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Abstract: *This paper summarizes the arguments and counterarguments within the scientific discussion on identifying the potential markets for Micro Small and Medium Enterprises (MSMEs). The main purpose of the research is to present the commodities and potential destinations that Indian MSMEs can tap on to broaden their business and eventually to the overall growth of the country. Systematization of the literary sources as a part of the study indicates that MSMEs have made a significant contribution to the country's GDP and trade. A survey of the approaches for solving the objective of the research reveals that trade indices and CGE models are the most appropriate when it comes to trade policy analysis. The relevance of this scientific problem decision is that Indian MSME's contribute to more than 30% of India's GDP and enhancing MSME exports would help the country achieve an inclusive, socio-economic growth. Investigation of the topic in the paper is carried out in the following logical sequence: We first analyze the commodities that have a potential for growth and then move ahead to analyze the promising markets. To perform quantitative analysis, we use trade indices and estimations from Computable General Equilibrium -GTAP (Global Trade Analysis Project) model. To analyze potential commodities, we use Product Space Analysis with three indicators, namely, the Revealed Comparative Advantage (RCA), Revealed Trade Advantage (RTA), and Market Demand Index. To analyze the potential markets, we use the Export potential indicator and GTAP estimates for the years 2022-27. The object of the research is to empower MSMEs in India with insights and data about the potential markets and commodities for export from India. The paper shows that MSMEs have a higher potential for exports in textiles and clothing, food products, vegetables, and other agricultural products, and machinery and electrical equipment sectors. In terms of markets, our analysis reveals that MSMEs have a broad scope in the UAE, China, Bangladesh, and the USA.*

Keywords: Indian MSMEs, Trade Indices, Market Demand Index, Revealed Comparative Advantage, Export Potential Indicator, GTAP database.

JEL Classification: F1.

Received: 12.01.2023

Accepted: 17.02.2023

Published: 31.03.2023

Funding: There is no funding for this research.

Publisher: Academic Research and Publishing UG, Germany.

Founder: Academic Research and Publishing UG, Germany; Sumy State University, Ukraine.

Cite as: Chakravarthy, S., Bharathi, S., Khire, D., Gopalakrishnan, B.N. (2023). Analyzing the potential market for MSMEs in India. *SocioEconomic Challenges*, 7(1), 97-114. [https://doi.org/10.21272/sec.7\(1\).97-114.2023](https://doi.org/10.21272/sec.7(1).97-114.2023).



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1. Introduction

Micro Small and Medium Enterprises (MSMEs) have played a phenomenal role in the growth of the Indian economy. The development and growth of this segment are pivotal for emerging, new-age entrepreneurs as it has the power to widen the entrepreneurial base of the country. With globalization and an ever-shrinking world, MSMEs have higher export potential. MSMEs are playing an important role in job creation, industrial output, and overall economic development. According to the World Development Indicators (2022), SMEs represent about 90% of businesses and more than 50% of employment worldwide, holding a contribution of 40% to the national income of emerging economies.

This is perhaps without comprehensively considering the complete contribution from the informal MSMEs and the number would increase if we do so. SME finances data suggests that East Asia and the Pacific have the highest number of MSMEs with the number going above 1020 million followed by South Asia and Sub-Saharan Africa. In India, the MSMEs contribute to 30% of the country's GDP and 40% of its exports. The emergence of COVID-19 has accelerated the penetration of the internet and the adoption of digital platforms. Digitalization which evolved as a coping mechanism during the pandemic has now become mainstream owing to several reasons, though the higher return on investment and lower cost of operation, remains the main ones. E-commerce marketplaces have enabled the digital transformation of MSMEs at minimal cost and investment while also widening the scope and scale of MSMEs' business operations and markets. With the evolution of eCommerce platforms that promise state-of-the-art logistics and facilities, exporting and selling overseas has become hassle-free and a lot easier than otherwise. By exporting their products and services through global marketplaces, MSMEs get an opportunity to expand and grow their businesses.

The objective of the study is to analyze and present commodities and markets that are vital for the growth of Indian MSMEs and have a potential for export using data from authentic international data sources such as the UN COMTRADE extracted from WITS and GTAP 10.0 database.

If we resort to analyzing the country's export competitiveness just by using the absolute value of the exports, we may not be able to arrive at a fruitful conclusion. For example, India may hold a higher absolute value for the export of some products, but it may be a minuscule proportion of what is demanded in the world market and so the analysis may not yield broader results. Therefore, we develop trade indicators to compare the relevance of India's export of a product/service to its relative importance in the world market and this would reveal the true significance of India's exports.

2. Product Space Analysis

To analyze commodities and sectors that have a potential for growth, we use three different indices – Market Demand Index, Revealed Comparative Advantage, and Relative Trade Advantage.

2.1 Market Demand Index

In the Market Demand Index, we examine how much countries import under each product category or in other words, the demand for a commodity at the global level. We calculate the Market Demand Index for the years 2017 and 2022 to identify and recommend commodities whose market demand is growing.

We first calculate the Market Demand Index at the HS-4-digit level and then present an aggregation at the HS-Section (commodities aggregated as major sectors) level with the count of the HS-4 commodities that have a growing market demand between 2017 and 2022. Out of 1223 commodities under the HS-4 classification, there are 425 commodities with an increase in demand between 2017 and 2022. As per our analysis, the chemicals sector has the highest number of commodities, where about 79 commodities have a growing market demand; Metals have about 74 commodities, vegetables have about 51 commodities, the machinery and electrical equipment sector has about 39 commodities, and textiles and clothing have about 34 commodities. Table -3 presents all sectors that have a growing market demand between 2017 and 2021.

