only on past data • Does not indicate future potential • Does not account for the domestic market situation • Neglects quality factors
3	TPI (Trade Performance Index)	<ul style="list-style-type: none"> • Standard recognized by the ITC • Evaluates various factors in a balanced way • Used internationally • Allows for comparison with other countries 	<ul style="list-style-type: none"> • Has a general character • Does not fully reflect textile specifics • Data updates are slow • Takes little account of local factors
4	ITC Export Potential Map	<ul style="list-style-type: none"> • Standard recognized by the ITC • Evaluates various factors in a balanced way • Used internationally • Allows for comparison with other countries 	<ul style="list-style-type: none"> • Technical complexity • Requires special software • Dependent on internet connection • Data insufficiency for some developing countries

The methodologies used to assess the export potential of the textile industry have different approaches and technical features, with each having its own advantages and disadvantages. In our opinion, for a complete and objective assessment of the export potential of textile industry enterprises, it is advisable not to rely on a single methodology but to use several methodologies together. Such an integrated approach can provide enterprises with accurate and reliable information for developing their export strategy.

Now, we will analyze the "Diamond" methodology created by Harvard Business School Professor Michael Porter and its several important factors.

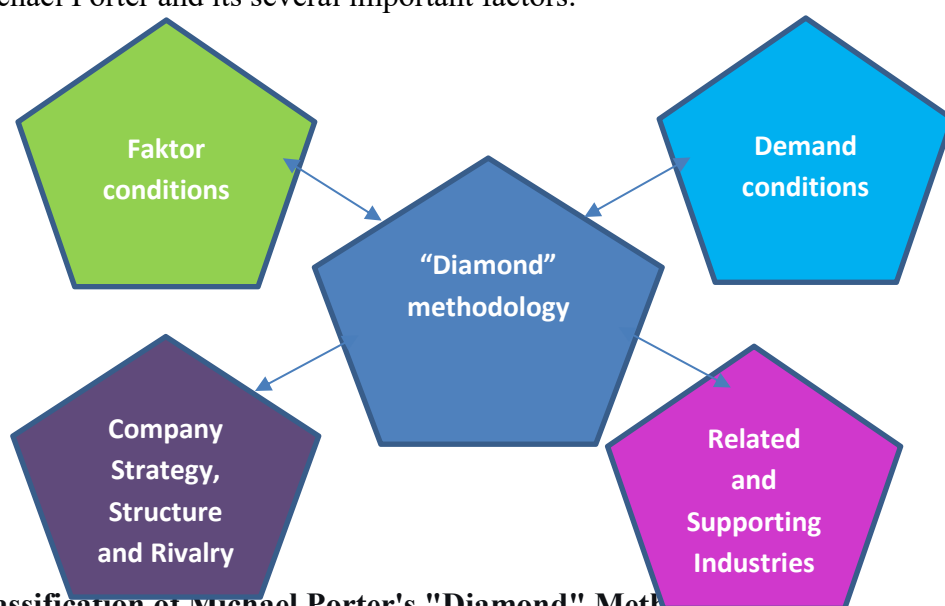


Figure 1. Classification of Michael Porter's "Diamond" Methodology.

⁹ Source: Author's work.

Michael Porter's Diamond methodology consists of the following 4 main components:

1. Factor Conditions

Basic factors: natural resources, climate, geographical location

Created factors: skilled workforce, technological infrastructure, capital

2. Demand Conditions

- Volume and structure of domestic demand
- Sophistication and diversity of customers
- International impact of demand

3. Related and Supporting Industries

- Competitive supplier industries
- Presence of related industries
- Formation of clusters

4. Firm Strategy, Structure, and Rivalry

- Conditions for creating and managing companies
- Level of domestic rivalry
- Strategic goals and approaches
-

M.Porter's "Diamond" methodology is an effective tool for assessing the export potential of textile industry enterprises. Correct application of the methodology helps enterprises identify ways to increase their competitiveness. This methodology visually resembles diamond points and includes factors of strategy, structure, and rivalry, related industries, demand conditions, and factor conditions. Furthermore, it is used by enterprises to manage and shape strategy for investing and operating in local and foreign markets.

