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Global value chains, private governance and multiple end-markets: insights from Kenyan leather

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Abstract

This article analyses how the private governance of global value chains (GVCs) varies across multiple end-markets. This is explored through a two-stage mixed-methods analysis of Kenya's participation in leather value chains serving Europe, China, India and the COMESA region. We first draw on transaction-level customs data to analyse private governance in terms of the *stability* of buyer-supplier interactions and presence of *intermediaries*. We then interrogate these results through supplier interviews. Our article highlights the combined role of *product specifications* and *trust* in shaping private governance, and heterogeneity of GVCs across the global North and South, as well as within the South. It further questions commonly held assumptions that lower quality products (generally characterising Southern end-markets) are necessarily governed by market-based coordination mechanisms. We therefore challenge links established in the GVC literature between product standards and private governance.

Keywords: Global value chains, end-markets, governance, Kenya, transaction-level customs data, leather

JEL classifications: O, M

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1. Introduction

Global value chain (GVC) and related global production network (GPN) research has overwhelmingly focused on suppliers in the global South serving end-markets in the global North, overlooking until recently Southern end-markets. This lacuna is augmented by the growth in significance of South–South value chains, with developing countries now exporting more to the global South than to the global North (UNCTAD, 2015).

An emerging literature has begun to explore the different value chain configurations across Northern and Southern end-markets with a focus on standards and product specifications (Kaplinsky and Farooki, 2011; Murphy, 2012; Barrientos et al., 2016; Pasquali, 2021). South–South value chains have been associated with the exchange of comparatively less sophisticated and lower quality products (Navas-Alemán, 2011). Furthermore, scholars have argued that more stringent social and environmental standards in Northern compared with Southern end-markets are likely to result in the outsourcing of higher value-added activities (Kaplinsky et al., 2011; Staritz et al., 2011). These considerations are consistent with claims that Southern suppliers exporting intermediate and/or finished goods to Northern end-markets experience more direct and stable relationships with buyers, while

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South–South value chains are more likely to involve market-based and trader-driven interactions (Bazan and Navas-Alemán, 2004; Tessmann, 2018). In other words, as product specifications and standards vary, the *private governance* of value chains is expected to vary across networks linked to Northern and Southern end-markets, with the former comprising more consolidated interactions between buyers and suppliers.

Along with standards and product specifications, another important determinant of private governance is *trust*. In GVCs, trust can evolve from 'contractual-' to 'competence-' and 'goodwill trust', as lead firms increasingly rely on suppliers to perform certain tasks without taking unfair advantage (Sako, 1998; Raikes et al., 2000). Case study research has shown that suppliers serving Northern end-markets are more likely to develop 'trust-based relationships' with buyers (Fessehaie and Morris, 2013; Horner and Murphy, 2018). Yet, trust can also emanate from actors' societal and territorial 'embeddedness' in shared cultures, social norms and institutions (Granovetter, 1985; Hess, 2004). For instance, geographical and cultural distance often limits the formation of trust bonds, encouraging firms to delegate governance of the value chain to third-party intermediaries (Perri and Buchan, 2019). Importantly, however, despite recognition of the role of trust in economic geography, existing research has devoted insufficient attention to its implications for the private governance of GVCs serving different end-markets (Murphy, 2006).

We therefore concur with scholars arguing that 'when the geography of end-markets varies, differences in governance may well emerge' (Horner and Nadvi, 2018, 224). While extensive attention has been given to how Northern firms govern their interactions with suppliers in the global South (Gereffi et al., 2005; Ponte and Sturgeon, 2014), the present literature *lacks in-depth exploration of the factors informing private governance across multiple end-markets*. To address these issues, this article asks: how does private governance vary across value chains serving different end-markets?

We tackle this question through an examination of Kenya's participation in leather value chains. Kenya's leather industry provides an ideal scenario of a sector governed by buyers across one Northern (Europe) and three Southern end-markets (China, India and the COMESA region). Our analysis focuses on two aspects that inform the governance of GVCs: *product specifications* and *trust*. We do this following a sequential two-stage analysis that combines quantitative and qualitative methods of data inquiry (Coe, 2012, 395).

First, we draw on transaction-level customs data for the period 2006–2015 to compare private governance across different end-markets, and test the assumption that Northern buyers establish more *stable* (i.e. measured as average time length) and *direct* (i.e. indicating the absence of third-party intermediation) interactions with Kenyan suppliers than their Southern counterparts. Our results show that Europe- is associated with significantly more stable and direct interactions compared with China-led value chains. Nevertheless, this variation is less significant for India- and COMESA-led value chains, raising questions on the determinants of private governance across end-markets and the homogeneity of South–South value chains.

The second stage of our analysis interrogates this outcome. Drawing on qualitative interviews with Kenyan suppliers, we find that considerations of product specifications are critically informed by the 'process of trust-building between network agents' (Hess, 2004, 177). In Europe-led value chains, 'competence trust' is built through direct and stable buyer–supplier interactions to ensure product standards and traceability. On the contrary, in China-led value chains, trader-driven transactions prevent the formation of trust ties, perpetuating instability and limiting knowledge sharing. The situation is more complex with India and the COMESA end-markets. In the former, despite a certain degree of

societal embeddedness, we find that physical distance and uncertainty over the other party's behaviour has so far constrained the process of trust building, resulting in unstable interactions. Conversely, in COMESA-led value chains, firms' societal and territorial embeddedness within a shared set of formal and informal institutions has favoured the formation of direct and stable interactions, despite comparatively lower product specifications and standards.

Overall, our article contributes to the understanding of how GVCs are governed in a context of multiple end-markets. In making these observations, the article draws attention to the heterogeneity of value chains across the global North and South, as well as within the South. We contend that differences in the private governance underpinning the interaction between Kenyan suppliers and Southern buyers (across China, India and the COMESA region) are critically affected by dynamics of trust formation which evolve over time and differ by end-market. We further challenge existing literature linking private governance to product standards, which incorrectly assumes that lower quality products (generally characterising Southern markets) are governed by market-based coordination mechanisms (Bazan and Nevas-Alemán, 2004; Horner and Murphy, 2018; Tessmann, 2018). The remainder of the article is structured as follows: Section 2 examines the literature on value chain governance, trust and end-markets; Section 3 defines the two-stage methodology informing the data analysis; Section 4 presents the empirical results and Section 5 concludes by highlighting our key contributions to ongoing debates in the GVC and GPN literatures.

2. GVC governance and multiple end-markets

2.1. The private governance of GVCs

In the economic geography literature, the concept of 'private governance' has been used to indicate how lead firms manage and organise production flows within GVCs (Lee, 2019; Ponte et al., 2019). The term *private* prioritises the role of buyers in governing their interactions with suppliers, distinguishing it from *public* and *social governance*, which relate instead to the role of states and civil society actors in regulating GVCs (Gereffi and Lee, 2016; Alford and Phillips, 2018).