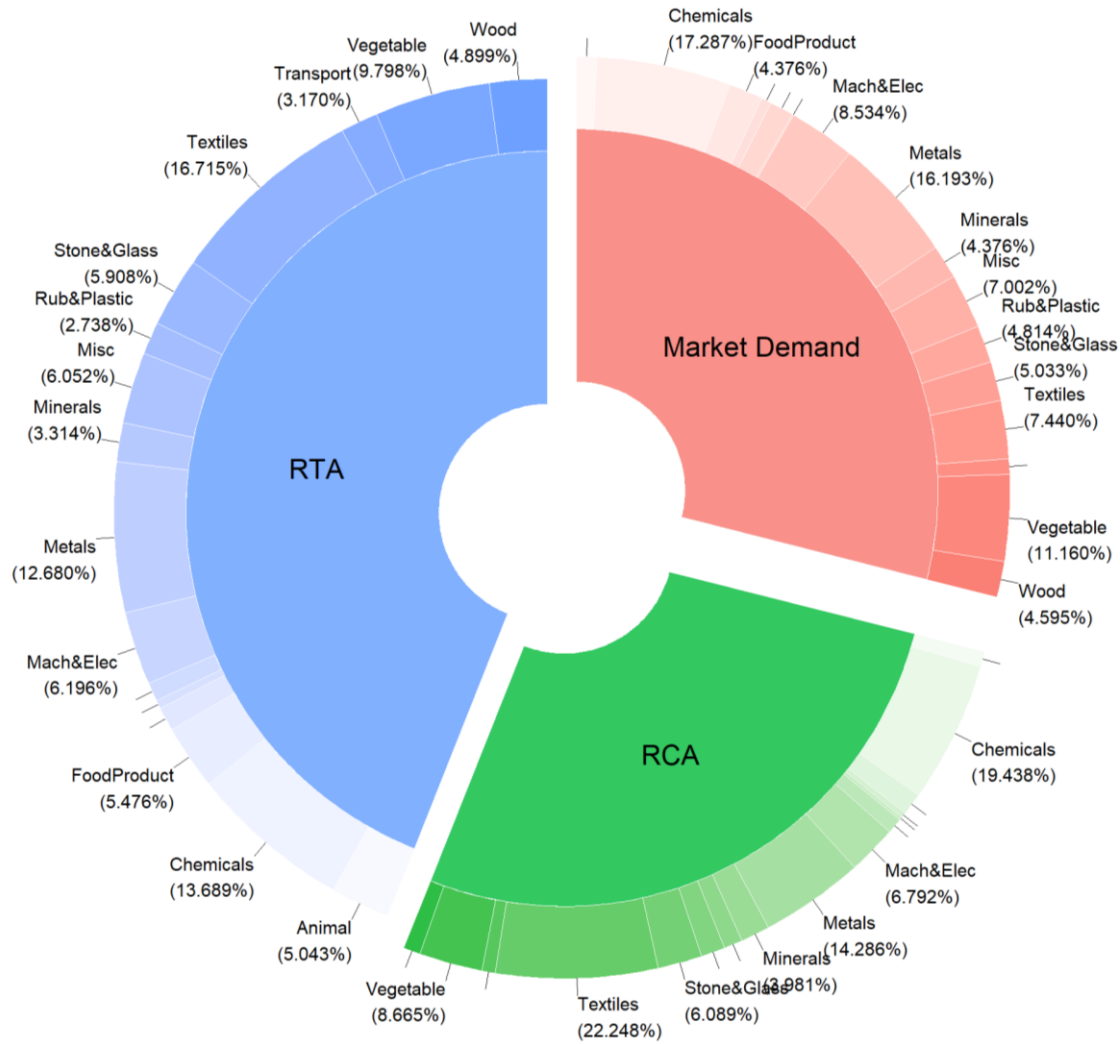


Figure 1. RCA, RTA, and Market Demand Index Summary

Source: Author’s calculations based on UN COMTRADE data from World Integrated Trade Source.

Now that we have derived sectors that have a growing market demand at the global level, we then use Revealed Comparative Advantage (RCA) and Relative Trade Analysis(RTA) to analyze and present product categories in which India has a competitive advantage in trade and supply.

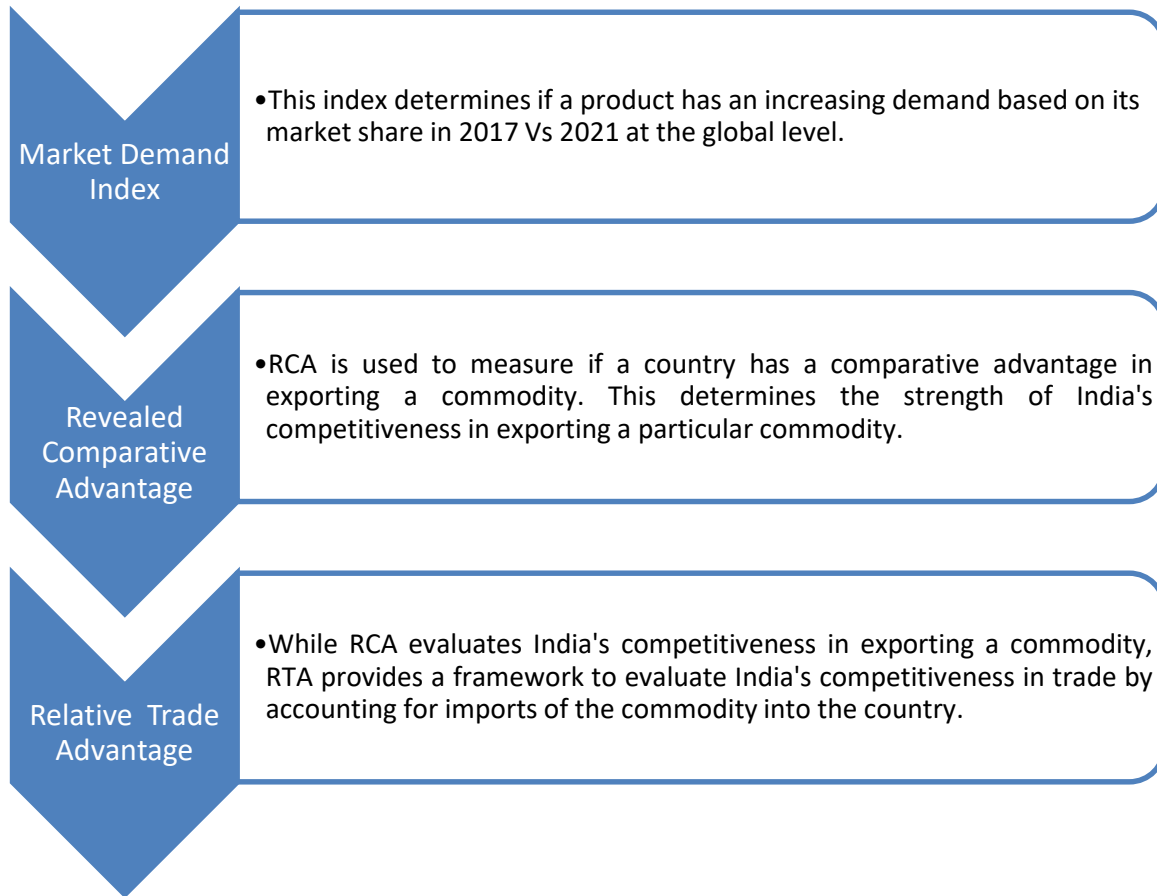


Figure 2. Summary of trade indices used to estimate the commodities with growth potential for MSMEs

Source: Author's analytical framework.

2.2 RCA – Revealed Comparative Advantage

To calculate the Revealed Comparative Advantage, we use Balassa's measure of relative export performance which is defined as the country's share of world exports of a particular commodity divided by the share of the country's exports in the total world exports.

$$RCA_{ij} = (X_{ij}/X_{wj})/(X_i/X_w)$$

where X_{ij} is India's export of commodity j ,

X_{wj} is world exports of commodity j ,

X_i is total exports of India,

X_w is total world exports.

If the value of RCA is greater than 1 for a product, it means that India has a comparative advantage in that product. To present a broad picture as well the granular details on India's competitiveness, we calculate the RCA at both HS-4 digit level and the HS-2 digit level. The broader picture of our analysis and findings is discussed below while intricate details shall be delivered and discussed in our extensive report.

