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Trade Potential and Pathways for Shantou's Distinctive Products in Emerging Markets

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Abstract

Emerging-market import growth is often treated as evidence of export potential for local manufacturing clusters. This paper argues that the inference is incomplete: realized trade intensity, destination demand, and a firm's capacity to convert demand into compliant, repeatable orders are analytically distinct. Using Shantou's 2024-2025 official trade statistics and UN Comtrade data for eleven emerging destinations, the study combines a modified export-intensity index, a destination-product opportunity matrix, and a transparent counterfactual benchmark. Shantou's exports fell from RMB 46.625 billion to RMB 42.372 billion in 2025. Exports to ASEAN declined by 27.6%, accounting for 59.7% of the city's total export contraction in accounting terms, while several ASEAN markets recorded rapid growth in toy and apparel imports. The modified index for ASEAN consequently moved from 1.204 to 0.892, whereas the indices for the European Union and the United States rose despite absolute declines or only modest growth. At product level, Indonesia, Malaysia, and Thailand combined strong import momentum in HS9503 with high Chinese supplier shares; Chile, Malaysia, Brazil, and Thailand combined scale and growth in HS61+62. Mexico remained large but weakened and became subject to heightened tariff risk in 2026. These findings are consistent with a conversion bottleneck rather than a simple absence of demand, although the available data cannot directly test conversion barriers. The proposed pathway therefore links differentiated market portfolios, product-level compliance, exhibition-to-order conversion, and geographic, policy, platform, and organizational proximity. The framework offers a reproducible diagnostic for city-level trade policy while avoiding causal claims that the available two-year city data cannot support.

Keywords: Emerging Markets; Trade Potential; Export Intensity; Industrial Clusters; Market Conversion

1. Introduction

Local industrial clusters increasingly look to emerging markets when established destinations become volatile. The policy appeal is clear: young consumers, urbanization, and expanding retail systems appear to offer a new demand frontier for labor-intensive and design-intensive manufactures. Yet the movement from this observation to an export strategy is frequently too abrupt. A destination may import more of a product while a particular city exports less to it; a high Chinese supplier share may signal acceptance, but also intense price competition; and an exhibition may generate contacts without producing compliant, paid, and repeated orders. Trade potential is therefore not a single quantity that can be read from import growth or from a city's existing export share. It is a conditional relationship among demand, supply-market fit, trade costs, and organizational capabilities.

Shantou provides a useful setting for examining this distinction. The city has specialized clusters in toys, textile and apparel products, plastic products, and related manufacturing activities, together with trade fairs, cross-border e-commerce initiatives, and overseas Chaozhou business networks. Its recent trade performance, however, has been uneven. Official statistics from Shantou Statistics Bureau show that total exports declined by 9.1% in 2025, following a 9.2% decline in 2024. The 2025 contraction was especially pronounced in ASEAN and the United States, whereas exports to the European Union increased slightly. This pattern complicates a narrative in which geographic proximity or rising demand in emerging Asia automatically translates into local export expansion.

The analysis builds selectively on the trade-effect, trade-pattern, and trade-efficiency chain developed in earlier research on Foshan's manufacturing trade (Guan et al., 2023a, 2023b). That research demonstrated the value of distinguishing realized trade links from latent possibilities and of treating institutions and facilities as potential sources of trade inefficiency. The present study makes two modifications required by the Shantou evidence. First, it separates a descriptive export-intensity measure from the broader concept of potential, rather than inferring market priority directly from a high or low index. Second, it adds a destination-product screen and an order-conversion framework before discussing policy. The objective is not to estimate a causal trade frontier, but to identify where unrealized opportunities plausibly lie and which constraints must be relaxed before they can become exports.

Three questions organize the paper. How did Shantou's export destination specialization change between 2024 and 2025? Which emerging destination-product cells combine import scale, import momentum, and feasible supply-market fit? And what pathway can connect those opportunities to repeatable orders under changing tariff and compliance conditions? The answers contribute a reproducible city-level diagnostic and a more disciplined interpretation of trade-promotion activity. They also clarify why a stochastic-frontier gravity model, although valuable for later work, should not be replaced by an unestimated accounting gap when the available city-level panel is short.

The paper makes three contributions. First, it separates realized export intensity from trade potential. A location-quotient-type index describes relative destination specialization; it does not rank market opportunities. Second, it integrates a destination-product opportunity screen with an order-conversion chain running from exposure and qualified leads to testing, orders, fulfilment,

payment and repeat purchase. This extends gravity/SFA trade-potential studies, which typically estimate an aggregate frontier or efficiency score, and trade-fair/cluster studies, which explain temporary proximity but not conversion into repeatable trade. Third, it turns these distinctions into a reproducible city-level diagnostic that can be used when a long city-product-destination panel is unavailable. The novelty is therefore conceptual and methodological rather than econometric: potential is treated as conditional on demand, supply-market fit, trade costs and organizational conversion, not as a residual between observed and aggregate benchmark trade.