Scholars have developed several analytical frameworks to conceptualise private governance. Gereffi (1994) first distinguished between buyer- and producer-driven value chains depending on where *lead* firms are located in the production process. Drawing on this work, Gibbon (2001) brought attention to the nature of the interaction between lead firms and their suppliers. Accordingly, when the costs of vertical coordination are not justified, value chains tend to operate through third-party intermediaries (i.e. traders). 'Governance by traders is loose and indirect' with 'low control over the supply function' and 'much looser prescriptions' compared with buyer-driven GVCs (Gibbon, 2001, 352). This is particularly the case in agro-based and apparel value chains, where lead firms use 'direct sourcing' as a way to increase the speed, reliability and traceability of supply (Gereffi, 1999; Gibbon, 2001; Dolan and Humphrey, 2004). These value chains are often underpinned by complex organisational structures, including the use of private standards and codes of conduct, whose scope increases with the challenge of coordinating the exchange of complex information and preventing opportunistic behaviour (Nadvi, 2008). Instead, when quality is relatively low and production standardised, it becomes 'uneconomic and impractical' for buyers to develop and manage direct links with foreign suppliers,

favouring the formation of market-based and 'trader-driven value chains' governed by arm's length interactions (Gibbon, 2001, 351; Palpacuer et al., 2005).

Depending on the degree of vertical coordination exerted by lead firms over suppliers, Gereffi et al. (2005) further describe five types of coordination mechanisms (from marketbased to hierarchy) used to transfer information and monitor suppliers' compliance. The degree of vertical coordination is in turn attributed to three factors: the complexity of the transaction; the parties' ability to codify information and the capabilities of the supplybase (Gereffi et al., 2005). As products and knowledge become more complex and suppliers' capabilities more constrained, lead firms consolidate interactions with suppliers, increasing 'the degree of monitoring' and 'explicit coordination' (Gereffi et al., 2005, 85– 86).

Building on Gereffi et al. (2005), recent studies have explored the governance of GVCs by focusing on the stability of buyer–supplier relationships, and the assistance provided to suppliers (e.g. Gulati, 1995; Glückler, 2005; Brancati et al., 2017). For instance, drawing on China's customs data, Dallas (2015) conceptualises governance in terms of 'transactional stability', quantified through the coefficient of variation of a firm's monthly transactions with a specific buyer. Similarly, focusing on the multinational furniture retailer IKEA, Ivarsson and Alvstam (2011, 735, 740) explore how the firm's decision to 'provide repeat orders' and 'establish long-term supplier-relations' hinges on the firm's need to facilitate suppliers' learning of product and process technologies. A number of case studies have also focused on the use of intermediaries in governing GVCs, associating the presence of third-party traders with less consolidated networks, low product quality and market-based interactions (Gereffi, 1999; Gibbon, 2001; Palpacuer et al., 2005; Dannenberg and Nduru, 2013).

2.2. Product specifications, governance and end-markets

The share of South–South exports has grown from 13% to 26% of the total between 2001 and 2017, with developing countries now exporting more to the global South than to the developed North.¹ The rapid emergence of value chains with increasingly heterogeneous end-markets has led scholars to explore their differences in terms of private governance, as well as their implications for suppliers' upgrading prospects (Kaplinsky et al., 2011; Navas-Alemán, 2011; Staritz et al., 2011; Tessmann, 2018). This literature has taken a comparative approach to the study of North–South and South–South value chains, highlighting variations in terms of product and process standards, the location of value-added functions, and what this implies for private governance and upgrading.

A first significant finding is that more complex product and process standards demanded by buyers in developed countries constitute an entry barrier for suppliers in the global South, who often lack the necessary production and managerial capabilities to meet such requirements (Ouma, 2010; Staritz et al., 2011). To the extent that these capabilities are not readily available, Northern buyers have been observed to provide their suppliers with the information required by means of increasingly direct and repeat interactions (Alcacer and Oxley, 2014; Gereffi, 2014). For instance, following increases in volume and product ranges in the apparel value chain in the late 1990s, large European and American retailers started bypassing traditional traders to source clothing directly from manufacturing

¹ Authors' calculation based on UN-COMTRADE (https://comtrade.un.org/).

companies, strengthening control over the quality and timing of delivery (Gereffi, 1999; Gereffi and Frederick, 2011). Conversely, lead firms in Southern end-markets have been shown to demand compliance with comparatively less sophisticated standards and regulations, limiting the scope for more consolidated forms of private governance in favour of market-based trade (Horner and Murphy, 2018; Horner and Nadvi, 2018).

Drawing on evidence from the Brazilian furniture and footwear industries, Navas-Alemán (2011) argues that suppliers of finished products to Northern end-markets are more likely to undergo close monitoring from their buyers. On the contrary, suppliers serving domestic and Southern markets tend to operate through 'market-based relationships', where buyers are not directly involved in defining and monitoring product specifications. Such a key difference is the result of more complex product characteristics and tighter deadlines that require Northern buyers to 'exert control over intermediaries, local producers and often input suppliers as well' (Bazan and Navas-Alemán, 2004, 5).

A second critical finding concerns the location of value-added production functions in relation to supplying firms (Kaplinsky and Farooki, 2011; Thrasher and Najam, 2012). Kaplinsky et al.'s (2011) analysis of Gabon timber and Thailand cassava value chains shows that relatively higher labour costs, a propensity towards capital intensive activities and stricter environmental regulations in Northern end-markets, are likely to favour the outsourcing of labour-intensive tasks to suppliers in the global South. Conversely, Southern buyers 'place a premium on low price and large volumes' maintaining a preference for raw material they can easily process inland (Kaplinsky et al., 2011, 16). This has important repercussions for the private governance of value chains, given that transactions with Northern buyers 'occur mostly through long-term forward contracts which provide a predictable income stream for producers and local aggregators' (Ibid.). By contrast, exports of unprocessed material to the South 'are sold on a spot-price basis, and provide for far less predictability' (Ibid.).²

Exploring the governance of the Ivorian cashew value chain, Tessmann (2018) bridges Navas-Alemán's (2011) research on final goods' value chains and Kaplinsky et al.'s (2011) analysis of processing stages across Northern and Southern end-markets. The author describes a 'bipolar governance structure': on the one hand, a 'trader-driven segment' linking Ivorian farms to Indian processing plants and involving the export of unprocessed raw nuts; and on the other hand, a 'buyer-driven segment' linking Ivorian processors to Northern buyers and comprising the export of processed goods. Critically, Tessmann (2018, 264) argues that his findings 'are consistent with studies that characterise South–South value chains as being less tightly controlled, with a decreased significance of quality-related standards and lower entry barriers than those chains feeding into Northern end markets'.

Overall, more demanding product and process standards and a preference for the outsourcing of labour-intensive tasks suggest that governance of North–South value chains is more likely to contain direct and stable firm-to-firm interactions. Conversely, South–South value chains are expected to involve market-based and trader-driven transactions, comprising less stringent product specifications and a dominance of upstream unprocessed exports. Despite this important comparative evidence across the global North and South, little is

² This finding is echoed by other studies characterising trade between low income countries and China as 'asymmetric', increasing inequality and prompting the 'lock-in' of suppliers into upstream sectors with low value-added (Gallagher, 2012; Kaplinsky, 2013; Gonzalez-Vicente, 2017).

known as to whether Southern destinations themselves contain important variations, reflecting different governance structures in their value chains. Moreover, as we shall observe in the next section, private governance is critically informed by trust dynamics, the influence of which is also expected to vary across end-markets.