Table 1. Top ten commodities based on RCA at HS2 and HS4 digit levels

<i>Product Code (HS 2)</i>	<i>Product Description</i>	<i>Product Code (HS-4)</i>	<i>Product Description</i>
57	Carpets and other textile floor covering	5701	Carpets and other textile floor covering
14	Vegetable plaiting materials; vegetable products	1508	Ground nut oil and its fractions
52	Cotton	2516	Granite, porphyry, basalt, sandstone and other monumental or building stone
13	Lac; gums, resins and other vegetable saps and extracts	5305	Coconut, abaca (Manila hemp or Musa textilis Nee), ramie and other vegetable textile fibre
53	Vegetable textile fibres; paper yarn	5310	Woven fabrics of jute, & other textile base fibres
63	Textiles, made-up articles; sets; worn clothing and textile articles	7104	Synthetic, reconstructed precious or semi-precious stones
67	Feathers and down, prepared; and articles made of feather	6703	Human hair, dressed, thinned, bleached or worked; wool or other animal hair
17	Sugars and sugar confectionery	2525	Mica, including splitting; mica waste
46	Manufactures of straw, esparto or other plating material. basket ware and wickerwork	1006	Rice
9	Coffee, tea, mate and spices	0909	Seeds of anise, badian, fennel, coriander, cumin or caraway; juniper berries

Source: Author's calculations based on UN COMTRADE data from World Integrated Trade Source.

Out of the total 1223 commodities at the HS-4 digit level, 416 commodities i.e. 34% of them have RCA greater than 1, revealing that India has a greater advantage of trade in 34% of commodities. At the HS-2 digit level, 41 products have an RCA value greater than one. Table 1 presents the list of the top ten commodities studied at HS-2-digit and 4-digit levels.

We then map them to the HS Sections and Figure 1 presents the same. In other words, it presents the HS-Sections that have a higher number of commodities with RCA greater than one when analyzed at the HS-2 digit Chapter level. While doing so, we see that 32 out of 42 commodities that have RCA greater than one at the HS-2 digit level, fall under textiles and clothing, metals, vegetables, chemicals, and stone and glass. We have only covered these sectors in the figure, and they form the inner circle of Figure 3. And the outer circle presents a deeper picture, where it has all HS-2 commodities (categorized under different sections) that have higher values of RCA and so a comparative advantage for India in the global marketplace. It can also be seen that though the metals section (7 commodities) has more commodities than vegetables (5 commodities), those in the vegetable section have higher values of RCA.



Figure 3. List of commodities with RCA>1 at the HS-2 digit level mapped to HS Sections

Source: Author's calculations based on UN COMTRADE data from World Integrated Trade Source.

2.3 RTA – Revealed Trade Advantage

We complement the RCA with Relative Trade Advantage which is calculated as the difference between Relative Export Advantage (RXA) and Relative Import Advantage (RIA).

$$RTA = RXA - RMA$$

$$RXA = (X_{ij}/X_{wj})/(X_i/X_w)$$

where X_{ij} is India's export of commodity j ,

X_{wj} is world exports of commodity j ,

X_i is total exports of India,

X_w is total world exports.

$$RMA = (M_{ij}/M_{wj})/(M_i/M_w)$$

where M_{ij} is India's import of commodity j ,

M_{wj} is world imports of commodity j ,

M_i is total imports of India,

M_w is total world imports.

If the value of RTA for a commodity is greater than 0, it means that the country has a relative trade advantage in that particular commodity. Table 2 presents the list of commodities that have a top ten RTA values as per our analysis at the HS2 and HS4 digit levels. Under HS2, 66 commodities have positive RTA values. Of the 1223 commodities studied under the HS-4 categories, 652 commodities have a positive RTA.

Table 2. Top ten commodities based on RTA at HS2 and HS4 digit levels

<i>Product Code (HS 2)</i>	<i>Product Description</i>	<i>Product Code (HS-4)</i>	<i>Product Description</i>
57	Carpets and other textile floor covering	2516	Granite, porphyry, basalt, sandstone and other monumental or building stone
14	Vegetable plaiting materials; vegetable products	1508	Ground nut oil and its fractions
52	Cotton	5701	Carpets and other textile floor covering
13	Lac; gums, resins and other vegetable saps and extracts	1006	Rice
63	Textiles, made-up articles; sets; worn clothing and textile articles	2525	Mica, including splitting; mica waste
67	Feathers and down, prepared; and articles made of feather	6703	Human hair, dressed, thinned, bleached, or worked; wool or other animal hair
46	Manufactures of straw, esparto or other plating material. basket ware and wickerwork	5003	Silk waste (including cocoons unsuitable for reeling, yarn waste and garneted stock)
17	Sugars and sugar confectionery	0909	Seeds of anise, badian, fennel, coriander, cumin, or caraway; juniper berries
53	Vegetable textile fibres; paper yarn	5305	Coconut, abaca (Manila hemp or <i>Musa textilis</i> Nee), ramie and other vegetable textile fibre
9	Coffee, tea, mate, and spices	0904	Pepper of the genus <i>piper</i> ; dried or ground fruits of the genus <i>capsicum</i> or of the genus <i>pimenta</i>

Source: Author's calculations based on UN COMTRADE data from World Integrated Trade Source.

Figure 4 presents the HS Sections that have a relatively higher number of commodities at the HS-2 digit level with RTA values greater than one. It also presents the commodities that have high RTAs under each of the Sections. Textile and Clothing, Vegetables, Food Products, Metals, and Chemicals Section have the largest number of commodities with RTA greater than one.