2. Analytical Framework, Data, and Method

2.1. Realized Intensity is not Unrealized Potential

Gravity models relate bilateral trade to economic mass and trade costs (Anderson and van Wincoop, 2003), while stochastic-frontier formulations distinguish random disturbance from systematic shortfalls below an estimated frontier (Atif et al., 2019; Ebaidalla and Ali, 2023). Such models are useful when a sufficiently long and consistently classified panel is available. With only two years of aggregate city data, however, estimating a frontier would give an appearance of precision unsupported by the research design. This paper instead uses a modified export-intensity index as a transparent description of relative destination specialization. The index compares a destination's share in Shantou's exports with the same destination's share in China's exports:

$$EII_{sdt}=\frac{\frac{X_{sdt}}{X_{st}}}{\frac{X_{cdt}}{X_{ct}}} \quad (1)$$

Here, X_{sdt} denotes Shantou's exports to destination d in year t, X_{st} denotes Shantou's total exports, and X_{cdt} and X_{ct} denote the corresponding Chinese export values. An index above one indicates relative destination concentration, not absolute export success. This distinction matters because both the numerator and denominator move. If Shantou's exports to a market decline but China's exports to that market decline faster, the index rises. Conversely, a falling index can coexist with rapid import growth in the destination. As in export-similarity analysis, the purpose is to compare structures rather than to establish causation (Finger and Kreinin, 1979). The index is consequently a diagnostic starting point rather than a ranking rule for market entry.

Potential is treated more cautiously as the feasible additional trade that could arise if identifiable frictions were reduced while demand and supply capabilities were present. This definition draws on the distinction between trade effects and trade efficiency in the earlier Foshan studies, but it does not import their estimated coefficients or conclusions. It also incorporates the heterogeneous-firm insight that only some firms can bear the fixed costs of exporting, compliance, and foreign-channel development (Melitz, 2003). A city-level opportunity is therefore an aggregate of heterogeneous firm-product possibilities, not an entitlement to a proportional share of destination imports.

2.2. Destination-Product Opportunities and Order Conversion

Analytically, the framework treats conversion as the missing link between destination demand and realized trade. Import growth identifies demand; China's supplier share identifies supply presence; neither establishes that a particular city's firms can convert that demand into compliant,

paid and repeated orders. The conversion chain therefore provides the microfoundational mechanism that links opportunity screening to export outcomes.

The opportunity screen uses three observable dimensions: destination import value, annual import growth, and China's share of destination imports. Import value provides a scale threshold; growth identifies momentum but can be distorted by prices and exchange rates; and China's share indicates the extent to which Chinese supply is already present. The last dimension is deliberately not interpreted monotonically. A high share can reduce the information cost of buyer acceptance while increasing head-to-head competition, whereas a low share can indicate room for entry or a poorly matched offer. Thresholds are used only to structure comparison: USD 200 million for HS9503 and USD 2 billion for HS61+62 define scale, and 10% annual import growth defines momentum. These are screening conventions, not estimated cut-offs. These thresholds are screening conventions rather than estimated cut-offs. To avoid presenting a single classification as definitive, Section 3.4 reports a sensitivity analysis using alternative scale thresholds (USD 100, 200 and 300 million for HS9503; USD 1, 2 and 3 billion for HS61+62) and alternative momentum thresholds (5%, 10% and 15% annual growth).

Observable demand must then pass through a conversion chain: exposure, qualified buyer lead, sample and testing, order, fulfillment and payment, and repeat purchase. Each stage involves different costs and responsible actors. Trade fairs and digital platforms primarily reduce search and information costs; laboratories, customs brokers, logistics providers, and financial institutions influence subsequent stages. Research on trade fairs supports their role as temporary proximity and knowledge-exchange mechanisms rather than automatic sales devices (Ramírez-Pasillas, 2010; Bathelt et al., 2014; Kalafsky and Gress, 2014). The relevant performance measure is therefore conversion through the chain, not attendance, online impressions, or intended matchmaking values alone.

2.3. Data and Reproducible Accounting

Shantou's export values, destination values, and broad product values are taken from the 2024 and 2025 Official Statistical Reports issued by the Shantou Statistics Bureau. Values are expressed in RMB 100 million. Chinese destination benchmarks and destination-product imports are drawn from UN Comtrade annual merchandise-trade records, accessed on 1 November 2026. The product analysis uses HS9503 for a comparatively narrow conventional-toy category and the sum of HS61 and HS62 for knitted and non-knitted apparel. The whole HS95 chapter is not treated as Shantou toys, because it also contains games and sports equipment. Import growth is calculated in current US dollars, so it reflects both quantities and prices.