2.3. Trust, governance and end-markets

Certain strands of GVC and related GPN literature acknowledge the importance of *trust* in shaping private governance (Sako, 1998; Hess, 2004; Murphy, 2006, 2012). In the context of GVCs, trust has been defined as the 'expectations held by an agent that its trading partner will behave in a mutually acceptable manner and not exploit each other's vulnerabilities' (Sako, 1998, 91). We distinguish two approaches regarding how trust is built in GVCs.

First, trust can emerge as the result of inter-firm cooperation over time (Axelrod, 1984). In a GVCs context, this implies that trust is *process-based* and rests on the experience of cooperative interaction between buyers and suppliers which is strengthened through repeat transactions (Humphrey and Schmitz, 1998; Kaplinsky and Morris, 2002). In an early publication on trust and business performance in GVCs, Sako (1998, 89) conceptualises 'trust as a governance structure' which exists in varying degrees across value chains spanning sporadic market-based interactions and long-term hierarchical networks. She argues that while standards and formal regulations can help to prevent opportunistic behaviour, trust can 'enhance the effectiveness of transactions', favour information exchange and ultimately facilitate learning (Sako, 1998, 111).

Sako (1998) defines three categories of trust: (i) *contractual* trust—the understanding that suppliers will fulfil their contractual obligations; (ii) *competence* trust—the belief that a supplier has the required competence to provide products and services at high professional standards over time and (iii) *goodwill* trust—the shared understanding that the other party (whether that be the buyer or supplier) will always operate on a basis of mutual benefit and refrain from taking unfair advantage. Importantly, while contractual trust rests on a basic understanding about honesty underpinning formal contracts; competence and goodwill trust call for a mutual agreement on product standards and commitment to a shared principle of fairness. Drawing on a study of first-tier automotive suppliers, Sako (1998) concludes that lead firms and suppliers gradually move from contractual to goodwill trust as their interaction unfolds. Normally, this would be a desirable outcome, as 'it offers an extra edge over formal governance structures (i.e. contracts)' (Sako, 1998, 113), which incentivises learning and knowledge sharing.

Drawing on Sako's definition of trust, Fessehaie and Morris (2013) find that European and American mining companies sourcing from Zambia were more likely than their Southern competitors to develop 'trust-based relationships' with suppliers, leading to the formation of competence and goodwill trust. Conversely, South–South networks led by Chinese and Indian firms did not move beyond contractual trust (Fessehaie and Morris, 2013, 548). As a result, while access to Asian markets had comparatively lower barriers (due to lower product specifications), 'most [local] manufacturers could not use the Chinese supply chain as a sustainable basis for growth because the supply link was price driven and governed by arm's length market relationships' (Fessehaie and Morris, 2013, 552). In South–South networks, therefore, 'very few [suppliers] found opportunities for growth and managed to develop trust-based relationships' (Ibid.). The second approach views trust as a by-product of the parties' *embeddedness* within a common normative, cultural and social context (Granovetter, 1985). The concept of embeddedness implicitly accounts for the spatial and geographical dimension of territories in which firms operate, including official legislation, informal social norms and the 'specificities of place' that shape actors' relationships (Hess, 2004). Numerous GVC studies have shown how *societal* embeddedness (the 'genetic code' of both firm and non-firm actors, shaped by the social and cultural contexts from which they originate) and *territorial* embeddedness (the process of firms 'anchoring' in different places and institutional frameworks, from national to local levels) critically impact the architecture of GVCs, including decisions on where and whom to source and/or buy from (Coe et al., 2008; Alford, 2016; Morris et al., 2016). More broadly, the economic geography literature also argues that physical proximity and a shared cultural background facilitate business interactions, reducing the risk of misunderstanding and opportunism (Gertler, 2003; Nilsson, 2019).

The link between end-markets and an interpretation of trust based upon embeddedness has been highlighted in empirical GVC- and GPN-related studies. For instance, Murphy and Schindler's (2011) analysis of the wood industry in Bolivia shows how, in domestic and regional value chains, personal ties are critical in enabling trust and solving uncertainty about product specifications. In their account of India's pharmaceutical sector, Horner and Murphy (2018) further compare trust across different end-markets. On the one hand, North–South networks are characterised by process-based trust, in that compliance with demanding product standards over time helps suppliers develop a 'positive reputation' based on 'trustworthiness' (Horner and Murphy, 2018, 339). On the other hand, in South–South value chains, trust is more likely to depend on 'interpersonal relationships' that hinge on cultural (rather than commercial) aspects (Horner and Murphy, 2018, 345).

Importantly, by shaping trust between buyers and suppliers, embeddedness can inform the private governance of value chains. With a focus on North-South apparel value chains linking US retailers to suppliers in South East Asia, Perri and Buchan (2019) argue that a lack of societal and territorial embeddedness limits the formation of trust bonds, encouraging international buyers to delegate the governance of sourcing to third-party intermediaries. Intermediaries, in turn, rely on personal networks with suppliers that are 'founded on ethnic identification' and 'informal assurance mechanisms' rather than formal contracts (Perri and Buchan, 2019, 12). Similarly, Hsing (1999) highlights the critical role of intermediary trading companies in leveraging social relationships to coordinate highly decentralised international business networks. The author demonstrates the key role of intermediary traders in transforming networks, helping small-scale Taiwanese shoe companies achieve collective scale and scope in the 1980s. While we know that shorter lead times, increasingly complex standards and tighter traceability regulations have led major apparel brands in the North to bypass intermediaries (Gereffi and Frederick, 2011), studies have also shown that intermediaries are often critical to resolve mistrust linked to the specificities of an actor's territorial and societal embeddedness (Weller, 2006; Alexander, 2020). Nevertheless, whether and how this mechanism plays out across GVCs with different end-markets remains unclear.

Overall, the literature on trust and GVCs establishes a link between contractual requirements, suppliers' competence, private governance and trust formation. The first is nothing new: as we observed in Section 2.1, more demanding product standards and lower supplier competences are a major determinant of private governance in GVCs (Gereffi et al., 2005). What is critical, however, is that in certain contexts, private governance can help build trust and consolidate the interaction between buyers and suppliers—this is what we referred to as *process-based* trust (Humphrey and Schmitz, 1998; Sako, 1998). Comparatively higher product and process specifications characterising North–South value chains are expected to engender this dynamic (Fessehaie and Morris, 2013; Horner and Murphy, 2018). Yet, while evidence remains scant, aspects of societal and territorial embeddedness have been shown to constitute an important source of trust formation, which is likely to vary by end-market (Horner and Murphy, 2018) and further shape private gov-ernance (Perri and Buchan, 2019).

Walking the thin line that cuts across firms' commercial strategies and their embeddedness in localised contexts is critical to understand private governance across GVCs serving different end-markets. In the sections that follow, we first try to establish whether private governance differs across different end-markets. Drawing on these results, we then explain such variation in relation to aspects of product specifications and trust.