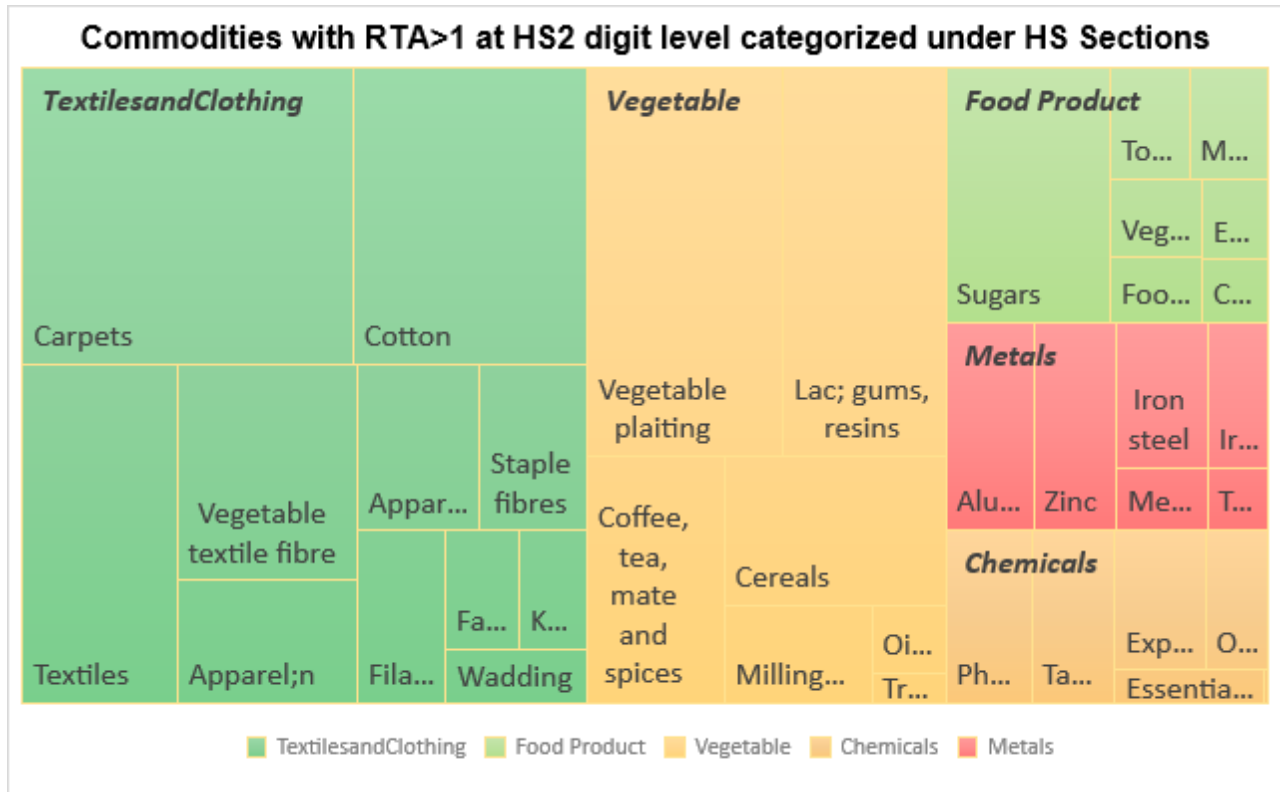


Figure 4. Commodities with RTA>1 at HS2 digit level categorized under HS Sections

Source: Author’s calculations based on UN COMTRADE data from World Integrated Trade Source.

2.4 Summary of Market Demand Index, RTA and RCA

Table -3 summarizes the findings of our analysis of the Market Demand Index, RCA, and RTA. The table details the number of commodities that have a growing market demand under each product category. Our analysis shows that chemicals, metals, vegetables, machinery and electrical equipment, and textiles have the highest number of commodities whose market demand has grown between 2017 and 2021.

We then combine the market demand index with RCA and RTA to identify commodities in which India has a comparative advantage in trade and exports. Under chemicals, 83 commodities have RCA greater than 1 and a positive value of RTA shows that these commodities have a greater comparative advantage. Similarly, 61 commodities under metals have an RCA greater than 1, and 88 commodities have a positive RTA. Apart from chemicals and metals, 37 commodities in vegetables, 29 in machinery and electrical equipment, 95 commodities in textiles and clothing sector have RCA values greater than one. 116 commodities under textiles, 95 under chemicals, 88 commodities in metals, 68 in vegetables, and 43 in machinery and electrical equipment have positive values of RTA. Other commodities can be inferred from Figure 1 and Table 3.

Table 3. Number of commodities under each product category with growing market demand, RCA>1, and RTA>0

Product Code	Market Demand	RCA	RTA	Estimated export growth in 2027	Share of MSMEs in each sector
Chemicals	79	83	95	55%	2.5%
Metals	74	61	88	55%	2%
Vegetable Products	51	37	68	42%	10%
Machinery & Equipment	39	29	43	60%	3.4%
Textiles	34	95	116	33%	10.8%
Stone & Glass	23	26	41	38%	2.5%

Table 3 (cont.). Number of commodities under each product category with growing market demand, $RCA > 1$, and $RTA > 0$

Product Code	Market Demand	RCA	RTA	Estimated export growth in 2027	Share of MSMEs in each sector
Rub & Plastic	22	14	19	67%	2.7%
Wood	21	10	34	104%	2%
Minerals	20	17	23	50%	1.3%
Food Products	20	13	38	65%	12.3%
Fuels	14	2	5	-13%	=
Animal Products	12	9	35	62%	10%
Transport	9	8	22	57%	0.4%
Footwear	6	3	14	83%	1.4%
Hides and Skin	1	9	11	82%	1.4%

Source: Author's calculations based on UN COMTRADE data from World Integrated Trade Source.

2.5 Market growth estimates using GTAP

We also use the framework of GTAP, the Global Trade Analysis Project, to estimate the export growth for each of the sectors in India. More specifically, we use the dynamic version of the GTAP to estimate the market growth for the years 2022-2027. The GTAP database has 141 countries/regions and 65 sectors. The latest available GTAP database is referenced to the year 2014. To estimate the growth of sectors that are strategically important to the Indian MSMEs, we scale the database to the year 2021 and estimate the growth for the years 2022-27. We do so by using the GDP data extracted from the World Bank and the growth estimates from the IMF. As per IMF growth estimates, India is expected to grow at the rate of 11.22% between 2021 and 2022, 10.15% in 2023, 9.68% in 2024, 9.62% in 2025, 8.94% in 2026 and 8.48% in 2027. We use this to construct the baseline of the model and estimate the expected growth rate of exports. We also aggregate the 141 countries into 22 countries/regions retaining the essential export destinations of India. The fifth column in Table 3 is the estimated growth for export of each sector in the year 2027. The estimates show that wood, hides and skin, rubber and plastics, food products, and animal products will experience more than 60% growth in their exports.