The eleven destinations were selected using three transparent criteria: (i) they are emerging markets in ASEAN, the Middle East, Africa, or Latin America; (ii) Shantou's official statistical reports provide destination-level export values for both 2024 and 2025; and (iii) UN Comtrade provides comparable 2024–2025 import data for HS9503 and HS61+62. The set is therefore a data-availability sample of Shantou's emerging-market destinations, not a complete list. Viet Nam and the United Arab Emirates are excluded because consistent product-level observations were unavailable in the retrieved Comtrade batch; no values are imputed. This exclusion may affect

aggregate ASEAN and Middle East estimates: Viet Nam is an important regional manufacturing and consumption market, and the UAE is a re-export hub. Their omission could understate the level of regional demand and may alter the ASEAN aggregate intensity, but it does not affect the destination-product cells for which complete data are available. Table A1 reports inclusion and exclusion reasons, and Section 5 discusses the resulting scope condition.

Shantou's official reports use broad customs/statistical product categories, whereas UN Comtrade uses HS chapters. In this paper, "toys" in the city reports is compared with HS9503 and not with the whole HS95 chapter, which also includes games, sports equipment and festive articles. "Apparel and clothing accessories" is compared with HS61+62, although the city category may include additional accessories and may not map exactly to the two HS chapters. The comparison is therefore a product-family approximation. It supports destination-product screening but not a claim that Shantou's actual export value equals the matched HS import value. Table A2 summarises the correspondence. Any product-level customs data that allow a closer concordance should be used in future work; until then, the matrix should be read as identifying plausible opportunity cells rather than measuring Shantou's market share in each HS line.

3. Results

3.1. Export Contraction was Concentrated rather than Uniform

Shantou's exports declined by RMB 4.253 billion in 2025. The RMB 2.537 billion reduction in exports to ASEAN accounts for 59.65% of this total decline as an accounting decomposition, and ASEAN plus the United States accounts for 85.07% (Table 1). These percentages do not identify behavioral causation: other destinations and unclassified product groups also changed, and a destination's contribution is not a measure of policy impact. They nevertheless establish where the immediate adjustment occurred. The concentration is important for policy because a generic export-promotion response would obscure the fact that most of the contraction arose in two destinations.

Table 1. Shantou's export adjustment from 2024-2025

Indicator	2024	2025	Change (%)
Total exports	466.25	423.72	−9.12
Exports to ASEAN	92.01	66.64	−27.57
Exports to the EU	68.64	69.73	+1.59
Exports to the US	74.08	63.27	−14.59
Toys	121.01	110.60	−8.60
Electromechanical products	130.49	117.06	−10.29
High-technology products	27.38	26.78	−2.19

Note: Values are RMB 100 million; percentage changes are calculated from the displayed values and may differ slightly from official rounded growth rates. Data are from Shantou Statistics Bureau.

Product data point in the same direction but reveal different degrees of resilience. Toy exports fell by 8.60%, yet retained approximately 26% of total exports; electromechanical exports declined by 10.29%; high-technology exports declined by only 2.19%, with their share rising from about 5.87% to 6.32%. Apparel and clothing accessories declined by 18.3% in 2025 (Figure 1). Thus, the problem is not simply the disappearance of Shantou's established product base. It is a sharper adjustment in particular destination-product relationships, combined with a comparatively slower contraction in higher-technology products. The policy implication is to preserve supply capabilities while rebuilding market access, rather than to assume that a wholly new export structure must be created.