3. Methodology: Kenya's leather industry

This study relies on a sequential two-stage approach combining quantitative and qualitative methods of data inquiry (Schoonenboom and Johnson, 2017). A quantitative approach is first used to conceptualise and establish differences in private governance across value chains with different end-markets. Following that, we utilize qualitative interviews as a means to dig deeper into specific quantitative results and explore the combined role of product specifications and trust in explaining differences in private governance. A twostage approach is further required given the paucity of customs data which do not provide any information relative to product and process standards or trust. Such an approach has been considered 'vital' to scale up the explanatory power of GVC and GPN research largely dominated by qualitative case studies (Coe, 2012, 395).

Kenya's leather industry has been selected as a case study for numerous reasons. First, with over 80% of the country's leather output exported in semi-processed forms, the industry is deeply entrenched within regionally and globally organised value chains. Second, over the 2006–2015 period, 42% and 58% of Kenya's leather exports were channelled to the global North and South, respectively, making it an ideal candidate for comparative study across different end-markets. Furthermore, the heterogeneous nature of end-markets in the global South, including China, India and the COMESA free trade area, further allows for comparison across different Southern end-markets. The critical role of the leather sector in the development and industrialisation process of Kenya and the East African region has also been highlighted in numerous publications (Mwinyihija, 2014; World Bank, 2015; Krishnan et al., 2019).

3.1. Quantitative methods

The first stage of analysis draws on transaction-level customs export data as recorded by the Kenya Revenue Authority (KRA). This data have been used in GVC studies as it allows more granularity than aggregated trade data in capturing the heterogeneity of value chain linkages within countries and sectors (Dallas, 2015). The dataset reports every export transaction that occurred over a 10-year period from January 2006 to December 2015 in the leather industry, between Kenya and the rest of the world. A total of approximately 25,500 transactions were involved. For each transaction, the following information is recorded: (i) exporting firm; (ii) country of destination; (iii) importing firm; (iv) transaction's date; (v) type of product identified by the six-digit Harmonised System (HS); (vi)

real value of the product free-on-board and (vii) quantity of product in units or Kg (depending on specific product).

3.1.1. Variables

As observed in Section 2.1, the need to organise production while reducing transaction costs incentivises buyers to establish increasingly more *direct* and *stable* interactions with suppliers (Gereffi, 1999; Gibbon, 2001; Gereffi et al., 2005). Due to the nature of our dataset, complex qualitative taxonomies such as the one developed by Gereffi et al. (2005) and Ponte and Sturgeon (2014) cannot be feasibly operationalised. Nevertheless, focusing on the concepts of 'repeat transactions' over time (Gereffi et al., 2005, 81) and 'trader-driven value chains' (Gibbon, 2001; Tessmann, 2018), we construct two indicators for private governance that constitute our dependent variables:

3.1.1.1. Stability

To account for the stability of buyer–supplier interactions over time, we calculate the average duration of each dyad involving the same importer and exporter. To achieve this, we generate a variable indicating the number of consecutive years in which a dyad appears. Stability is therefore dyad-specific. To test the robustness of this indicator, we further calculate the number of months (not necessarily consecutives) in which the same dyad appears. This step should ensure that buyer–supplier interactions taking place throughout multiple months in the same year are not likened to sporadic interactions occurring once per year—a phenomenon that could potentially bias the outcome in the original variable.

3.1.1.2. Direct interactions A 'direct' dummy has been generated to take the value of 1 whenever the transaction between the supplying Kenyan firm and the foreign buyer is not mediated by a trader or middlemen. Conversely, the variable takes the value 0 if the interaction involves a third-party intermediary. This classification is enabled by the structure of the dataset in which importers and exporters are coded differently depending on the nature of their specific role as manufacturers, traders or retailers. In this respect, interactions where either suppliers or buyers (or both) are registered as traders have been coded as *indirect*.

The independent variable is the end-market. This is a categorical variable that identifies the four major destinations of export transactions: Europe (referring to the European Single Market), China, India and the COMESA Free Trade Area.

A number of factors are expected to influence the governance of value chains across different end-markets:

3.1.1.3. Product type and function Product fixed effects are used to control for productspecific characteristics that may bias the results for the end-market and product quality variables. Products are identified based on six-digit HS. Along with product type, we control for product functions. This is because South–South value chains have been associated with trade in functions entailing lower shares of value-added, which is expected to impact on governance structures (Kaplinsky et al., 2011). The leather value chain comprises four functions: (i) the provision of *raw skins and hides*; (ii) the processing of raw material into tanned leather (known as *wet-blue*); (iii) further processing into crust and finished leather and (iv) the *manufacturing* of leather products (Mwinyihija, 2014). Product functions are operationalised using an incremental discrete variable ranging from 1 to 4.

3.1.1.4. Product quality Higher quality products have been associated with more direct and stable interactions between foreign buyers and suppliers (Navas-Alemán, 2011; Alcacer and Oxley, 2014). We measure product quality using log unit values calculated by dividing the exported real value by the quantity. Higher unit values correspond to higher quality products (Hallak, 2006; Van Assche and Van Biesebroeck, 2018; Pasquali, 2021).

3.1.1.5. Firm size Previous research argues that larger suppliers are better equipped to sustain long-term interactions with international buyers and export higher quality products (Graner and Isaksson, 2009). Particularly in North–South GVCs, mounting competition and risk encourages global buyers to concentrate sourcing from a small number of large suppliers (Gereffi, 2014). To estimate the size of suppliers, this study adopts an indicator corresponding to the average exported value of the firms during their years of operation (Dallas, 2015).

A number of unobserved dynamics are likely to influence buyer-supplier interactions. Unobserved firm characteristics, such as a firm's proximity to raw materials, resources and networks affect the capacity to access certain markets and implement more or less stable governance ties. Similarly, time-specific events may impact Kenya's leather market and suppliers' capacity to compete in GVCs. We therefore adopt firm- and time-fixed effects to capture the influence of aggregate trends.