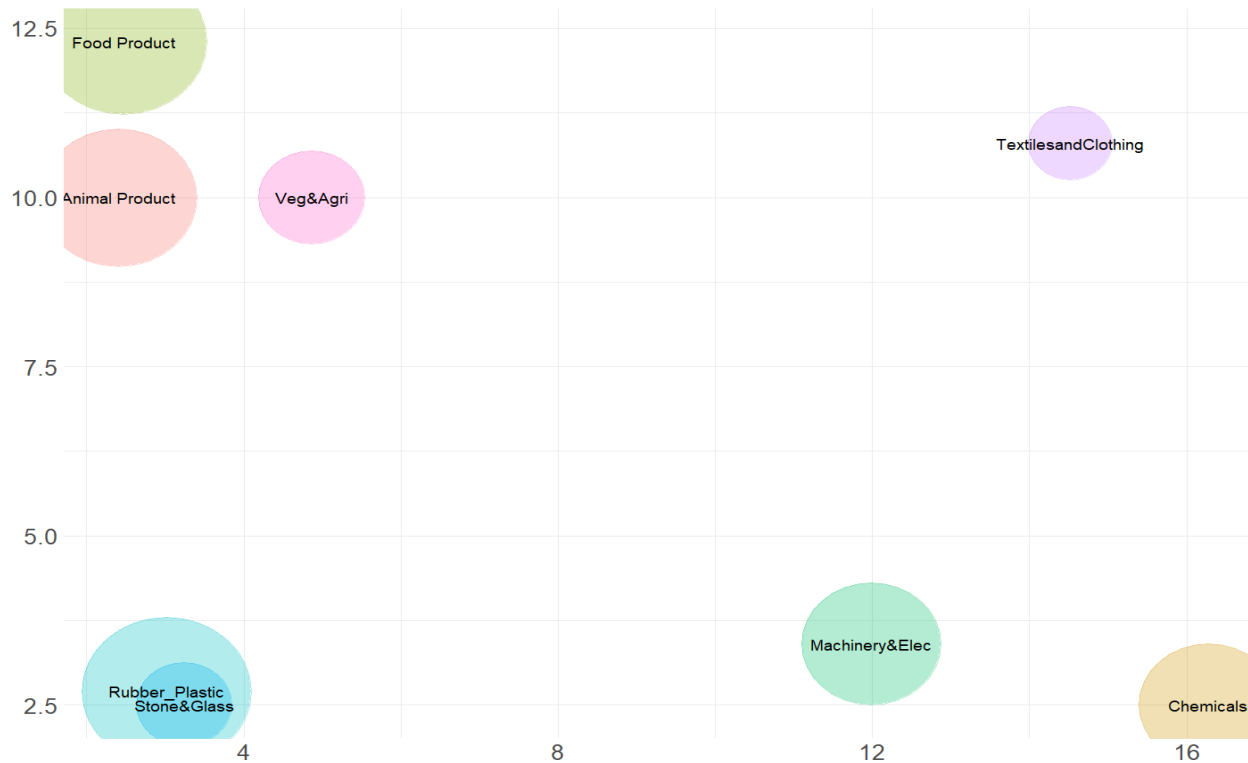
2.6 MSME share of each sector

Based on our literature survey, Indian MSMEs have more than 10% of the share in the following sectors - food products, textiles, vegetables, and animal products. MSMEs have 3.4% in machinery and equipment, 2.5% in the chemicals sector as well as in the stone, glass, and ceramics sector, and 2% in metals. Details of the MSME share of other sectors are listed in Table-3.

2.7 Summary of Product Space Analysis

Figure 5 presents the trade map based on the share of a sector in India's aggregate exports, MSME's share in each sector, and export growth rate estimates by the year 2027. The size of the bubble depicts the growth rate estimates, the X-axis depicts the export share of the commodities, and the Y-axis, their MSME share.

The export share of the textiles and clothing sector is high, and this reveals the competitiveness of India in the sector. The MSME share in the textiles and clothing sector is also high. While in food products, animal products and vegetables and other agricultural products, the MSME share is higher while the export share is relatively lower. Yet, as per our GTAP estimates, their exports are expected to grow well in the coming years. The machinery and Electrical equipment sector have a notable share in India's total exports and also high export growth rate estimates. Though MSME's share in machinery and electrical equipment is low in India at the moment, the sector has high growth potential in India as well as high demand in the global market. So, the machinery and electrical equipment sector has a high growth potential and MSMEs should consider investing and exporting in this sector.



Notes: X axis - Share of a commodity in India's total exports; Y axis - MSME share of a commodity.

Source: Author's calculations.

Figure 5. Trade Map based on India's share of exports of a commodity, MSME share, and estimated growth of exports in 2027

Based on the export growth potential derived from GTAP data and MSME shares we cluster the sectors. The details of commodities under each cluster are shown below.

Table 4. Sectors clustered based on export growth estimate and the strength of MSME footprint

<i>Export Growth</i>	<i>MSME Footprint</i>	<i>Sectors</i>
High	Strong	Food Products, Animal products
Medium	Strong	Vegetables and Agri Products, Textiles and Clothing
High	Weak	Machinery and Electrical Equipment, Rubber and Plastics
Low	Weak	Stone, Glass, and Ceramics

Source: Author's calculations.

So, based on the above parameters – growth in exports, MSME shares, and the export share of the sectors, we conclude that MSMEs have a higher potential for exports in textiles and clothing, food products, vegetable and other agricultural products, and machinery and electrical equipment sectors.

To present an intricate picture, we extend our analysis to cover commodities at the HS2 digits level. Based on the Market Demand Index, we pick only those commodities that have a growth in market demand between 2017 and 2021. From these commodities, we pick those that have RCA values greater than one and RTA values greater than zero. Figure 6 shows the top ten commodities at the HS-2 level based on all the above parameters such as trade indices, MSME share, and estimated export growth rate by 2027



Figure 6. Commodities with high export potential selected based on Market Demand Index, RCA ad RTA

Source: Author's calculations.

3. Market Analysis

In the previous section, we have presented an extensive analysis to identify commodities in which India has a higher potential to expand its trade. To identify potential target markets for the export of commodities from MSMEs in India, we have used Export Potential Indicator along with GTAP estimates for GDP and imports in the year 2027.

Table 5. Top ten countries based on export value

Country	Export Value (in '000 USD)	Percentage Share in India's exports
United States	71510497	18.11
United Arab Emirates	25446639	6.45
China	23036597	5.83
Bangladesh	14092748	3.57
Hong Kong, China	11290061	2.86
Singapore	10650087	2.70
United Kingdom	10374395	2.63
Netherlands	10284461	2.60
Germany	9513606	2.41
Nepal	9189859	2.33

Source: UN COMTRADE data from World Integrated Trade Source.

When we look at merely the export value, the top 10 destination markets for India are given in Table 5. About 18% of exports from India go to the United States and about 6.5% of exports go to the United Arab Emirates. Of the total, 37% of India's exports go to the USA, UAE, China, Bangladesh, and Hong Kong. The market's potential depends on multiple factors such as the market's growth potential, access to the market, India's current exports to the market, the market's import capabilities, and so on. If we just look at the absolute value of exports, we may not be able to derive deep insights into what could serve as a potential target market for India for all commodities and for the commodities we presented in section 1. So, we consider using trade indicators and indices to capture the relevance of India's export of a product/service to its significance in the world market. We also use GTAP to estimate the GDP and import growth of India's export destinations between 2022-27, so we can recommend markets that have higher import consumption estimates.

