

There's Nothing to Smile About: Value Distribution Along Global Fashion Value Chains

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Global value chains, positioning, and value capture

- Global fashion production is organized through **fragmented but hierarchically governed GVCs**
- Firms and regions **enter the chain at different stages**:
 - **Pre-production**: design, R&D, product development
 - **Production**: manufacturing, assembly
 - **Post-production**: branding, marketing, distribution
- These positions imply **asymmetric access to value**:
 - Higher value-added in pre- and post-production activities
 - Lower value capture in manufacturing stages

⇒ **Smile curve**: value distribution reflects structural positioning within the chain

⇒ **Key implication**: firms and regions are **heterogeneously remunerated** depending on their functional specialization and this may deeply affect firm performances, business and sectoral dynamics etc.

Why Tuscany as an object of study?

- Advanced region with a strong manufacturing (and fashion-related) tradition
- Dense network of:
 - Intermediate input suppliers
 - Specialized industrial service providers
- Presence of numerous fashion brands with heterogeneous characteristics also in terms of presence in the regional production system
- Acts as a **strategic node** in global value chains

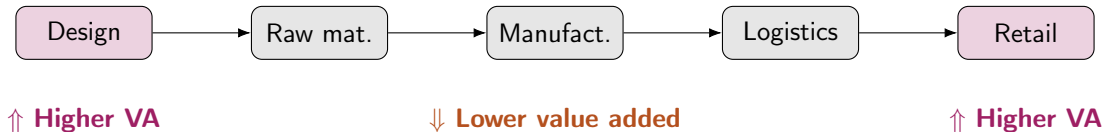
⇒ **Dual structure**: Local manufacturing base vs. global brand control functions; Territorial embeddedness vs. global coordination; Import competition via outsourcing of labor-intensive stages

Contribution of the paper

- Empirical assessment of value distribution in fashion GVCs starting from a macroeconomic perspective
- Micro-characterization of firms in the different fashion GVCs according to their position
- Link between value capture and firm dynamics and performances

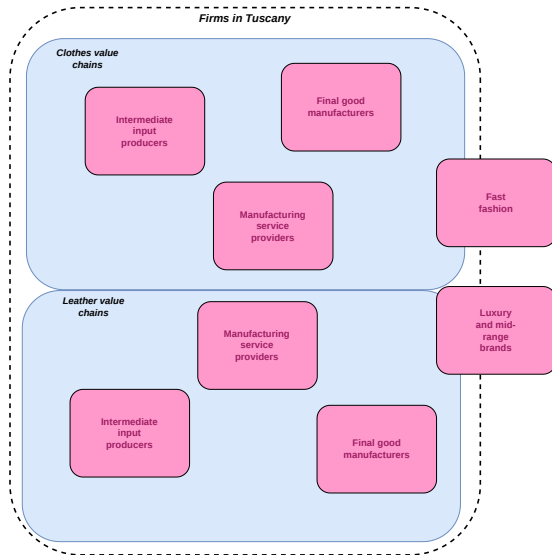
- **Smile curve:** upstream (R&D, design) and downstream (marketing, retail) capture more value than midstream manufacturing (Mudambi, 2008; Rungi and Del Prete, 2018, Turchetti and Ferraresi, 2025).
- **Functional specialisation** penalises production-intensive regions, deepening income and wage inequalities (Riccio et al., 2023).
- **In fashion specifically:** value capture stays with brand-owning firms; manufacturers retain limited profitability despite high technical skills (Coli et al., 2022).
- **Territorial dimension:** GVC governance may systematically exclude regions from the highest value-added segments (Capello & Rodríguez-Pose 2025).

A Stylised Value Chain



- The **smile curve** representation: VA is higher at the two ends and lower in the middle.
- The pattern holds for **value added and profits**, but *not* for wages — labour income follows a different logic.

Tuscany in Fashion GVCs



Tuscany in Fashion GVCs

Manufacturing hub

- Final goods producers (garments, leather goods, footwear)
- Intermediate goods producers (tanning, textiles)
- Subcontractors / *conto-terzi* service providers

Strategic node

- Fashion brands controlling design, branding, commercialisation
- High-value functions *co-located* with manufacturing

Key tension

When lead firms are locally embedded $\Rightarrow$ region **internalises** high-VA activities.

When only manufacturing subsidiaries are present $\Rightarrow$ profits accrue **outside** the region.

Network relationships are **complex and non-linear**: overlapping connections, quasi-integration, blurred boundaries between manufacturing and services.

