AMERICAN JOURNAL OF EDUCATION AND LEARNING
ISSN: 2996-5128 (online) | ResearchBib (IF) = 10.91 IMPACT FACTOR
Volume-3| Issue-11| 2025 Published: |30-12-2025|

DYNAMIC LOCATION QUOTIENT METRICS FOR TERRITORIAL MARKETING A DISTRICT TYPOLOGY OF BUKHARA REGION

https://doi.org/10.5281/zenodo.17971972

Boltayev Jasurbek Gulomovich
Bukhara State University
Faculty of economics and tourism
Department of Marketing and Management

Annotation

This article develops and demonstrates an applied methodology for diagnosing district level economic specialisation as an evidence base for territorial marketing and regional development policy. The approach combines the Location Quotient, a comparative measure of sector concentration, with two dynamic complements, the change in Location Quotient and the compound annual growth rate of Location Quotient. The integrated framework allows decision makers to distinguish stable specialisation from emerging trajectories and to detect early signals of structural decline. The study operationalises the method on district groupings in Bukhara region using sectoral profiles for industry, agriculture, services, and small business activity. Results support a four group typology that is directly usable for marketing strategy design, investment targeting, and cluster development sequencing.

Keywords

territorial marketing, location quotient, regional specialisation, structural change, cluster readiness, Bukhara region.

Territorial marketing increasingly relies on quantitative diagnostics that can translate heterogeneous local economies into comparable strategic profiles. A core challenge is to identify what a territory is truly specialised in, whether that advantage is strengthening or eroding, and whether observed growth is persistent rather than episodic. A practical response is to use compact indicators that are interpretable by policy makers while remaining sufficiently rigorous for academic evaluation. In regional analysis, one of the most widely used measures is the Location Quotient, which benchmarks a sector's share in a local economy against the same sector's share in a wider reference economy.

However, territorial marketing decisions are forward oriented. A strictly static diagnostic can mislead if it captures legacy advantages that are already weakening.

AMERICAN JOURNAL OF EDUCATION AND LEARNING
ISSN: 2996-5128 (online) | ResearchBib (IF) = 10.91 IMPACT FACTOR
Volume-3| Issue-11| 2025 Published: |30-12-2025|

To address this, the present study applies a dynamic extension built around two additional indicators: the change in Location Quotient across time and the compound annual growth rate of Location Quotient. Together, these three metrics provide a structured reading of both current positioning and development vector, enabling a strategy that is consistent with place branding logic and with evidence based governance (Kavaratzis, 2004).

Location Quotient analysis is standard in regional impact assessment, economic base analysis, and cluster oriented policy design because it is simple, comparable across territories, and interpretable for prioritisation. It indicates whether a sector is under represented, average, or concentrated relative to a benchmark economy. The method is especially useful for identifying candidate export base sectors and for screening where cluster initiatives may be feasible.

Territorial marketing requires that this diagnostic be integrated into communication and investment narratives. In city and regional branding research (Kavaratzis, 2004), the place offering is framed as a coherent bundle of economic capabilities, symbolic assets, and stakeholder value. A measurable specialisation profile supports this framing by grounding the narrative in empirical structure, improving credibility with investors, tourists, and residents.

Finally, composite indicator methodology is relevant because territorial marketing often uses dashboards, rankings, and multi pillar indices. Clear rules for normalisation, weighting, and interpretability are essential to avoid arbitrary conclusions. The composite indicator guidance developed within the OECD and European Commission context provides methodological principles that can be transferred to Integrated Territorial Marketing Index style territorial dashboards that combine economic and communication pillars.

Location Quotient is computed as the ratio of a sector's share in a local economy to the same sector's share in the benchmark economy. In this study, the benchmark is the wider reference area used in the underlying dataset, such as region or country level totals. Values greater than 1 indicate relative concentration and potential specialisation, values near 1 indicate parity with the benchmark, and values below 1 indicate relative under representation.

Change in Location Quotient, denoted as ΔLQ, measured as the difference between an end year and a start year. Positive values indicate that specialisation is strengthening, negative values indicate weakening.