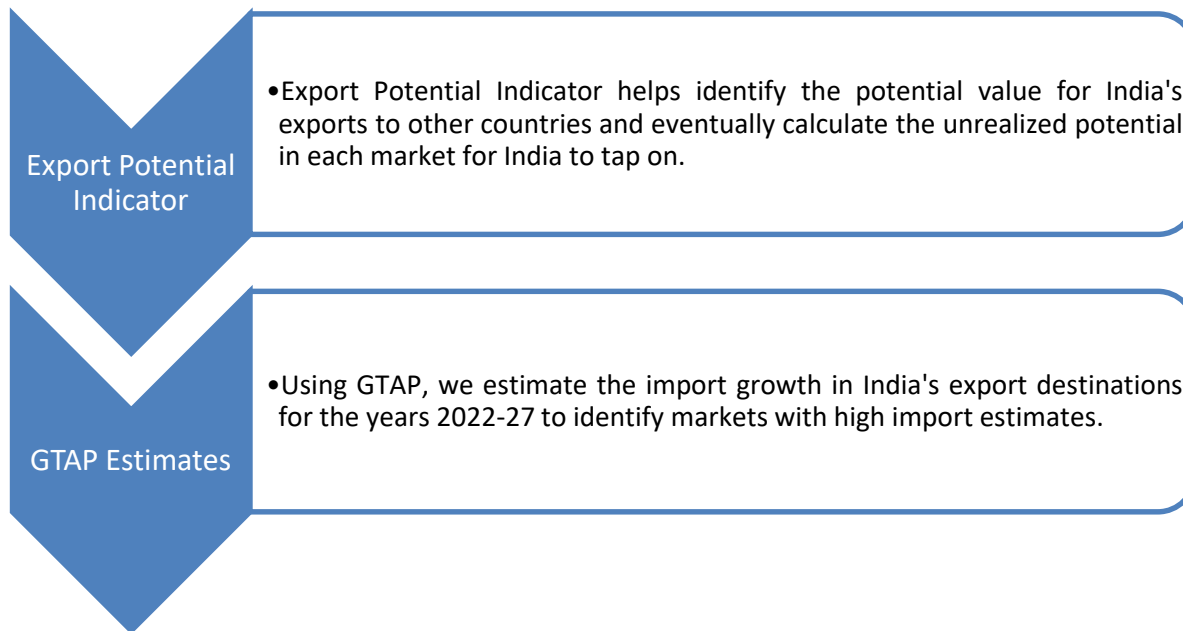


Figure 7. Summary of trade indices used to estimate potential markets and destinations for MSMEs

Source: Author's analytical framework.

3.1 Export Potential Indicator

Decruex, Y. and Spies, J. (2016) have developed an export potential assessment methodology that helps countries identify the untapped potential in their target markets. The export potential indicator evaluates the unrealized

potential based on three parameters, namely, demand, supply, and easiness to trade. This way, the indicator helps identify existing and new markets that have a higher potential for export considering their competitiveness in the international podium.

Drawing inspiration from the gravity framework and assuming that the world is in equilibrium, the trade happening between two countries can be described by exporter*product, importer*product, and exporter*importer factors.

$$V_{ijk} = \alpha_{ik}\beta_{ij}\gamma_{jk} \tag{1}$$

V_{ijk} - Exports from India of product k to market j .

α_{ik} – India’s performance in exporting product k .

β_{ij} - Easiness to export goods from India to market j .

γ_{jk} - reflects j ’s demand for product k in the market j .

Decoding this further,

$V_{ijk} = V_{ik}/V_k$, reveals India’s world market share in k , i.e. India’s supply of a commodity.

$\gamma_{jk} = V_{jk}$, reveals total import of product k by country j , i.e. Total demand of a country.

$$\beta_{ij} = \frac{V_{ij}}{\sum_k \left(\frac{V_{ik}}{V_k}\right) * V_{jk}} \tag{2}$$

$$\beta_{ij} = \frac{V_{ij}}{\sum_k \text{Supply} * \text{Demand}}$$

(2) is a measure of the bilateral trade value to what trade would be if the exporter had the same share in world markets as it has in market j . This reveals the easiness to trade. If the easiness is greater than one, it means that India finds it easy to trade with a market j , than with world markets on average. This is irrespective of the product under analysis. On the other hand, if the easiness is less than 1, India finds it more difficult to trade with the market, j .

3.2 Aggregate untapped potential

The export potential indicator calculated as per (2) and (1) shows that USA, China, UAE, Hong Kong, and Bangladesh have the highest potential for India in terms of exports. This estimate is based on the gap that exists between India’s supply of a commodity to a country and the total demand placed by a country for that commodity while also considering the easiness to trade between the two countries.

Table 6. Top ten countries based on Untapped potential values.

Country	Untapped Value (in ‘000 USD)
United States	15484337
China	8868066
United Arab Emirates	7254930
Hong Kong, China	5509477
Bangladesh	4562113
United Kingdom	3903353
Singapore	3611352
Belgium	3309221
Germany	3165298
Saudi Arabia	2924383

Source: Author’s calculations based on UN COMTRADE data from World Integrated Trade Source.