Firm Typology Along the Chain

By activity

- Manufacturing firms
- Service-oriented firms (*conto-terzi*)

By control of intangibles

- Lead / brand-owning firms
- Contract manufacturers

By chain position

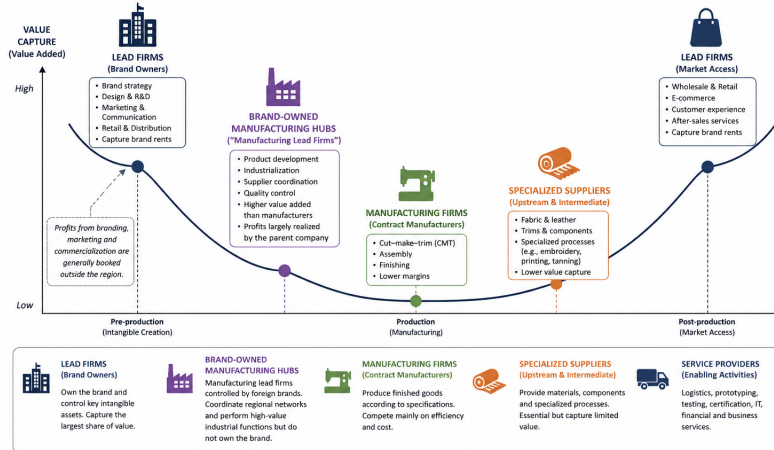
- Final goods producers
- Intermediate goods producers

In practice, firms **combine** characteristics: a final-goods manufacturer may also act as a subcontractor; a mid-sized leather firm may partially control design; a tannery may supply both brands and contract manufacturers directly.

Tuscan firms in the smile curve

FASHION GLOBAL VALUE CHAIN: ACTORS AND VALUE CAPTURE

The Smile Curve and Firm Taxonomy (including brand-owned manufacturing hubs)



Notes: The vertical position indicates the typical level of value capture (profits and wages). The curve is stylized and not to scale. Brand-owned manufacturing hubs (e.g., YSL Manufacturing, Gucci Industrial Operations) are located between lead firms and independent manufacturers.

Data Sources

Core: Interregional–Intercountry SUT (IRICSUT)

- **IRPET interregional SUT**: 43 sectors $\times$ 54 products, all Italian NUTS2 regions — intra- and interregional production/demand linkages.
- **FIGARO inter-country SUT**: extends coverage to international trade flows.
- **Coeweb trade data**: disaggregates Italian exports/imports at the regional level.

Complementary micro-level data

- Two IRPET surveys on Tuscan fashion firms
- ISTAT data sources $\Rightarrow$ disaggregate fashion bundle into **10 NACE sectors / 15 products**
- Firm-level balance sheet and census data (profitability, wages, survival, innovation)

Methodology: From IO Tables to Value Chains

Starting from the IRICSUT, we estimate fashion-related value chains via:

$$Y_{i,z}^p = (I - BD)^{-1} Fd_{i,z}^p$$

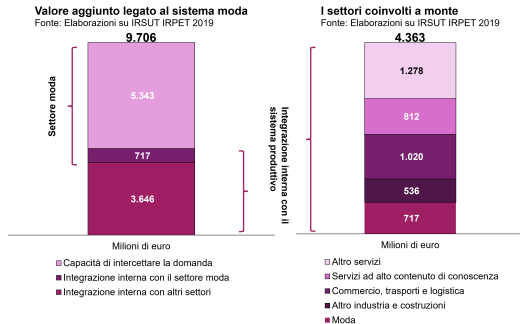
where $Fd_{i,z}^p$ is the final demand vector for product i in area z , D is the market-share matrix, and B is the input-coefficient matrix.

- Results converted to **value added** using product-based VA coefficients.
- **Internal integration** measured via *backward hypothetical extraction*: zeroing out intra-regional fashion coefficients and comparing with baseline.
- **Disaggregation** of the fashion bundle using survey + ISTAT data.
- **Micro-enrichment**: firm-level heterogeneity grafted onto macro-consistent SUT nodes.

Key Limitations & How We Address Them

Limitation	Our approach
Foreign countries exogenous	Integrate IRPET SUT with FIGARO + Co-eweb regional trade data
Fashion treated as homogeneous	Disaggregate into 10 sectors / 15 products via surveys
Sector $\neq$ function (pre/post-production invisible)	Aggregate to high-VA vs. production stages; complement with trade-margin estimation
Lead firms in wholesale sectors	Macro-consistent micro disaggregation; identify high-VA firms across sectors
Within-sector heterogeneity	Enrich with firm-level balance sheet data

Fashion GVCs in Tuscany – Aggregate Picture (2019)