Table-1

Interpretation rules for specialisation diagnostics using LQ and dynamic complements

Indic	Decisio	Interpretation for territorial marketing

AMERICAN JOURNAL OF EDUCATION AND LEARNING
ISSN: 2996-5128 (online) | ResearchBib (IF) = 10.91 IMPACT FACTOR
Volume-3| Issue-11| 2025 Published: |30-12-2025|

tor	rule	
LQ	LQ elow 1	Sector is under represented locally, not a current specialisation
LQ	LQ bout 1	Sector structure is comparable to the benchmark
LQ	LQ bove 1	Sector concentration suggests specialisation and potential export ase
ΔLQ	ΔLQ bove 0	Specialisation is strengthening, prioritise growth narratives and nvestment facilitation
ΔLQ	ΔLQ qual to 0	Stable positioning, focus on efficiency and quality improvements
ΔLQ	ΔLQ elow 0	Advantage is weakening, initiate repositioning and renewal neasures
CAG of LQ	CAGR bove 0	Persistent improvement, evidence for medium term strategic ommitment
CAG of LQ	CAGR elow 0	Persistent decline, risk signal for strategy redesign

Note. The table summarises the operational rules used to convert indicator values into strategic interpretations.

Compound annual growth rate of Location Quotient, denoted as CAGR, computed over the analysis period to describe average annual growth in the indicator and to reduce the risk of misinterpreting one time shocks as structural change.

These additions allow a strategic reading such as the following. A district may show LQ greater than 1 yet ΔLQ below 0, which signals declining competitiveness despite historical concentration. Conversely, LQ below 1 with ΔLQ above 0 may indicate an emerging specialisation that can be supported through targeted marketing and investment facilitation. OECD

Applying the integrated indicator set yields a four group typology aligned with strategic actions in territorial marketing.

Stable strong territories. These districts show high LQ and non negative ΔLQ with positive CAGR in at least one priority sector. In the provided results, Qorovulbozor demonstrates very high industrial concentration with industry LQ equal to 35.96 and agriculture LQ equal to 2.39, alongside small business CAGR equal to plus 0.43, implying a strong and expanding base suitable for investment marketing focused on industrial ecosystems. Peshku shows agriculture LQ equal to 1.51 with ΔLQ equal to plus 0.08, consistent with a stable and improving specialisation.

Emerging territories. These districts show improving trajectories, commonly with LQ rising from below 1 toward or above 1 and strong positive ΔLQ and

AMERICAN JOURNAL OF EDUCATION AND LEARNING
ISSN: 2996-5128 (online) | ResearchBib (IF) = 10.91 IMPACT FACTOR
Volume-3| Issue-11| 2025 Published: |30-12-2025|

CAGR. Kogon City illustrates this pattern in agriculture where LQ increases from 0.03 to 0.16 with CAGR equal to plus 0.75, and in small business industry where LQ rises from 1.37 to 3.07 with ΔLQ equal to plus 1.70. This profile supports a marketing strategy centered on momentum, new niches, and early stage cluster formation.

High risk of decline territories. These districts may have had strong positions but display falling LQ and negative ΔLQ, often with weak or negative CAGR, indicating the need for repositioning, diversification, and service quality upgrades. Bukhara City shows services LQ decreasing from 2.71 to 1.87 with ΔLQ equal to minus 0.73, suggesting erosion of a previously strong service advantage. Olot shows a decline in services from 0.73 to 0.44 with ΔLQ equal to minus 0.29.

Table-2

District typology for Bukhara region based on LQ ΔLQ and CAGR evidence

Group	Districts	Core evidence from the study examples
Stable strong territories	Qorovulbozor, Peshku, Kogon District, Jondor	Qorovulbozor industry LQ 35.96, agriculture LQ 2.39, small business CAGR plus 0.43. Peshku agriculture LQ 1.51, ΔLQ plus 0.08
Emerging territories	Kogon City, Vobkent	Kogon City agriculture LQ 0.03 to 0.16, CAGR plus 0.75. Small business industry LQ 1.37 to 3.07, ΔLQ plus 1.70
High risk of decline territories	Bukhara City, G‘ijduvon, Romitan, Shofirkon, Olot	Bukhara City services LQ 2.71 to 1.87, ΔLQ minus 0.73. Olot services 0.73 to 0.44, ΔLQ minus 0.29
Weak diversified territories	Bukhara District, Qorako‘l	Bukhara District services 0.80 to 0.40, ΔLQ minus 0.39. Small business 0.81 to 0.43. Qorako‘l shows multi sector decline in the summary