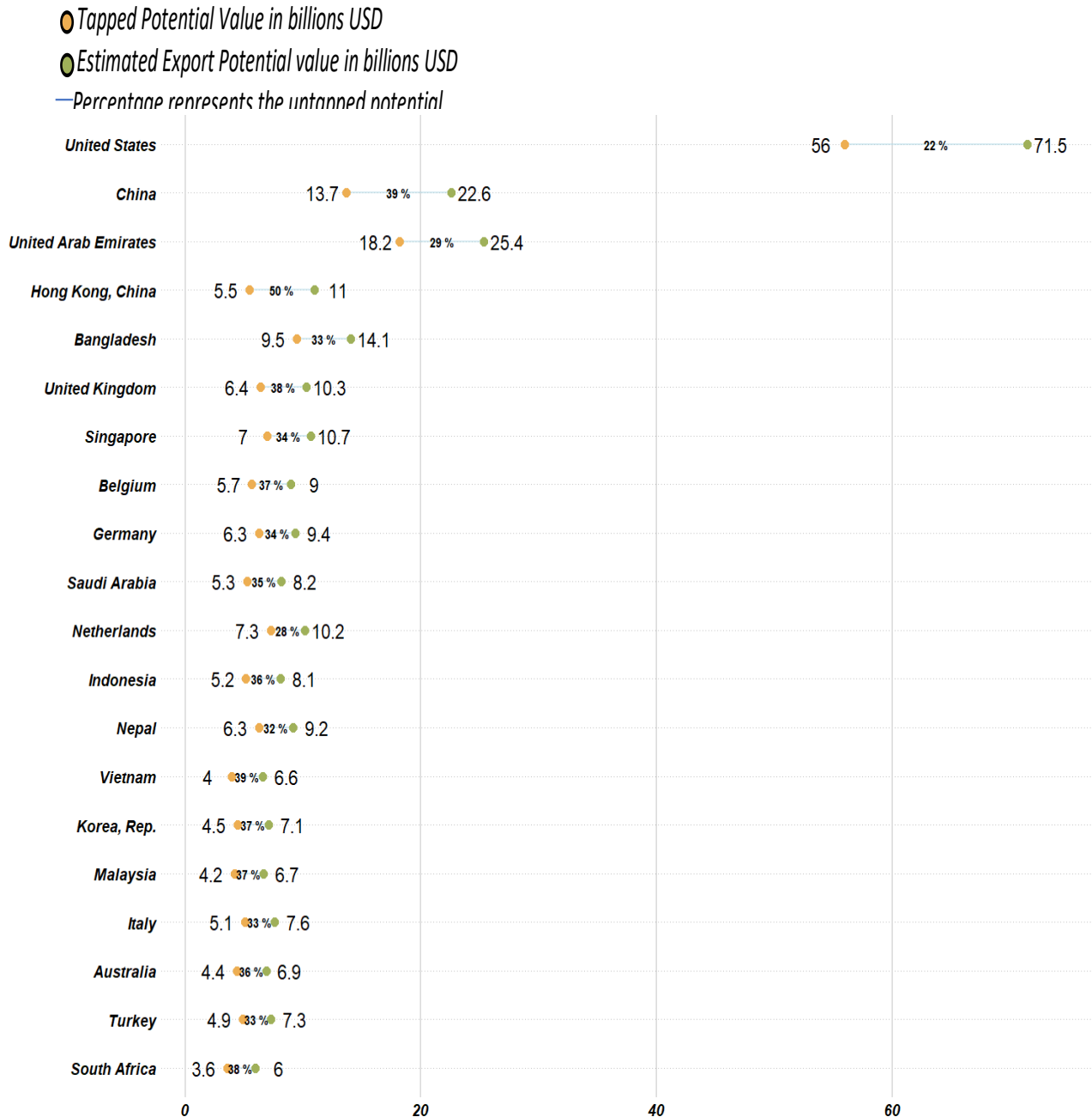


Figure 8. Export Potential Value (Tapped, Untapped and Total Potential Value) for the top 20 countries based on India's Untapped potential value

Source: Author's calculations based on UN COMTRADE data from World Integrated Trade Source.

In Figure 8, the position of countries represents the order of estimated untapped potential in absolute terms. For an extended analysis, we have also presented the percentage of the untapped potential. It should be noted that though in percentage terms of untapped potential, the USA has a relatively lower value (22%), in terms of absolute value, the USA ranks at the top. Similarly, though the percentage change for Hong Kong is as high as 50%, in terms of absolute value it is lower than that of the USA, China, and the UAE. Estimating the untapped potential value is a holistic approach to determining real export capabilities of a market compared to using indicators such as export intensity, revealed trade barriers etc. This is because EPV (Estimated Potential Value) indicator determines a market's ability to export to other markets based on its export intensity, demand in the other market

and also existing trade barriers. Thus, we can see that markets such USA, China, UAE are among the top destinations not only because India has higher export footprint in those regions but also because the demand and ease of trade with these economies are higher in comparison to other potential markets.

2.3 GTAP Estimates

As explained in section 1.5, we have used GTAP to estimate the GDP and import growth to present potential markets for exports from India. The following table presents the GDP as well as the import growth rate estimated by the GTAP model.

Table 7. GTAP GDP and import growth estimates for the year 2027 for top ten countries in Table 6

Country	GDP growth	Import Growth
United States	24.39	30.17
China	66.85	50.20
United Arab Emirates	74.12	50.09
Hong Kong, China	29.82	35.90
Bangladesh	75.98	38.30
United Kingdom	30.96	46.28
Singapore	36.99	29.78
Belgium	22.87	25.75
Germany	20.28	25.46

Source: Author’s calculations based on GTAP estimates.

As it can be seen in Table 7, the import growth estimates for UAE and China are around 50% and are the highest among India’s destination markets that have greater untapped potential as per estimations in Table 6. They are followed by United Kingdom which is estimated to grow at 46% by 2027. The GDP growth estimates are the highest for Bangladesh, UAE, and China.

2.4 Summary of Market Analysis

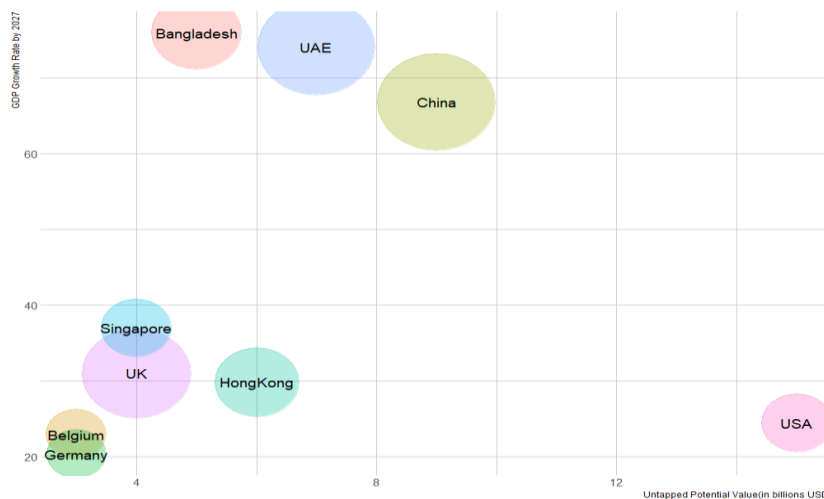


Figure 9. Potential markets for India’s exports based on GDP growth rate, untapped potential value and imports growth rate

Notes: X axis – Untapped potential value (in billions USD). Y axis – GDP growth rate.

Source: Author’s analytical framework.

Table 8. Summary based on untapped potential, GDP, and import growth rate.

GDP Growth (by 2027)	Import Growth (by 2027)	Untapped Potential	Markets
High	High	High	UAE, China
Medium	Medium	Medium	Singapore, the UK, and Hong Kong
Low	Medium	Medium	Belgium, Germany
High	Medium	Medium	Bangladesh
Medium	Medium	High	USA

Source: compiled by authors.

Figure 9 presents the potential markets for MSME’s exports considering the GDP and import growth estimates and the untapped potential. The size of the bubble represents the estimated import growth by 2027. Based on the above-mentioned parameters, we categorize our target markets into five clusters as in Table 8.

China and the UAE have a high untapped potential as well as are estimated to have a high GDP and import growth by 2027. So, MSMEs should concentrate on widening their exports to these markets. Additionally, USA and China are also among the top ten export markets for sectors with high MSME penetration.

Though India has the highest untapped potential in the USA, its GDP growth by 2027 is estimated to be 24% and the import growth rate is 30% which is in the medium range.

Hong Kong, Bangladesh, UK, Singapore, Belgium, and Germany rank next to USA, China, and UAE in the order of untapped potential which ranges between 3 and 6 billion USD. All of these have medium import growth rates ranging between 30% and 50%.

When we analyze the GDP growth estimates, Bangladesh has the highest estimate of 76%; Singapore, the UK and Hong Kong have medium GDP growth estimates of 37%, 31%, and 30% respectively while that of Belgium and Germany are 26% and 25% respectively. So, altogether, Belgium and Germany have low GDP growth estimates, medium import growth estimates and a medium untapped potential to absorb exports from India.

Based on the above analysis, we conclude that United Arab Emirates, China, the United States and Bangladesh have a higher potential to absorb Indian exports.