3.1.2. Empirical specification

$$D_{tji} = \beta_o + \beta_1 \text{endmarket}_{tji} + \gamma \rightarrow \vec{X}_{tji} + \delta_t + \delta_j + \delta_i + \varepsilon_{tji}.$$
 (1)

Equation (1) regresses the dummy variable for direct interactions D on the categorical variable *end-market* (with Europe as the reference category) and a vector X of control variables, including firm size, product quality and functions. δ_t , δ_j and δ_i indicate the fixed effects for year (*t*), product (*j*) and firm (*i*), respectively. In Equation (1), the unit of observation is the transaction. The equation is estimated as a linear probability model (LPM) using a simple linear regression. A logistic regression is used to test the robustness of the outcome.

$$L_{tji} = \beta_{o} + \beta_{1} \overrightarrow{\text{endmarket}}_{tji} + \gamma \rightarrow \vec{X}_{tji} + \delta_{t} + \delta_{j} + \delta_{i} + \varepsilon_{tji}.(2)$$

$$L_{tji} = \beta_{o} + \beta_{1} \overrightarrow{\text{endmarket}}_{tji} + \beta_{2} D_{tji} + \theta(D_{tji} \ast \overrightarrow{\text{endmarket}}_{tji}) + \gamma \rightarrow \vec{X}_{tji} + \delta_{t} + \delta_{j} + \delta_{i} + \varepsilon_{tji}.$$
(2c)

Equation (2) regresses the stability variable L on the same set of independent and control variables as Equation (1). Equation (2c) is tantamount to Equation (2), but it further adds an interaction term between end-market and the variable D for direct interactions. This generates predicted stability values that are separate across direct and indirect interactions for each of the four end-markets. In both Equations (2) and (2c), the unit of observation is the buyer–supplier dyad. The equations are estimated with the method of ordinary least squares (OLS).

$$P \text{quality}_{tji} = \beta_0 + \beta_1 \overrightarrow{\text{endmarket}}_{tji} + \gamma X_{tji} + \delta_t + \delta_j + \delta_i + \varepsilon_{tji}.$$
(3)

Equation (3) regresses product quality (*P*quality) on a vector of *end-market* dummies (with Europe as the reference category) and a vector of control variables *X*. As unit values are product-specific and the dataset includes several product types, product fixed effects δ_j are used along with year (δ_i) and firm (δ_i) fixed effects. The equation is estimated with the OLS method and the unit of observation is the transaction.

Since exports within the same firm are likely to be endogenous and therefore correlated with their respective error term, clustered standard errors (SEs) are used to assume independence across but correlation within firms in all equations.

3.2. Qualitative methods

The second stage of analysis explores the determinants of private governance (i.e. product specifications and trust) with a focus on the main linkage of the value chain—the tanning sector. This is where raw material is converted into semi-processed wet-blue and, possibly, crust and finished leather. As of 2016, there were 17 tanneries in Kenya whose size, product quality and engagement in export markets varies. Together, these actors accounted for over 90% of the sector's total exports in the 2006–2015 period.

The managers of all 17 tanneries were interviewed between June and November 2016. To provide a more comprehensive account of the domestic and COMESA market, the managers of five manufacturing plants sourcing their leather from local tanneries and two buyers from Europe and India were also interviewed. Both tanneries and manufacturing firms were identified from a comprehensive list of taxpayers provided by the KRA and further integrated with similar lists from the Kenya Leather Development Council (KLDC). While all tanneries operational in the country as of 2015 were interviewed, manufacturers were randomly sampled from a list of 61 formal leather businesses registered in Nairobi.

Interviews focus on firms' interaction with their respective buyers, including aspects of product quality and trust. Specifically, interviewees were asked to comment on the outcome of the quantitative analysis and discuss: (i) the nature of their interaction with buyers across end-markets (including aspects of stability and the use of intermediaries); (ii) the product and process standards demanded by buyers across the four main end-markets (including both formal certifications and informal quality requests) and (iii) the perceived levels of trust between themselves and their buyers and its evolution over time. Importantly, in assessing whether suppliers had moved beyond 'contractual trust' in their relationship with buyers, we also look at the modalities of payment used by the parties: while interactions underscored by higher levels of trust will normally involve easier terms of payment with longer payback periods, in low-trust interactions pre-payment and deposits are often required as guarantees (Kaplinsky and Morris, 2002).

Interviews were coded using a *grounded theory* approach, whereby respondents' answers were grouped along macro-themes and substantiated by direct quotations. Interview respondents have been anonymised using the acronyms Tan-# and Man-# to indicate Kenyan tanneries and manufacturing units, respectively.³

³ To guarantee participants' anonymity, we report only the coded reference and the date of interviews. The places where interviews occurred are omitted as this would effectively disclose the identity of interviewees.



Figure 1. Direct and indirect interactions by end-market. *Source*: Customs data (KRA).

4. Empirical results

4.1. Private governance and end-markets: descriptive statistics

Between January 2006 and December 2015, 686 exporters officially engaged in approximately 25,500 export transactions.⁴ A total of 90% of the total exported value and 65% of the transactions are accounted for by 15 companies, while approximately 100 companies account for 99% of the total exported value and 88% of the transactions. In value terms, over the 10 years covered by the data, Kenya exported a total value close to 800 million USD of leather and leather goods. A total of 85% of this has been exported to four end-markets, of which 41.5% was sent to Europe, 34.9% to China, 15.5% to India and 8.1% to the COMESA region.⁵

Concerning buyer–supplier interactions, 686 Kenyan exporters engaged in 3175 dyadic relationships with foreign buyers across the four main end-markets. The average stability of buyer–supplier interactions does not vary substantially across end-markets with an average of 1.4 years for Europe, 1.5 for the COMESA region and 1.6 for India and China. In terms of product functions, 85% of the total exports is accounted by semi-processed wetblue, which covers 90–95% of exports for Europe, China and India. Conversely, about 70% of the exports to COMESA are of crust leather and manufactured products.

Figure 1 displays the share of direct versus indirect interactions across the main endmarkets in terms of number of transactions and exported value. As expected, the relationship between Kenyan exporters and buyers in Europe tend to be more direct than with

⁴ This number decreases to 23,197 once transactions with non-core end-markets are excluded from the dataset.

^{5 95%} of the value exported to Europe goes to Italy and Switzerland, while for the COMESA region over 70% goes to Kenya's neighbours and members of the East African Community (Uganda, Tanzania, Rwanda and Burundi).

	Direct interactions	
	(1a)	(1b)
China	-0 349***	-0.304***
China	(0.064)	(0.047)
India	-0.045	-0.009
	(0.065)	(0.045)
COMESA	0.127	0.176*
	(0.086)	(0.091)
Firm size	0.165***	_
	(0.022)	
Product quality	0.056***	0.026*
	(0.017)	(0.014)
Function (wet-blue)	0.252***	0.009
	(0.103)	(0.036)
Function (finished leather)	0.411***	0.279
	(0.188)	(0.180)
Function (manufacturing)	0.692***	-0.107
	(0.234)	(0.203)
Fixed effects	Year, product	Year, product, firm
Observations	23,197 (transactions)	23,197 (transactions)
<i>R</i> -squared	0.59	0.66

 Table 1
 Results for Equation (1), direct interactions (reference category: Europe)

Notes: The unit of analysis is the single transaction. SEs clustered by firm are reported in parenthesis. *P*-values (***, ** and * indicate significance at 1%, 5% and 10% levels). The reference category for end-markets is Europe. The reference category for functions is raw material. Results are weighted by the exported value of each transaction.

buyers in the three Southern end-markets. Nevertheless, the gap is larger with China, suggesting buyers in this market behave differently from their counterparts in other developing countries. The heterogeneity of the South as a general category is further confirmed by the India and COMESA end-markets whose share of direct interactions, respectively, at 66% and 61% in terms value (and 47% and 36% in terms of transactions), is considerably larger than China. The mean and standard deviation of the dependent variables by endmarket are reported in the Appendix (Table 1A).