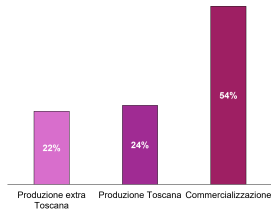


- Total fashion-related value added (excluding extra-production activities): approximately **EUR 10 billion**
- **EUR 5.3 billion** generated through external market access (final demand captured abroad or in other Italian regions)
- **EUR 4.3 billion** generated through internal integration (local suppliers and subcontractors activated)

The Smile Curve in Action

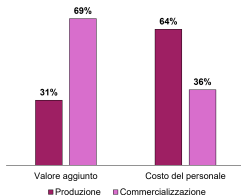
La distribuzione del valore

Fonte: Elaborazioni su interSLL IRPET 2019, dati Istat



La distribuzione del valore interna alla Toscana: valore aggiunto vs. costo del lavoro

Fonte: Elaborazioni su interSLL IRPET 2019, dati Istat



When pre-production and post-production activities are included (luxury-brand case study):

- More than **50% of value added** is captured by wholesale activities.
- The smile-curve pattern applies to **value added and operating profits**...
- ... but **not to labour income**: wages do not follow the same distribution.

Implication

Firms that participate in production but do not control branding and retailing capture only a *small share* of the total value created along the chain.

Market Power and Profitability

	Coeff.	
Intercept	11.81	***
No market power	-2.62	***
Size (SM)	0.51	
Diversified	0.93	
Apparel	-3.76	***
Leather	-3.06	***
No power $\times$ SM	3.61	***

$N = 1241$; IHS-transformed profits

- Firms **lacking market power** earn significantly lower profits.
- Size does *not* have a direct effect, but the **interaction** shows that larger firms partially offset weak bargaining power.
- **Worst outcome**: small firms *and* no market power — most exposed to margin compression.

Market Power and Wages

	Coeff.	
Intercept	10.14	***
No market power	-0.20	***
Size (SM)	0.50	***
Diversified	0.009	
Apparel	-0.47	***
Leather	-0.34	***
No power $\times$ SM	0.20	**

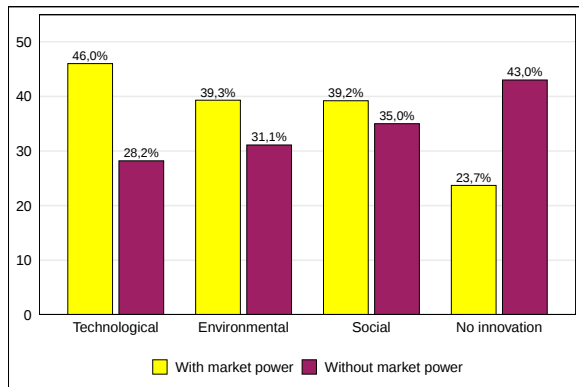
$N = 1241$; log wages; $R^2 = 0.31$

- Firms without market power pay **significantly lower wages**.
- Scale has a **direct** positive effect on wages (unlike profits).
- Weak bargaining power $\Rightarrow$ poorer outcomes for *both* capital *and* labour.

Note

The smile curve affects *profits* more sharply than wages, but **both** are penalised in lower value-chain positions.

Market Power and Innovation



- Firms **without market power** are far less likely to innovate (**43%** non-innovators vs. 23.7%)
- Sectoral marginal effects (probability of *not* innovating):
 - Apparel: +**30%*****
 - Textiles: +18%***
 - Leather goods & footwear: +9%***
- Fashion-related sectors show the **largest** and most significant penalty.

Summing Up

1. Fashion GVCs in Tuscany show a **strongly asymmetric** value distribution, consistent with the smile curve.
2. **Lead firms** controlling design, branding, and commercialisation capture the bulk of value added; manufacturers retain thin margins.
3. Tuscany has a **dual structure**: manufacturing hub + strategic node. But the two roles generate very different economic outcomes.
4. At firm level, **weak market power** translates into lower profits, lower wages, lower survival, and less innovation — reinforcing each other.
5. A key nuance: vertical dependence can provide *stability* (predictable orders) but at the cost of **limited autonomy and structural upgrading constraints**.

Policy Implications

Support upgrading capabilities

- Investments in **design, branding, and intangible assets** for manufacturing firms
- Strengthen linkages between production and higher-VA functions *within* the region

Protect the manufacturing base

- Address **generational turnover** challenges
- Support industrial commons and specialised local knowledge

Account for GVC governance constraints

- Upgrading *within* hierarchical chains is structurally limited for smaller suppliers
- Collective / district-level strategies may be more effective than firm-level interventions alone

Open question

How can regions sustain their manufacturing base *while* improving value capture? No easy answer — but understanding the structural constraints is the first step.