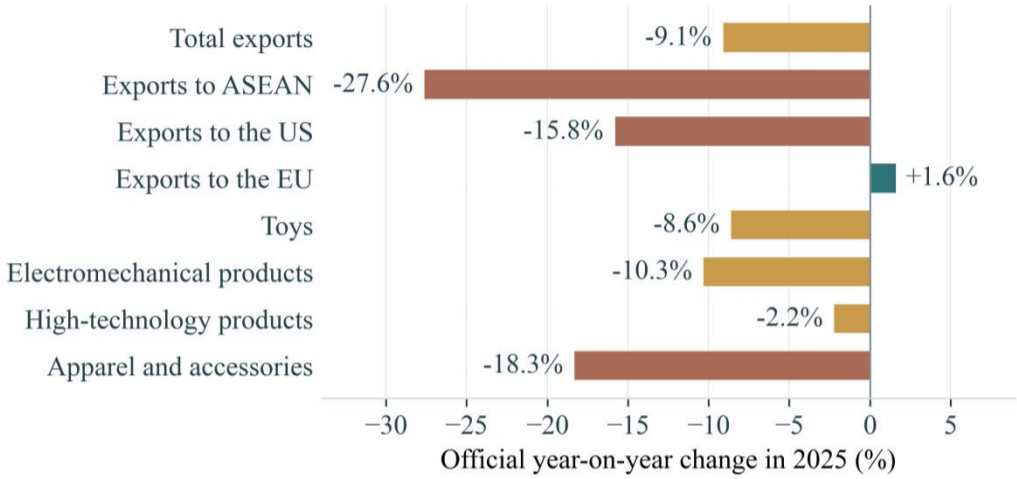


Figure 1. Official year-on-year export changes in 2025

3.2. Relative Specialization Shifted in Different Directions

The modified export-intensity index for ASEAN fell from 1.204 in 2024 to 0.892 in 2025, moving from relative concentration to relative underrepresentation. By contrast, the EU index rose from 1.116 to 1.213 and the US index from 1.081 to 1.339 (Table 2). The US result is especially instructive: Shantou's exports to the United States declined by 15.8%, but the Chinese export benchmark used in the denominator declined more sharply. An increase in relative intensity therefore cannot be read as an improvement in market conditions or as export growth. This is a general warning against using location-quotient-type measures as stand-alone performance indicators.

Table 2. Modified export-intensity indices

Destination	Shantou share 2024 (%)	Shantou share 2025 (%)	EII 2024	EII 2025
ASEAN	19.73	15.73	1.204	0.892
European Union	14.72	16.46	1.116	1.213
United States	15.89	14.93	1.081	1.339

Note: EII is the destination's share of Shantou exports divided by its share of Chinese exports. Data author's calculations and the calculation data are from Shantou Statistics Bureau and UN Comtrade.

A mechanical counterfactual clarifies the size of the ASEAN divergence without turning it into a forecast. China's exports to ASEAN increased by approximately 14.0% in the Comtrade benchmark. If Shantou's 2024 exports to ASEAN had grown at that rate, the 2025 value would have been RMB 10.489 billion rather than the observed RMB 6.664 billion, a gap of RMB 3.825 billion. This is not an estimate of exports that Shantou 'should' have achieved. Product composition, buyer relationships, exchange rates, and local supply conditions differ (Figure 2). The counterfactual simply shows that the local outcome diverged markedly from the national direction and warrants investigation at product and channel level.

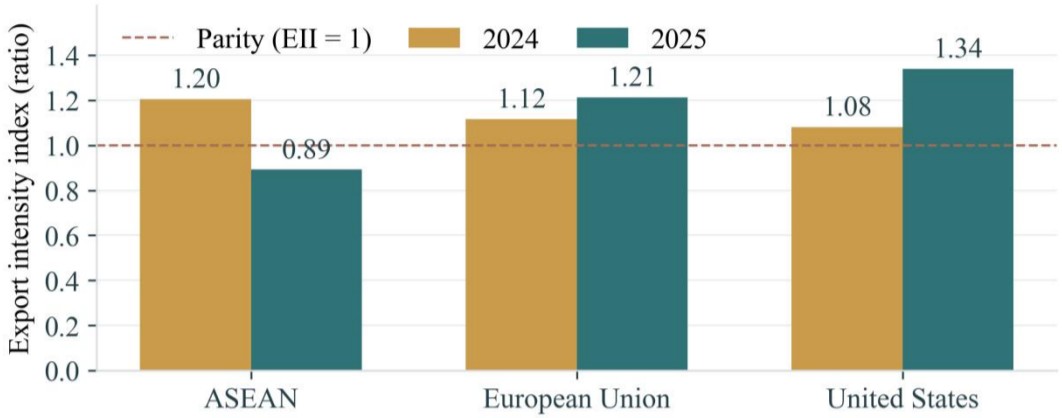


Figure 2. Modified export-intensity indices for Shantou from 2024-2025

3.3. Opportunity Varies by Destination-Product Cell

For HS9503, Indonesia, Malaysia, and Thailand stand out. Their 2025 imports were USD 343.53 million, USD 249.72 million, and USD 279.05 million, respectively, while annual growth reached 41.17%, 34.27%, and 33.92%. China already accounted for approximately 79%-90% of these imports. These figures suggest strong demand momentum and established acceptance of Chinese supply, but not easy entry. Suppliers must still differentiate by safety performance, design, intellectual property, delivery reliability, and age-appropriate product documentation. Chile and Saudi Arabia also passed the scale and momentum thresholds. The Philippines recorded 14.58% growth but fell just below the USD 200 million scale convention; it is better treated as a near-threshold testing market than excluded mechanically.

For HS61+62, Chile, Malaysia, Brazil, and Thailand combined import values above USD 2 billion with growth above 10%. Saudi Arabia was larger still, at USD 4.389 billion, but grew by 6.54%, making it a scale-oriented rather than momentum-oriented opportunity. Indonesia and Egypt recorded rapid growth from smaller bases, while Nigeria's apparel imports remained only USD 31.49 million. Nigeria's toy imports, at USD 6.87 million after a 38.92% decline, do not support a near-term scale priority despite a high Chinese supplier share. The matrix consequently separates 'high growth' from 'commercially material opportunity'.