4.2. Private governance and end-markets: quantitative results

Table 1 presents the results of Equation (1) regressing the variable for direct interactions on end-markets. Controlling for product type, function, quality and firm size in regression (1a), China is 35% less likely to display direct interactions than Europe; the result is significant at the 1% level. In addition, regression (1a) suggests that transactions involving larger suppliers and higher quality products are more likely to be governed via direct linkages. Expectedly, as we progressively move into higher value-added functions, these are increasingly more likely to present direct interactions. All control variables are significant at the 1% level. The introduction of firm-fixed effects in regression (1b) corroborates the outcome of regression (1a), with Chinese buyers 30% less likely than European buyers to engage in direct interactions with Kenyan suppliers. Here, the COMESA region is 18%

	Stability		
	(2a)	(2b)	(2c)
China	-0.054	0.062	0.228
	(0.081)	(0.123)	(0.141)
India	0.059	0.121	0.207
	(0.091)	(0.127)	(0.177)
COMESA	0.151***	0.175*	0.118
	(0.055)	(0.089)	(0.089)
Direct * Europe	_	_	0.246**
1			(0.120)
Direct * China	_	_	-0.222^{\dagger}
			(0.190)
Direct * India	_	_	$-0.118^{\dagger\dagger}$
			(0.180)
Direct * COMESA	_	_	0.359***
			(0.135)
Firm size	0.099***	_	-
	(0.009)		
Product quality	0.025**	0.002	0.001
	(0.012)	(0.015)	(0.016)
Function	-0.114	-0.259	-0.249
(wet-blue)	(0.250)	(0.191)	(0.191)
Function	0.298	0.271	0.270
(finished leather)	(0.250)	(0.360)	(0.375)
Function	0.974	-0.245	-0.243
(manufacturing)	(0.274)	(0.398)	(0.407)
Fixed effects	Year, product	Year, product, firm	Year, product, firm
Observations	3175 (dyads)	3175 (dyads)	3175 (dyads)
R-squared	0.08	0.23	0.24

 Table 2
 Results for Equation (2), stability (reference category: Europe)

Notes: The unit of analysis is the buyer–supplier dyad. SEs clustered by firm are reported in parenthesis. *P*-values (***, ** and * indicate overall significance at 1%, 5% and 10% levels, respectively; in (2d) †††, †† and † indicate significance with respect to Direct * Europe at 1%, 5% and 10% levels, respectively). The reference category for end-markets is Europe. The reference category for functions is raw material.

more likely to display direct interactions than Europe; this result is nevertheless only slightly significant at the 10% level. The lack of significance of the function variables in (1b) is likely due to firms' specialisation dynamics (i.e. few firms export across multiple functions).

Table 2 presents the results of Equation (2) regressing the stability of value chain interactions on end-markets. Controlling for product type, function, quality and firm size in regression (2a), the COMESA end-market is associated with interactions that are more stable compared with Europe-led value chains; this is significant at the 1% level. Conversely, interactions in value chains across the India and China end-markets are not significantly different than for Europe. Regression (2a) further points to firm size and product quality as significant and positive predictors of stability. Introducing firm-fixed effects in regression (2b) confirms the outcome of (2a), with the coefficient for the COMESA market remaining positive and significant at the 10% level. The coefficient for

	Product quality	
	(3a)	(3b)
China	-0.068*	-0.059*
	(0.037)	(0.033)
India	-0.289***	-0.311***
	(0.054)	(0.042)
COMESA	-0.555***	-0.303**
	(0.191)	(0.151)
Firm size	0.105***	_
	(0.018)	
Fixed effects	Year, product	Year, product, firm
Observations	23,197 (transactions)	23,197 (transactions)
R-squared	0.53	0.73

 Table 3
 Results for morel (3), product quality (reference category: Europe)

Notes: The unit of analysis is the single transaction. SEs clustered by firm are reported in parenthesis. *P*-values (***, ** and * indicate significance at 1%, 5% and 10% levels). The reference category for end-markets is Europe.

product quality becomes insignificant, suggesting firms may specialise at different quality segments.

Through the interaction terms in regression (2c) we separately observe the correlation between end-markets and stability across direct and indirect interactions. The coefficients of the non-interacted end-market variables suggest that the stability of indirect interactions does not significantly vary relative to Europe. More interesting are the results comparing the stability of direct interactions as indicated by the interacted terms. On the one hand, Europe presents a positive and significant coefficient at the 5% level and COMESA at the 1% level, indicating that direct interactions with these two end-markets increase average stability. On the other hand, interactions with China and India do not have any statistically significant effect on stability. Furthermore, as indicated by the † superscript, direct interactions between Kenyan suppliers and buyers in China and India are significantly less stable than direct interactions with European and COMESA buyers.

Table 3 presents the results of Equation (3) regressing unit value as a proxy for product quality on end-markets. Results are consistent in the equation with and without firm-fixed effects, suggesting that higher quality products are significantly more likely to be exported to Europe than to any other Southern end-markets. From (3b), it emerges that products going to China, India and the COMESA region are, respectively, 6%, 31% and 30% cheaper than products exported to Europe. Results are significant at the 10% level for China, 5% for COMESA and 1% for India. Importantly, product quality in India and COMESA-led value chains is also significantly below that of China.

For Equations (1) and (3), robustness tests were carried out using sub-samples with firms exporting a minimum 100,000 USD (respectively, Appendix Tables 3A and 5A). With minor differences in the levels of significance, results were confirmed for all independent variables with the exception of firm size whose significance expectedly decreased as smaller firms were excluded. Furthermore, the use of a logit model for Equation (1) produces consistent results (Appendix Table 2A). For Equation (2), the same regressions

were carried out replacing the dependent variable with the average number of months for each buyer–supplier dyad. Again, results remain consistent (Appendix Table 4A).

Overall, the analysis of customs data points to three major results. First, China is the only end-market that is significantly more likely to be characterised by indirect interactions than Europe. Second, variation in the stability of buyer–supplier interactions across end-markets is significant only for direct interactions. In particular, Europe and the COMESA end-markets are associated with more stable interactions both overall and compared with India and China. Third, Europe led-value chains present significantly higher product quality than all other end-markets, with India and COMESA attracting the lowest quality range.

4.3. Exploring the determinants of private governance: qualitative results

The results in Section 5 spark an immediate question: Since COMESA includes Kenya's low-income neighbours purchasing relatively low-quality products, what triggers the formation of more direct and stable interaction in these value chains similar to those underpinning the European end-market? Moreover, why is India characterised by direct interactions in a way that is not significantly different from Europe, despite being a price-driven market associated with low-quality products and less stable interactions? Drawing on interviews with Kenyan tanners, the following discussion sheds further light on these questions by focusing on two determinants of private governance: product specifications and trust.

4.3.1. Product specifications

Towards the end of Section 4.2, we observed how, controlling for product type and function, quality is significantly higher in Europe-led value chains, followed by China, COMESA and India (Table 3). Importantly, quality in the final two end-markets is also significantly below that of China.