It is known that today the textile industry is one of the traditional and promising sectors of Uzbekistan's economy and is an important component shaping the country's export potential. In particular, assessing the export potential of textile enterprises in the Bukhara region is important not only for local industrial development but also from the perspective of ensuring export diversification and economic stability for the entire country. For this reason, we conducted comparative analyses for 4 exporting textile enterprises operating in the Bukhara region: "Kamalak Shabnam teks" LLC, "Leichter Kamalak Textilien" LLC, "Olot spinner" LLC, and "Buxoro Zarhal teks" LLC, aiming to comprehensively assess their export potential and identify ways to enhance their competitive opportunities in international markets.

In our research, while analyzing the economic and financial indicators of the enterprises, we assessed the profitability of their export potential and categorized them into enterprises with high ($5\% \leq H$), medium ($3\% \leq M$), low ($1\% \leq L$), and very low ($0\% \leq VL$) export potential. For this, we used the following assessment formula:

$$KR = \frac{KJSF}{KJX} \times 100\%$$

KR - Enterprise profitability

KJSF - Enterprise total net profit

KJX - Enterprise total costs

For example: "Kamalak Shabnam teks" LLC incurred total costs of 98,056,688 thousand soums and made a net profit of 1,103,370 thousand soums in 2024. Using the formula above, we calculate profitability as follows:

$$KR = \frac{1\,103\,370\,000}{98\,056\,688\,000} \times 100 = 1,1\%$$

Thus, the enterprise's profitability is 1.1%. This means we can see that the enterprise operated with low ($1\% \leq L$) export potential in 2024.

Now we calculate the enterprise's average profitability over 5 years of activity:

$$\frac{0,8+3,9+2,7+0,5+1,1}{5} = 1,8\%$$

We can see that the enterprise's 5-year average profitability is 1.8%, meaning it operated with low ($1\% \leq L$) export potential.

Let's calculate the average profitability of the joint enterprise "Leichter Kamalak Textilien" LLC.

$$\frac{15,3+5,9}{2} = 10,6\%$$

It was determined that the enterprise's 2-year average profitability is 10.6%, meaning it has been operating with high ($5\% \leq H$) export potential.

Now we calculate the average profitability of "Olot spinner" LLC over 5 years of activity:

$$\frac{4,0+0,9+2,5+1,9+6,5}{5} = 3,1\%$$

It was determined that the enterprise's 5-year average profitability is 3.1%, meaning it has been operating with medium ($3\% \leq M$) export potential.

Although "Buxoro Zarhal teks" LLC realized products worth 189,586,580 thousand soums and exported \$2,565,320 US dollars in 2023, and realized products worth 118,993,985 thousand soums and exported textile products worth \$1,477,836 US dollars in 2024, the enterprise ended both 2023 with a total loss of 12,897,843 thousand soums and 2024 with a loss of 9,764,316 thousand soums. Therefore, the enterprise's profitability indicators are negative, below zero. From the profitability indicators of the last 3 years, we can see that the enterprise's export potential profitability has been operating with a very low ($0\% \leq VL$) potential.

As a result of assessing the export potential of the textile enterprises, the companies are reflected as follows:

From the figure below (Figure 2) and the comparative analyses conducted, a clear aspect we can see is that among these 4 enterprises, the one with the highest export potential is the joint enterprise "Leichter Kamalak Textilien" LLC. "Olot spinner" LLC has medium export potential,

"Kamalak Shabnam teks" LLC has low export potential, and "Buxoro Zarhal teks" LLC operates as a textile enterprise with very low export potential. Textile enterprises in the Bukhara region constitute a significant part of Uzbekistan's textile exports and also hold their place in international markets. However, to fully utilize the existing potential, it is necessary to solve a number of systemic problems.