Mexico illustrates why a 2025 opportunity screen cannot be extrapolated mechanically. It had the largest HS9503 imports in the sample, at USD 1.160 billion, and HS61+62 imports of USD 6.445 billion, but both declined in 2025. In addition, Mexico's tariff reform published on 29 December 2025 and effective from 1 January 2026 altered numerous tariff lines, including lines in

textiles, apparel, and toys, for origins without applicable preferential treatment (SIDOF, 2025). Mexico should therefore remain a high-scale but high-policy-risk market. Product-specific tariff classification, landed-cost recalculation, and small-order validation must precede any expansion decision; routing through a third country does not change origin.

The divergence is consistent with conversion difficulties, but direct evidence on firm-level barriers is not available in the data used here. It should therefore be treated as a hypothesis for firm-level validation rather than a demonstrated causal mechanism.

Table 3. Destination-product opportunity screen in 2025

Product / market role	Destinations	Evidence and interpretation
HS9503: scale + momentum	Indonesia; Malaysia; Thailand; Chile; Saudi Arabia	Imports exceed USD 200 million and growth exceeds 10%; prioritize compliant buyer conversion.
HS9503: near threshold	Philippines; South Africa	Growth exceeds 10%; the Philippines is just below the scale convention, while South Africa is below it.
HS61+62: scale + momentum	Chile; Malaysia; Brazil; Thailand	Imports exceed USD 2 billion and growth exceeds 10%; differentiate by product and channel.
HS61+62: stable scale	Saudi Arabia; South Africa	Large imports but growth below 10%; emphasize repeat orders and distribution.
High scale / conditional	Mexico	Large 2025 imports but declining demand and higher 2026 tariff risk; re-cost by tariff line.
Watchlist	Nigeria; Egypt; Indonesia (apparel)	Rapid growth in some cells but small scale; validate before fixed investment.

Note: Thresholds are analytical conventions, not estimated cut-offs. Data are from UN Comtrade. Mexico's policy-risk classification also uses SIDOF.

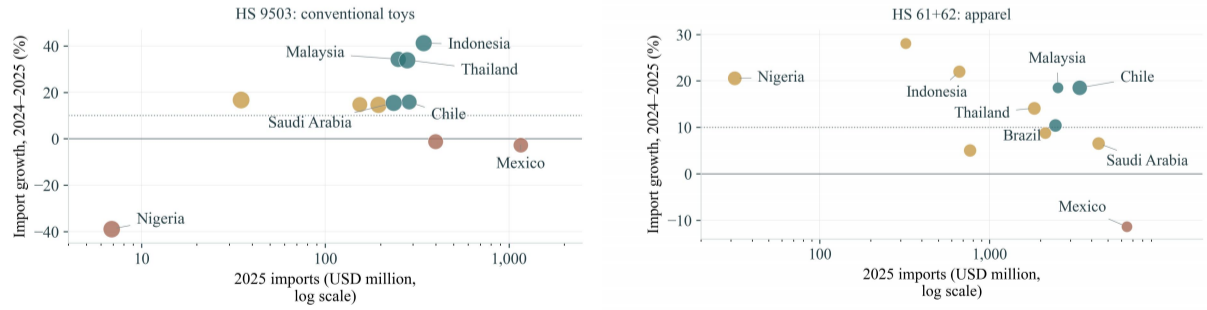


Figure 3. Destination-product opportunity matrix

Note: Bubble size indicates China's share of destination imports. Data are from UN Comtrade. Annual growth calculated from current USD values.

3.4. Threshold Sensitivity

Table 4 reclassifies destination-product cells under alternative thresholds. At the 10% growth convention, the robust core is Indonesia for HS9503 and Chile and Malaysia for HS61+62; Malaysia and Thailand for HS9503 and Brazil and Thailand for HS61+62 are priority-under-convention but threshold-sensitive. Lowering the HS9503 scale threshold to USD 100 million moves the Philippines from near-threshold to scale-and-momentum. Raising it to USD 300 million moves Malaysia and Thailand into a high-growth but sub-scale category. Lowering the HS61+62 growth threshold to 5% moves Saudi Arabia into scale-and-momentum, whereas raising it to 15% leaves only the fastest-growing cells in the priority group. These shifts do not overturn the main distinction between robust priority cells, threshold-sensitive priority cells, and watchlist cells. They imply that near-threshold cells should be treated as candidates for low-cost testing rather than fixed rankings.