As expected, direct and stable interactions with European buyers are linked to more demanding product specifications. This requires buyers to undergo long-term relations with a restricted number of large suppliers, whereby information is shared directly and on a regular basis. Specifications are included in both mandatory legal standards such as the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), and stringent quality requisites including the Tannery Run (TR) 20-40-40. Compliance with REACH is a legal requirement to export wet-blue and tanned leather to the European Union (EU). This public standard was issued by the EU in 2007 to evaluate the safe application of chemical substances used by firms in the EU. Importantly, REACH places the burden of proof on European companies, which implies that European processing plants importing Kenyan inputs need to make sure that imported goods do not contain any forbidden substance.⁶ As a result, European buyers often indicate or directly supply Kenyan tanneries with the chemicals required for processing. As reported by Tan-4, 'Europeans are strict on traceability. Several times we were asked to change the "recipe" [chemical

⁶ Chemicals used in the tanning process that are forbidden under REACH are listed in REACH Annex 1—https:// echa.europa.eu/regulations/reach/understanding-reach. REACH is enforced by the European Chemicals Agency.

mixing] and they assisted us in the use specific chemicals. No such processing request comes from Chinese and Indian clients...' (Tan-4, August 2016).

In addition, relatively higher labour costs in Europe make it unprofitable to source lowend material. As a buyer operating across multiple markets stressed, 'a good tanner can turn bad wet-blue into gold, but the amount of work required is high and costly. Low-end material can be used for gloves and small items whose profits are small and do not justify the processing costs' (E.S., July 2016). The quality of wet-blue hides is internationally classified from grade I (highest) to grade VII (lowest, reject). Grades are assigned based on the number of visible defects on the hide (e.g. holes, brand marks, wearables, putrefaction signs and processing defects) (UNIDO, 2007, 14–16).⁷ Usually, European buyers provide Kenyan suppliers with strict specifications on quality, using the TR 20-40-40. Such requisite indicates a production-lot of wet-blue where 20% is grade I, 40% grade II and another 40% grade III: 'European clients get involved directly to ensure quality [...] They are picky and buy rigorously only TR 20-40-40. The hide should not only be of high grade and without holes, but the size is crucial... They want them all the same size!' (Tan-8, June 2016).

Buyers from China are less rigorous when it comes to quality. Here, in line with previous findings (Kaplinsky et al., 2011), lower labour costs and less complex regulations allow for sourced material to be processed at more competitive rates. China is the number 1 leather manufacturer and exporter in the world, covering all market-tiers from luxury handbags to low quality working gloves. Since all material can easily find a plant willing to process it, there is no need for the buyer to deal directly with the tanner. As it emerges from six of our interviews with suppliers serving the Chinese end-market, the costs associated with setting up and managing a direct and stable relationship are not justified in these circumstances. For instance, a local tanner with extensive experience exporting across China and Europe explains, 'the Chinese market is less difficult when it comes to the quality and weight-range. They buy TR 20-40-40 as well as five and six grades. They always find a market for it...' (Tan-1, June 2016). Another local tanner similarly emphasised: 'Poor quality wet-blue can be corrected into finished leather and used for small accessories such as watch straps, gloves, etc. This can be done in a profitable way in the Chinese market, but it is unthinkable in Europe.' (Tan-4, August 2016).

India and the COMESA end-markets represent the lowest tier in terms of product quality. Indian buyers are integrated manufacturers selling in the local market where competition is extremely high and profits low⁸: 'many Indian importers dealing with Kenya are integrated glove and boots manufacturers with low profit margins... They want low grades and re-negotiate prices constantly' (Tan-11, July 2016). As argued by another Kenyan tanner: 'these [Indian] buyers are aware that Kenyan tanners often face no choice on low-grade material and exploit this aspect to negotiate on price and quantities' (Tan-8, June 2016). Despite comprising lower quality demands, India is associated with direct (though not stable) interactions. Inferior standards and low labour costs may explain instability in this value chain, but they do not shed light on why direct interactions are pursued in the first place: 'You'll be surprised, but India and Pakistan work differently...

⁷ Contrary to REACH, grading structures (such as the TR 20-40-40) are not a mandatory requirement to access any end-market. Rather, they represent a private standard normally used by buyers to evaluate product quality.

⁸ A scrutiny of buyers from the dataset confirms this information, suggesting that about 85% of direct interactions with this end-market are channelled through integrated manufacturing plants.

They buy the lowest quality, yet they buy directly and inspect the cargos more than the others!' (Tan-5, August 2016).

As with India, the COMESA regional market is also largely characterised by lower-end quality products ranging from scrap leather used in informal shoe-manufacturing to finished leather for handbags and travel-ware. Importantly, contrary to Europe-led value chains, no formal standard is required in these markets, while quality is often assessed informally through visual inspection. Interviews provide mixed evidence regarding the role of product quality in triggering more direct and stable interactions. As argued by a large handbag manufacturer operating both domestically and in neighbouring Uganda: 'I buy directly and exclusively from Tan-1. I can work on patterns, colours and quality. I go there and get to know them [suppliers] and we work together to achieve what I want' (Man-2, October 2016). Yet, stable and direct interactions emerge also among lower-end, informal manufacturers who prefer to buy directly from tanneries: 'When I have a large order, I go to the tannery. Quality is not the main issue, but if I go there I know I can negotiate a better price and have more choice...' (Man-1, October 2016).

4.3.2. Trust

Overall, Kenyan suppliers agree that business relations with European buyers are based on trust. Contractual trust is initially sought by buyers to grant traceability and compliance with the standards discussed in Section 4.3.1. The geographical distance and transactions costs associated with information exchange, supply of chemicals and capacity building to achieve and maintain levels of quality and consistency imply that buyers benefit from trusting suppliers. Over time, as the interaction unfolds, 'contractual trust' leads to 'competence trust' (Sako, 1998), to the extent that European buyers rely on their suppliers' competence to provide products adhering to the required standards. As an Italian buyer sourcing from Kenya explains: 'We prefer to stick to one large provider. This is because we need a reliable supply. I do not want to come here every 2 weeks because things do not work...' (M.M., August 2016) At the same time, tanners benefit from more stable markets: 'If you look at these clients in Europe, they have been there for generations. Somebody like LDB buys from January to December. They buy regularly...' (Tan-1, June 2016). Another tanner exporting to Europe explained: 'They learnt to trust us. Now, they know we can deliver what they want and when they want it [...] They don't need to check on us...' (Tan-3, July 2016). With most European buyers, therefore, trust is process-based and evolves as a consequence of stable and direct interactions to reduce transaction costs and guarantee consistent and traceable supply of quality products. This is reflected in the payment method adopted: five out of six tanneries exporting to Europe reported using cash-against-documents (CAD) on arrival. This method implies that goods are shipped before payment is obtained. Once the payment is finalised, Kenyan exporters share documentation required by the importer to clear the shipment at the port of arrival (Eker, 2018). This practice is significantly cheaper than using letters of credit and is normally reserved for long-term and trusted clients. This is because suppliers run the risk of losing the cargo if the buyer decides to protest the shipment (which is already docked at the port of entry).

