

STORYBOARD

Global Market Expansion Strategy: Visualizing Data for Decision-Making

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Executive Summary

Terra Cotta Foods (TCF) is planning an ambitious expansion into Latin America and Asia to diversify suppliers, secure supply chains, and mitigate geopolitical risks. This storyboard presents four hierarchical visualizations that systematically address your two critical questions:

1. **Which regions and countries show the highest GDP (purchasing capacity) to justify investing in distribution centers?**
2. **How does Population (labor force/consumer base) correlate with economic potential in target markets for sourcing or manufacturing?**

Each visualization builds upon the previous one, moving from strategic overview to tactical execution, culminating in resource allocation decisions aligned with identified market opportunities.

The Big Idea

Allocate 50% of resources to Engineering and 20% to Research, targeting emerging markets like Asia-Pacific (high-volume, developing purchasing power) and Latin America (growing economies, manageable entry barriers).

Narrative Flow: Four Strategic Visualizations

This analysis follows a structured progression from market identification to resource allocation:

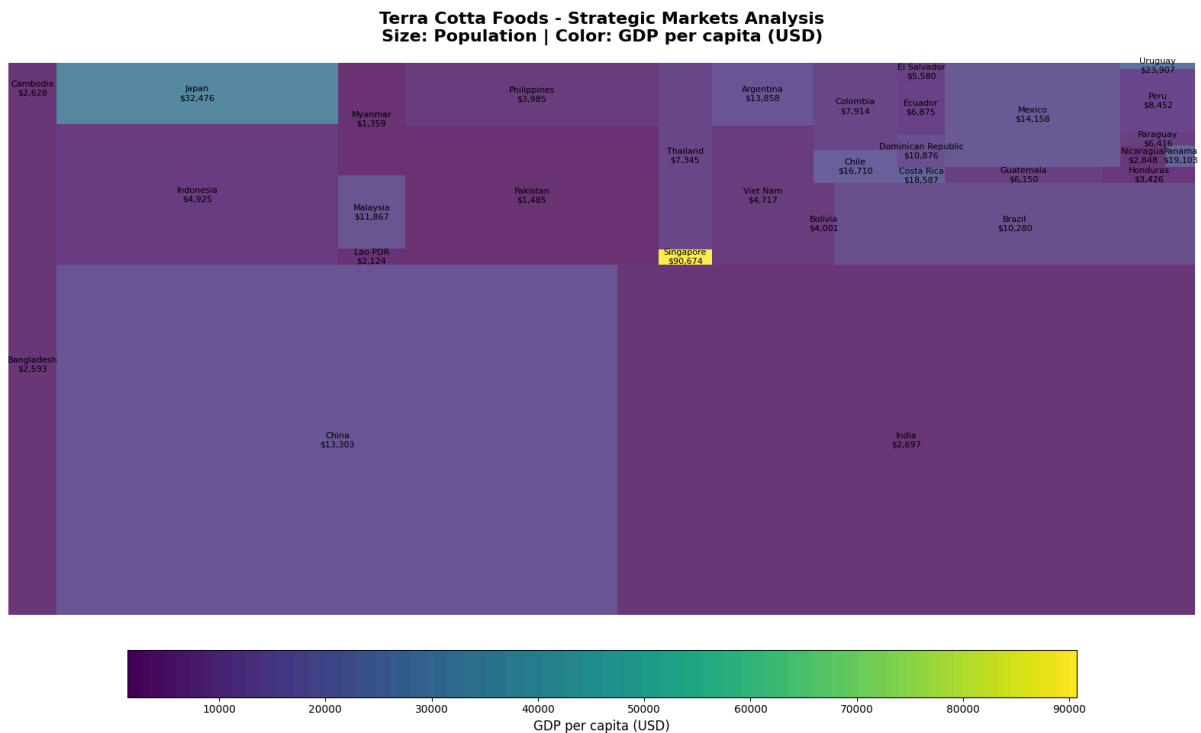
1. Treemap: Strategic Market Identification

Business Question: Where are the largest market opportunities by GDP and population?

What it Shows: Hierarchical view of global markets segmented by GDP per capita tiers (High, Upper-Middle, Lower-Middle, Low Income). Rectangle size represents population; color intensity represents GDP per capita.

Key Insight: Asia-Pacific dominates population-based opportunity (China: 1.4B, India: 1.4B), while Latin America offers balanced growth markets (Brazil: 217M, Mexico: 128M).