Table 4. Threshold sensitivity of the opportunity matrix

Product	Scale threshold	Growth threshold	Robust priority cells	Cells that change category
HS9503	USD 100m / 200m / 300m	5% / 10% / 15%	Indonesia	Philippines enters at 100m; Malaysia/Thailand become sub-scale at 300m
HS61+62	USD 1bn / 2bn / 3bn	5% / 10% / 15%	Chile, Malaysia	Saudi Arabia enters at 5%; Brazil/Thailand threshold-sensitive at 15%

4. Pathways from Opportunity to Repeatable Trade

The following pathways are proposed as responses to a plausible conversion bottleneck, not as estimates of their causal effects.

4.1. Construct a Differentiated Market Portfolio

The results support four market roles rather than a single league table. The first is a conversion-priority group, represented by Indonesia, Malaysia, and Thailand for toys and by Chile, Malaysia, Brazil, and Thailand for apparel. These markets merit coordinated buyer development, product adaptation, and compliance preparation because scale and momentum coincide. The second is a stable-scale group, notably Saudi Arabia for apparel, where repeat purchasing, local distribution, and product fit may matter more than headline growth. The third is a defensive or conditional group, including Mexico, where existing scale must be weighed against tariff and demand risks. The fourth is a watchlist, including Nigeria and other small-base markets, where digital testing and distributor validation should precede inventory or fixed investment.

These roles should be assigned at destination-product level, not attached permanently to a country. Thailand can be a priority for both toys and apparel, but the relevant buyers, standards, price points, and channels differ. Indonesia offers rapid apparel growth from a smaller base and very strong toy growth; the resource commitment should reflect that difference. A portfolio approach also prevents policy from chasing every fast-growing market simultaneously. Annual review should use new import data, tariff changes, conversion results, and payment experience to move cells between groups.

4.2. Make Compliance and Product Architecture Part of Market Selection

For toys, market entry begins with a product dossier rather than a shipment. Age grading, mechanical and chemical safety evidence, warning labels, traceability, intellectual-property review, and destination-language instructions should be mapped to the exact stock-keeping unit. Electric or connected toys require additional assessment and cannot be treated as equivalent to conventional HS9503 products merely because they are sold in the same category. For apparel, fiber composition, care labeling, size systems, colorfastness, restricted substances, and packaging requirements should be checked by destination and buyer. Compliance expenditure is a fixed cost of entering a product-market cell; spreading it across repeated orders is more effective than treating each exhibition lead as a separate project.

Product architecture can reduce this burden. A limited number of common platforms or base designs can be combined with destination-specific colors, sizes, packaging, and documentation. Small-batch trials provide information about sell-through and returns before a supplier commits to a full production run. This approach is consistent with heterogeneous-firm trade theory: firms with stronger design, quality-control, and working-capital capabilities can bear higher fixed entry costs, while smaller firms may need shared testing, consolidated logistics, or lead-firm coordination. Public policy is most useful when it lowers duplicative fixed costs without subsidizing indefinitely uncompetitive transactions.

Table 5 illustrates how the general principles in Sections 4.2-4.3 would translate into destination-specific actions. The examples are illustrative and must be verified against the latest destination regulations before commercial use.

4.3. Rebuild Exhibitions and Platforms Around Conversion

Shantou's trade fairs, selection centers, and digital channels should be evaluated as connected stages in a buyer-relationship process. Before an exhibition, participating firms need destination-specific buyer lists, compliant sample sets, and a quotation template that includes testing, packaging, freight, taxes, and payment terms. During the event, lead records should distinguish casual contacts from qualified buyers and capture product, certification, volume, and delivery requirements. After the event, seven-, thirty-, and ninety-day follow-up points can track sample dispatch, test completion, quotation revision, order status, and reasons for loss. The appropriate denominator for conversion is the number of qualified leads, not total visits.

Digital channels perform a complementary rather than substitutive role. They can test product images, price ranges, and buyer response at relatively low cost, but cross-border consumer sales do not automatically reveal wholesale demand or regulatory feasibility. Overseas warehouses should

likewise be conditional tools. They can shorten delivery and support returns where order density is proven, yet they add inventory, tax, and obsolescence risks in uncertain markets. A sequential rule—digital test, distributor or small wholesale order, repeatable shipment, then local inventory—aligns fixed investment with evidence. Shantou's 2026 measures explicitly support overseas warehouses, overseas promotion, branding, and intellectual-property certification; implementation should preserve this staged logic (Shantou Municipal People's Government, 2026).