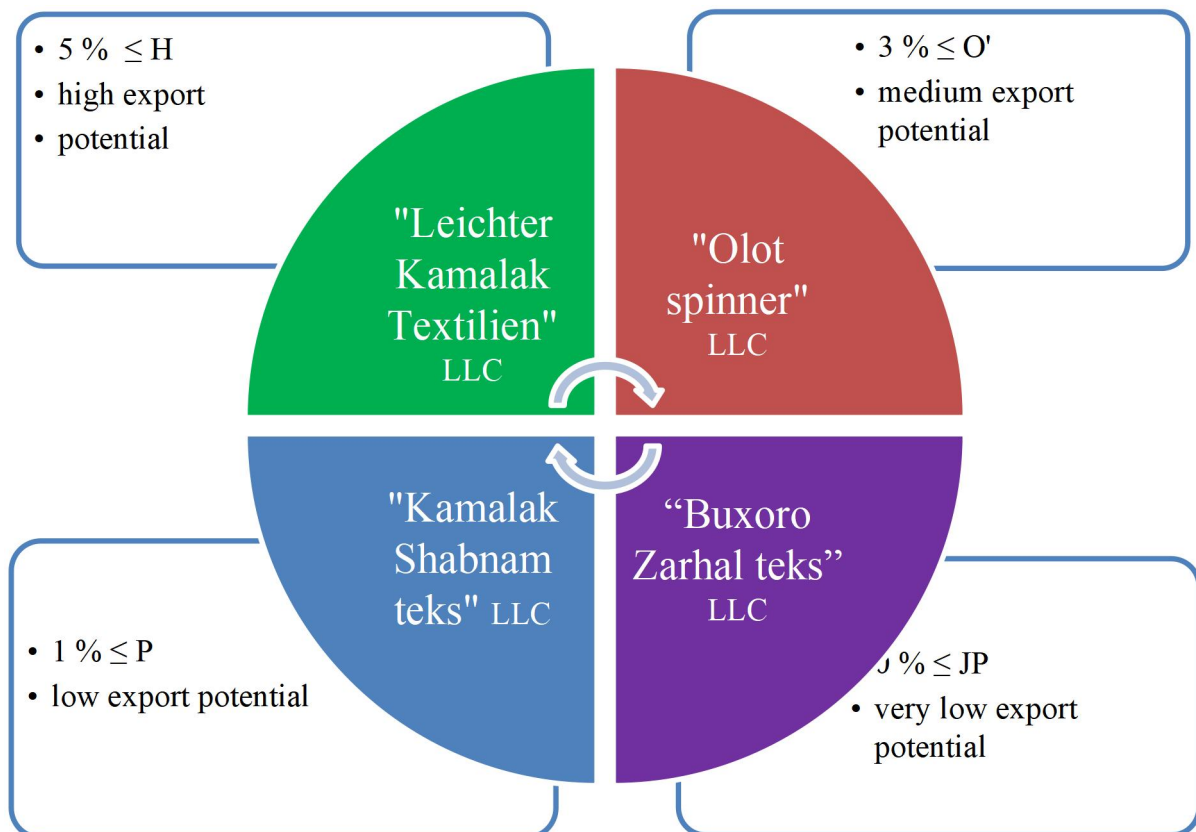


Figure 2. Assessment of the Export Potential of Bukhara Region Textile Industry Enterprises¹⁰

Conclusion. The following conclusions were drawn from the process of assessing the export potential of textile enterprises:

- the export structure is predominantly dominated by raw materials and semi-finished products; it is necessary to increase the share of finished products that create added value;
- currently, the main part of exports is directed to Russia, Kazakhstan, Azerbaijan, and Central Asian countries. It is advisable to also cover markets in Europe, North America, and the Asia-Pacific region;
- further improve the quality of transport and logistics services, solve problems of energy supply stability, and ensure that communication systems meet modern requirements;
- personnel training: develop and implement special training programs, organize international experience exchange programs;
- implement market diversification, improve marketing research and mechanisms, and develop a strategy for exploring and developing new export markets.

¹⁰ Source: Author's work.

In general, under market economy conditions, the use of marketing programs in enterprise activities is an important condition for increasing the enterprise's export potential and achieving economic efficiency. In recent years, as a result of reforms being implemented in the country, including the Bukhara region, economic relations have been liberalized and the competitive environment has been strengthening. This is encouraging the further development of the practice of effectively using marketing mechanisms to further enhance the export potential of enterprises and ensure their competitiveness.

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