Decision Point: Prioritize Asia-Pacific for volume-based distribution centers and Latin America for balanced market entry with lower geopolitical risk.



2. Sunburst: Dual-Perspective Analysis

Business Question: How do our internal organizational capabilities align with external market structures?

What it Shows: Two complementary views: (1) TCF's internal department structure (Engineering, Operations, Sales, Marketing), and (2) Regional market hierarchy (Continent → Income Group → Country).

Key Insight: Engineering represents 50% of TCF's internal capacity, which must be deployed toward products suitable for Asia's Upper-Middle Income cluster and Latin America's emerging markets.

Decision Point: Align product development roadmap with target market income levels - premium products for High-Income markets, cost-optimized solutions for emerging markets.



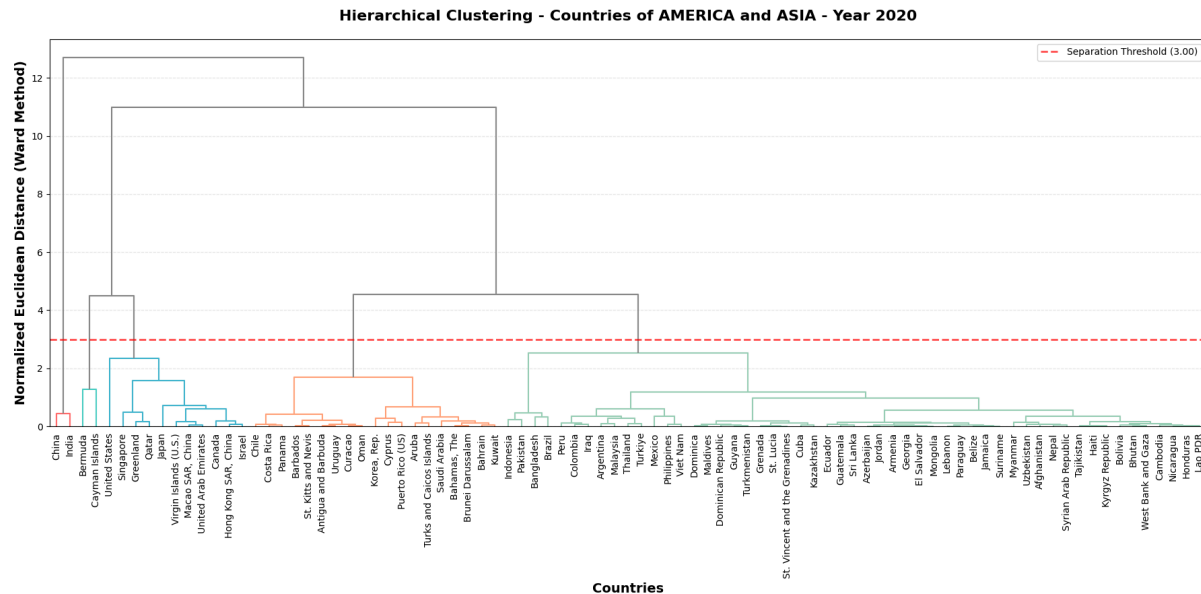
3. Dendrogram: Risk-Opportunity Clustering

Business Question: Which countries share similar risk-opportunity profiles for coordinated entry strategies?

What it Shows: Hierarchical clustering analysis grouping countries by GDP per capita and population similarity. Identifies natural market segments for differentiated approaches.

Key Insight: Five distinct clusters emerge: (1) High-GDP Small Markets, (2) Mid-GDP Growth Markets, (3) Large Population Emerging Markets, (4) Low-GDP High-Population Markets, (5) Small Developing Markets.

Decision Point: Deploy cluster-specific strategies - establish manufacturing in Cluster 3 (low labor costs, large workforce), distribution centers in Cluster 2 (balanced growth + purchasing power).