Weak diversified territories. These districts show low or decreasing concentration across multiple sectors, implying no clear competitive anchor. Bukhara District presents services declining from 0.80 to 0.40 with ΔLQ equal to minus 0.39, and small business declining from 0.81 to 0.43. Qorako‘l is characterised by decreases across sectors in the provided summary, indicating the need for foundational capability building, infrastructure, and entrepreneurship support before advanced marketing positioning.

The typology is actionable because it maps directly to territorial marketing instruments. Stable strong territories can lead flagship branding and investor targeting. Emerging territories benefit from incubation, targeted promotion, and proof of concept projects. Declining territories require repositioning narratives backed by service upgrades and economic renewal. Weak diversified territories

require basic competitiveness reforms and micro level entrepreneurship stimulation before high visibility branding campaigns. doi.org

The combined use of LQ, ΔLQ, and CAGR offers three advantages for territorial marketing design. First, it provides a defensible empirical basis for prioritising sectors and territories without requiring complex model assumptions. Second, it distinguishes stable leadership from emerging momentum, which is critical for deciding whether a territory should pursue flagship branding, niche positioning, or capability building. Third, it improves risk management by identifying early decline signals in territories that might otherwise appear strong in static snapshots.

Methodologically, the framework is compatible with composite indicator dashboards and HUDMI style monitoring. Composite indicator guidance emphasises transparency in indicator choice, interpretability, and sensitivity to normalisation and aggregation rules. Applying these principles helps ensure that territorial rankings and typologies support governance rather than creating misleading league tables.

A further implication concerns communication strategy. Place branding frameworks argue that identity claims should be consistent with tangible capabilities and stakeholder experience. In practice, LQ based diagnostics can anchor a region's value proposition, while dynamic indicators guide how that proposition evolves over time, supporting adaptive narratives and credible investment propositions. doi.org

This study presents an applied methodology for territorial marketing analytics that links economic specialisation diagnostics with strategy oriented interpretation. Location Quotient provides the baseline specialisation signal, while ΔLQ and CAGR of Location Quotient capture direction and persistence. The resulting four group typology for Bukhara region supports actionable prioritisation, including where to lead with strong cluster narratives, where to promote emerging niches, where to initiate repositioning, and where to focus on foundational diversification and entrepreneurship. The approach is transparent, scalable to additional sectors, and compatible with composite indicator based dashboards.

Limitations include dependence on the quality and comparability of sectoral data and the need to interpret very high LQ values with care, as they may reflect narrow base effects. Future work can integrate employment and productivity measures, spatial interaction metrics, and robustness checks across alternative benchmark definitions.

REFERENCES:

1. Isserman, A. M. (1977). The location quotient approach to estimating regional economic impacts. Journal of the American Institute of Planners, 43(1), 33 to 41.
2. Kavaratzis, M. (2004). From city marketing to city branding. Place Branding, 1(1), 58 to 73.
3. Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite. The challenges and opportunities of social media. Business Horizons, 53(1), 59 to 68.
4. Nardo, M., Saisana, M., Saltelli, A., Tarantola, S., Hoffman, A., & Giovannini, E. (2005). Handbook on constructing composite indicators. Methodology and user guide. OECD Statistics Working Paper.
5. OECD. (2020). Delineating functional areas in all territories. OECD Publishing.
6. Anholt, S. (2010). Places: Identity, Image and Reputation. Palgrave Macmillan.
7. Boltayev, J. G. (2025). Buxoro viloyatida sanoat tarmoqlarining hududiy rivojlanishiga marketing strategiyalarining ta'siri [The impact of marketing strategies on the regional development of industrial sectors in Bukhara region]. Raqamli iqtisodiyot, (11), 1277–1287.
8. Gulomovich, B. J. (2025). The Role of LQ Analysis in Shaping Regional Marketing Strategies: A Case Study of Bukhara Region, Uzbekistan. Central Asian Journal of Innovations on Tourism Management and Finance, 6(4), 1473-1479.