3. Conclusions

In the previous section, we presented the untapped potential for India at the aggregate level and the following section covers an analysis of the untapped potential values only for the 11 commodities we have recommended in Figure 6.

Table 9. Top ten destination countries based on export value for commodities listed in Figure 6.

Country	Untapped Value (in Bn USD)
United States of America	3.35
Nepal	0.97
Turkey	0.93
Nigeria	0.79
Indonesia	0.74
China	0.73
Egypt, Arab Rep.	0.68
Netherlands	0.67
Germany	0.64
Saudi Arabia	0.60

Source: Author’s calculations based on UN COMTRADE data from World Integrated Trade Source.

While Table 9 presents the top ten countries based on export values for the selected set of commodities, the following table presents the top three potential markets at a disaggregated level for each of the commodities.

Among all countries, the USA has a relatively higher potential to absorb India’s export of the commodities we have recommended. It has a high potential for exports of iron and steel, prepared feathers, artificial flowers, human hair, aluminum materials, and vegetable plaiting materials. China ranks the second largest with a high potential to absorb cereals, residues and waste from food industries, and edible preparations. The United Arab Emirates follows with the potential to consume carpets, textile made-up articles, and aluminum articles exported from India.

Table 10. Top three potential markets for each of the commodities recommended in Figure 6

Commodity	Potential Markets
Edible preparations	China, Hong Kong, Netherlands
Residues and waste from food industries	China, Italy, Turkey
Vegetable textile fibers	Bangladesh, Nepal, Sri Lanka
Textile made-up articles	UAE, Indonesia, Tanzania
Carpets	UAE, Saudi Arabia, Iraq
Cereals	Nepal, China, Egypt
Vegetable plaiting materials	Japan, USA, Netherlands
Aluminum articles	USA, Germany, UAE
Prepared feathers, artificial flowers, human hair	USA, Nigeria, South Africa
Iron and steel	USA, Turkey, Germany

Source: compiled by authors.

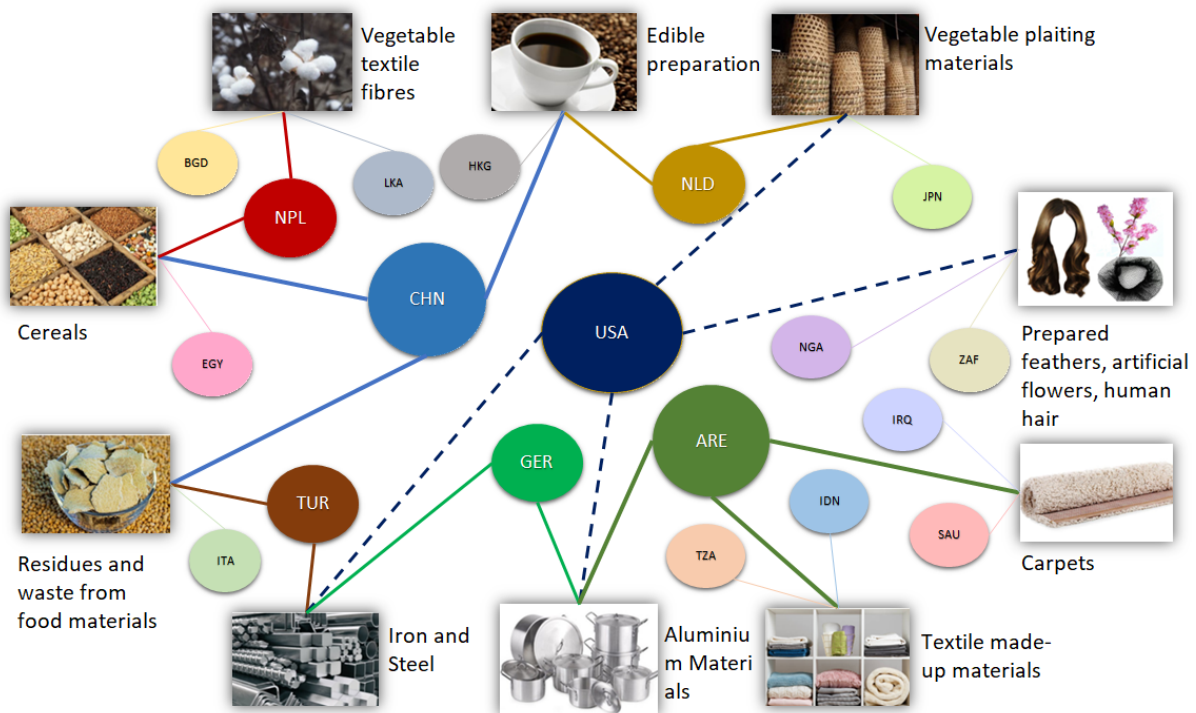


Figure 10. Potential markets for commodities recommended in section-1

Source: compiled by authors.

Overall, the study shows that MSMEs have a higher potential for exports in textiles and clothing, food products, vegetable and other agricultural products, and machinery and electrical equipment sectors. This reveals that there is an extended scope for MSMEs to diversify their current portfolio. COVID-19 and the accelerated pace of digitalization that followed have widened the scope for e-Commerce. MSMEs, and sellers in India could expand their territory by taking advantage of the e-Commerce marketplaces.

In terms of markets, our analysis reveals that MSMEs have a broad scope in the UAE, China, Bangladesh, and USA. It should be noted that the Indian government has signed a trade agreement with the UAE, and it is expected to boost India-UAE trade and MSME exports. India has been negotiating Free Trade Agreements with several other countries where the untapped potential is high. Furthermore, several domestic policy initiatives to boost production capacity, such as Production Linked Incentives (PLI) scheme may help MSMEs through the GVC linkages, as they can play a pivotal role in the value addition required for exports in these new focus sectors that also involve some of the sectors we have identified in this study, such as textiles.

Increased access to trade finance, trade facilitation and other infrastructural/logistical improvements and better ecosystem for complying with global quality standards are some of the institutional improvements that are required to promote MSME exports in general. In addition, Indian MSMEs exports may also expand on the unique philosophies and tangible products inspired from the rich Indian traditional knowledge that is allied with sustainability tenets, such as their overall nature-friendly and wholesome health-oriented, approaches. India's accelerated focus on urbanization, digitization and decarbonization, with an emphasis on gender equity and inclusive development, can mean many more opportunities for the Indian MSMEs which are in a special position to deliver on many of these broader goals while benefitting from the process.

Author Contributions: Conceptualization: Sumathi Chakravarthy; data curation: Data Curation; formal analysis: Sindhu Bharathi; investigation: Sindhu Bharathi; methodology: Sumathi Chakravarthy, project administration: Sumathi Chakravarthy; supervision: Badri Narayanan Gopalakrishnan; visualization: Sumathi Chakravarthy; writing- original draft: Sindhu Bharathi; writing - review & editing: Badri Narayanan Gopalakrishnan.

Conflicts of Interest: Authors declare no conflict of interest.

Data Availability Statement: Not applicable.

Informed Consent Statement: Not applicable.

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