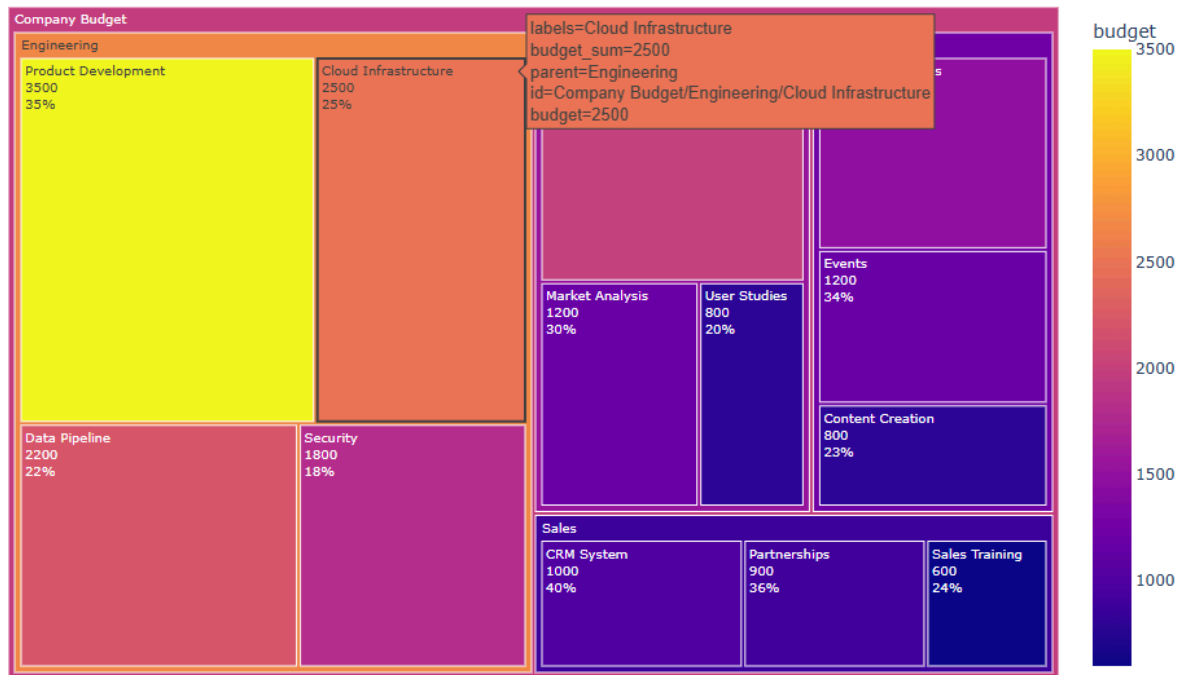
4. Circular Treemap: Resource Allocation Validation

Business Question: How should TCF allocate its \$20M budget to execute the expansion strategy?

What it Shows: Current budget distribution across departments and projects: Engineering (50%), Research (20%), Marketing (17.5%), Sales (12.5%). Also includes geographic market capacity visualizations.

Key Insight: Product Development (\$3.5M) is TCF's largest single investment. Geographic visualizations confirm Asia's population dominance and identify "sweet spot" markets (high GDP + large population).

Decision Point: Validate that 50% Engineering investment aligns with Asia-Pacific and Latin America expansion requirements. Consider increasing Sales budget (currently 12.5%) to support multi-region operations.



Key Insights & Recommendations

Priority Markets for Distribution Centers

- **Tier 1 (Immediate):** Brazil, Mexico (Latin America) - balanced GDP growth + manageable regulatory environments
- **Tier 2 (12-18 months):** India, Indonesia, Thailand (Asia-Pacific) - massive consumer bases with rising purchasing power
- **Tier 3 (Strategic Reserve):** Vietnam, Philippines - lower GDP but high growth trajectory

Sourcing & Manufacturing Locations

- **Primary:** India, China (Cluster 3) - large labor force, established infrastructure
- **Secondary:** Mexico, Brazil - proximity to North American markets, USMCA advantages

Resource Allocation Adjustments

- Maintain Engineering focus (50%) but ensure Product Development aligns with emerging market requirements
- Increase Sales budget from 12.5% to 18% to support multi-region operations and partner management
- Allocate Research (20%) toward market-specific product adaptations and supply chain optimization

Risk Mitigation

- Diversify across both regions simultaneously - avoid over-concentration in Asia
- Establish dual-sourcing agreements within each cluster to mitigate geopolitical disruption

Implementation Roadmap

Phase 1 (Q1-Q2): Market validation visits to Brazil and Mexico; finalize distribution center site selection

Phase 2 (Q3-Q4): Establish initial operations in Latin America; begin due diligence for Asia-Pacific manufacturing partners

Phase 3 (Year 2): Launch Asia-Pacific distribution network; scale operations based on Latin America learnings

Phase 4 (Year 3): Full multi-region integration; optimize supply chain across all clusters

These visualizations provide a strategic roadmap for TCF's global expansion. Each chart answers a specific business question and leads directly to actionable decisions on where to invest, how to allocate resources, and which markets to prioritize.