Table 5. Illustrative compliance and channel actions by destination-product cell

Destination-product	Compliance / entry barrier	Channel / market-entry action
Indonesia-HS9503	Toy safety standards, age grading, Indonesian-language labels/instructions, IP review; verify current SNI/import registration requirements	Work with a registered local importer/distributor; test small batches through specialty toy retail and local e-commerce; prepare compliant sample sets
Indonesia-HS61+62	Indonesian-language fibre/care labels, restricted substances, packaging; verify importer requirements	Local distributor; small wholesale trial; check landed cost and payment terms before scale-up
Malaysia-HS9503	Toy safety and consumer-protection requirements; warning labels; IP	Local distributor; specialty retail and e-commerce test; qualified leads with certification evidence
Thailand-HS9503	Thai industrial standards/labelling where applicable; importer registration	Local importer; sample testing; small-order validation before inventory
Chile-HS61+62	Spanish labelling, fibre/care information, customs classification	Local distributor; small wholesale order; test sell-through before fixed investment
Brazil-HS61+62	Portuguese labelling, certification where applicable, complex tax/landed cost	Local importer; re-cost by tax line; small-order validation
Saudi Arabia-HS61+62	Arabic labelling, conformity/registration requirements; verify SASO/SABER procedures	Established local distributor; repeat-order focus; compliance dossier before quotation
Mexico-HS9503/HS61+62	2026 tariff reform, tariff-line classification, NOM/labelling where applicable	Recalculate landed cost by tariff line; local importer; defer scale-up until policy risk is priced

4.4. Operationalize Multiple forms of Proximity

Geographic proximity includes shipping reliability, consolidation, and delivery time, not merely distance on a map. Policy proximity refers to the firm's ability to use customs procedures, origin rules, technical-regulation information, and export-credit insurance correctly. Platform proximity concerns access to buyers, data, testing, logistics, and payment services through organized intermediaries. Organizational proximity includes overseas Chaozhou business networks when they provide verifiable buyer introductions, local regulatory knowledge, dispute-resolution support, and

reputation mechanisms. Treating these networks only as cultural sentiment would miss their potential economic function; assuming that kinship guarantees trustworthy transactions would be equally mistaken.

This formulation extends cluster research emphasizing the interaction between local agglomeration and global connections (Porter, 2000; Rychen and Zimmermann, 2008; Li and Bathelt, 2018). A local cluster supplies product variety and rapid coordination, while temporary proximity at fairs and durable organizational links carry knowledge across borders. The critical policy task is to connect these assets. For example, an overseas business association can help identify a distributor, a local laboratory can clarify testing requirements, and a platform can record subsequent sample and order progress. None is sufficient alone, but together they reduce different frictions in the conversion chain.

4.5. Establish Risk Gates and Measurable Policy Evaluation

Every priority destination-product cell should pass four risk gates before scale-up. The regulatory gate verifies product classification, technical requirements, labeling, and intellectual property. The commercial gate confirms landed cost, buyer margin, minimum order quantity, and a price that remains viable under plausible tariff or freight changes. The financial gate assesses buyer credit, currency exposure, payment security, and export-credit-insurance coverage. The operational gate tests production capacity, delivery reliability, returns, and after-sales responsibilities. Failure at one gate should trigger redesign or postponement rather than be hidden by an aggregate export target.

Table 6. Evaluation indicator framework

Stage	Indicator	Definition	Data source	Frequency
Input	Firms trained / compliant sample sets	Number of firms; share with destination-specific dossier	Program records	Per event
Intermediate	Qualified buyer leads	Leads meeting product, certification, volume and payment criteria / total leads	CRM / follow-up records	Monthly
Intermediate	Sample and testing completion	Samples dispatched; tests completed/passed	Lab and CRM records	Monthly
Output	Successful orders	Paid orders / qualified leads; first-order value	Export/CRM records	Quarterly
Output	On-time delivery	Share of orders delivered on time; claim rate	Logistics records	Quarterly
Outcome	Repeat purchases	Buyers with ≥2 orders within 12 months / first-order buyers	CRM/customs records	Annual
Resilience	Destination concentration, overdue payments, margin	HHI; overdue ratio; margin after full landed cost	Finance records	Annual

Evaluation should follow the same chain. Input indicators include firms trained and samples prepared; intermediate indicators include qualified leads, testing completion, and buyer response time; output indicators include paid orders, on-time delivery, and repeat purchase; and resilience indicators include destination concentration, claims, overdue payments, and margin after full landed cost. These measures allow public programs to learn which constraints they actually relax. They also prevent domestic sales, intended matchmaking values, and export values from being combined into an inflated achievement number. 'Guanghuo Xing Tianxia' should therefore be treated as a channel and coordination framework whose export effects must be demonstrated, not presumed.

Table 6 converts the evaluation chain into measurable indicators. The key operational tests are qualified buyer leads, paid first orders, on-time delivery and repeat purchases, not exhibition attendance or intended matchmaking values.

5. Discussion

The principal empirical finding is a mismatch between local export contraction and destination import growth. This mismatch weakens two common shortcuts. One treats high existing trade intensity as proof that more of the same relationship is desirable; the other treats low intensity as evidence that a market should be neglected. In Shantou's case, the ASEAN index fell below one while several ASEAN destinations recorded rapid import growth in the city's characteristic products. The correct inference is neither automatic retreat nor automatic expansion. It is to examine whether product composition, compliance, channels, logistics, and buyer conversion explain the divergence. A low realized share may indicate unrealized potential only when these additional conditions are present. The interpretation that conversion barriers explain the divergence is therefore cautious: the data show a mismatch, not its firm-level causes. Customs microdata, exhibition follow-up records and interviews are needed to identify which conversion stages are binding.

The analysis also qualifies the interpretation of export-promotion infrastructure. Fairs and platforms can create temporary proximity and reduce search costs, as the trade-fair literature demonstrates, but their value depends on what happens after contact. If product dossiers are incomplete, landed-cost quotations are unreliable, or follow-up stops at sample dispatch, additional exposure may have little durable effect. Conversely, a smaller number of qualified buyers linked to testing and repeat-order services may produce more resilient trade. This is why the conversion chain, rather than event scale, occupies a central place in the proposed pathway.

Several limitations define the scope of the conclusions. (i) Two years of city data cannot establish a trend or identify causal effects. (ii) Official broad product categories and international HS categories are not perfectly congruent; the product matrix is therefore a screening device rather than a measure of Shantou's actual share in each HS line. (iii) Destination import growth in current dollars includes valuation effects. (iv) China's supplier share is not Shantou's share, and no customs microdata are used to allocate destination demand among Chinese cities. (v) The counterfactual gap is an accounting benchmark, not a forecast. Future research should construct a longer city-product-destination panel, use firm customs and exhibition-follow-up records where confidentiality permits,

and estimate a stochastic-frontier gravity model only after those data requirements are met. Firm interviews should test which frictions are binding rather than assume the sequence proposed here.

The exclusion of Viet Nam and the UAE is a scope condition rather than a claim that these markets are unimportant; their inclusion could change aggregate ASEAN and Middle East intensity measures, but not the product-destination cells analysed here.

6. Conclusions

Shantou's emerging-market strategy should begin from a conversion diagnosis rather than a general claim that overseas demand is expanding. In 2025, exports to ASEAN accounted for the largest share of the city's export contraction, while Indonesia, Malaysia, and Thailand displayed strong import momentum in conventional toys and several emerging markets combined scale and growth in apparel. Relative export intensity moved in ways that cannot be interpreted without absolute values and benchmark changes. The opportunity is therefore real but conditional: it depends on matching the right product to the right destination and carrying qualified demand through compliance, quotation, fulfillment, payment, and repeat purchase.

A practical pathway follows from this evidence. Market portfolios should distinguish conversion-priority, stable-scale, conditional, and watchlist cells; compliance should be built into product architecture; exhibitions and digital platforms should be managed through measurable conversion stages; and geographic, policy, platform, and organizational proximity should be connected rather than listed as separate advantages. These measures do not guarantee export growth, but they provide a defensible basis for allocating public and firm resources. They also offer a framework that other specialized manufacturing cities can adapt without confusing descriptive trade intensity with causal trade potential.

Appendix A. Supplementary tables

Table A1. Destination inclusion and exclusion

Destination	Region	Included	Reason / data availability
Indonesia, Malaysia, Philippines, Thailand	ASEAN	Yes	Shantou 2024–2025 destination values and Comtrade HS data available
Saudi Arabia, Egypt	Middle East/North Africa	Yes	Same
Nigeria, South Africa	Africa	Yes	Same
Brazil, Chile, Mexico	Latin America	Yes	Same
Viet Nam	ASEAN	No	Consistent product-level Comtrade observations unavailable; not imputed

Destination	Region	Included	Reason / data availability
UAE	Middle East	No	Same; also a re-export hub, so import data interpretation differs

Table A2. Correspondence between local statistical categories and HS categories

Shantou statistical category	HS approximation used	Included	Excluded / caveat
Toys	HS9503	Tricycles, scooters, dolls, stuffed toys, etc.	HS9504 games, HS9505 festive articles, HS9506 sports equipment excluded
Apparel and clothing accessories	HS61+62	Knitted and non-knitted apparel	Some accessories, fabrics and local classification differences may not match exactly
Electromechanical / high-tech	Not used in product matrix	—	Broad city categories cannot be mapped to a single HS chapter

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Conceptualization, methodology, writing—original draft preparation, writing—review and editing, supervision, project administration, funding acquisition, J.G.; formal analysis, software, validation, visualization, X.B.; investigation, resources, data curation, L.Z. The author has read and agreed to the published version of the manuscript.

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The data presented in this study are contained within the article. Derived indicators were calculated from public resources available from the Shantou Statistics Bureau (https://www.shantou.gov.cn/tjj/) and the United Nations Comtrade database (https://comtradeplus.un.org/). Further inquiries can be directed to the corresponding author.

Conflict of Interest:

The authors declare no conflict of interest.

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