Contrary to Europe-, China-led value chains reveal a lower degree of trust. As observed in Section 4.3.1, the size of the Chinese market and its capacity to absorb different quality standards favour the use of intermediaries and reduce scope for stable relationships between buyers and suppliers. Tan-16 explains the perception of lower trust in the relationship with Chinese traders as a consequence of market instability where traders change often, and orders are more sporadic: 'Many traders we deal with are generic traders. They import phones from China and re-invest the currency to buy wet-blue. It is not their line of business. They are no experts and take what is available' (Tan-16, September 2016). Chinese traders often show up at the tannery's gate, with a tendency to pay cash-in-hand or via bank transfer. Receipts are issued, yet contracts are rarely signed. In such context, a trusting relationship is not initiated, even at the 'contractual' level.

Trust is low at both ends of China-led value chains, with buyers not trusting suppliers: 'the Chinese lack trust towards the system... They change their suppliers regularly and insist to inspect the material before shipment' (Tan-7, August 2016). While European buyers often enjoy lines of credit with suppliers (contract-based), this is not the case with China. As Tan-13 reports: 'You cannot give credit to somebody you barely know who comes every now and then...' (Tan-13, July 2016). As a note, however, while our analysis suggests that in China-led value chains suppliers do not establish a trusting interaction with traders, it is not unlikely that the latter maintain some degree of trust with buyers (Hsing, 1999; Perri and Buchan, 2019). More work is therefore required to unpack the different role of traders across end-markets in relation not just to suppliers, as we do in this article, but also to buyers.

Nine out of 17 Kenyan tanners are of Indian descent. A shared cultural background underpinned by common origins and language act as an assurance mechanism to initiate business, as reflected in the following statement: 'They [Indian firms] could buy wet-blue from other markets, but they come to Kenya because we have connections. We speak the same language and have the same roots...' (Tan-2, June 2016). A shared cultural and linguistic background underpins a certain degree of societal embeddedness, which is nevertheless *not* accompanied by territorial proximity and access to a common institutional framework (i.e. territorial embeddedness).

Indeed, while societal embeddedness facilitates direct exchanges and an initial form of contractual trust—as parties agree on contractual terms of exchange—competence trust is rarely built. Nine tanners selling directly to Indian buyers reported conflictual interactions: 'We know our clients in India, they come here and we go there, but they have very low margins and they use all kind of strategies to re-negotiate prices. Often when the cargo is half-way there! These episodes kill trust.' (Tan-12, June 2016). An important obstacle mentioned by suppliers is the lack of institutional guarantees on which to build a trusting relationship: 'If something goes wrong, I have no way to act upon it. Kenyan tanners got burned many times in deals with Indians. They will tell me to report it to the authorities, but I can't do it in India...' (Tan-6, September 2016). Similarly, Tan-14's statement points to the centrality of contractual trust: 'We try to put everything down on paper [contract], every single detail, to make sure that there is no breach...' (Tan-14, August 2016). Low trust translates into more detailed contracts and less flexible methods of payment. Of 12 tanneries that reported exporting to India, all but one operated through letters of credit to reduce risk associated with unpaid cargos. Letters of credit are traditionally considered as a more secure (yet more expensive) payment method than CAD, in that a bank directly guarantees the payment by covering the full amount if the buyer is unable or unwilling to pay (Eker, 2018).

Within COMESA, clients are largely manufacturers placing direct orders and collecting from tanneries' doors. Societal and territorial embeddedness coexist within shared social norms and institutions, including access to the same informal and formal enforcement mechanisms. Together, societal and territorial embeddedness provide the basis for *competence* and *goodwill* trust to emerge: 'They live here, we know them very well... If they don't pay me, I know who to look for! [...] I could go to the police and sue them, but this is usually never required' (Tan-2, June 2016). Similarly, as explained by a Tanzanian manufacturer importing leather from Nairobi on *matatus* (minivans): 'I never have problems... I don't question loyalty. He is my brother [referring to the Kenyan tanner, using the Swahili term *kaka*].' Two large handbag manufacturers (Man-3 and -4) operating across Kenya, Tanzania and Uganda, pointed to the personal linkage pre-existing their commercial interaction with the supplier: 'We know each other... We even sit in the same committee [KLDC]. It is not just a senior relationship... Our production manager goes there and physically meets with their production person... He is always less than a phone call away' (Man-3, November 2016). In several cases, a line of credit can be granted by the tanner to formal businesses. Nevertheless, especially in the informal market, cash on delivery is the rule as contracting with an unregistered business is not an option (KLDC, September 2016).

Our evidence suggests that regional and domestic end-markets are more likely to develop direct and stable interactions on the grounds of the parties' societal and territorial embeddedness. While quality specifications remain lower than Europe, trust in these markets is associated with personal ties, shared social norms, access to enforcement mechanisms and territorial proximity which facilitates direct and stable interaction. As we observed, this is not the case with other Southern end-markets, including China and India.

5. Discussion and conclusion

Our analysis of Kenya's participation in leather value chains shows that private governance varies across different end-markets, and that this variation depends on aspects of product specifications and trust (Figure 2). First, analysis of transaction-level customs data in Section 4.2 indicates that private governance in Europe-led value chains is characterised by more direct and stable interactions than those led by Chinese buyers. India-led value chains display equally direct, yet more unstable interactions than Europe-led value chains. Finally, the COMESA end-market reveals direct and stable interactions comparable with Europe. The results for India and COMESA are particularly unexpected vis-à-vis GVC studies linking less demanding product standards (typical of these end-markets) with market-based coordination mechanisms (Horner and Murphy, 2018; Tessmann, 2018).

Evidence from supplier interviews helps to explain results from the quantitative analysis, highlighting the multiple and varied ways in which product specifications and trust inform, and are informed by, private governance across different end-markets. While in North–South value chains (exemplified by Europe–Kenya networks in our case study), competence trust develops as a consequence of direct and stable interactions to monitor complex product and process standards, the opposite does not hold true in South–South value chains where such standards are significantly lower. Certainly, there are examples of less complex product specifications resulting in market-based value chains with low degrees of trust. This is reflected in our analysis of China—a finding which corroborates previous observations that South–South value chains are less likely to favour knowledge sharing, potentially limiting the upgrading prospects of suppliers participating in them (Kaplinsky et al., 2011).

However, we have also shown that actors' societal and territorial embeddedness can alter this dynamic (Hess, 2004), providing a platform for consolidated forms of private



Figure 2. Private governance by end-market, summary. *Source*: Authors' compilation.

governance where formal contracts are replaced by shared social norms and their enforcement facilitated by actors' territorial proximity. This is particularly reflected in the case of regional value chains within COMESA, where societal and territorial embeddedness have favoured the emergence of direct and stable networks characterised by competence and goodwill trust, despite comparatively low product specifications. In India-led value chains, societal embeddedness in a shared cultural and linguistic background has also favoured contractual trust and direct interactions, yet the lack of territorial embeddedness within a common institutional framework has constrained competence trust. More research is required to shed light on the potential influence of embeddedness within regional and global South–South networks on knowledge transfer and suppliers' upgrading prospects (Morris et al., 2016; Pasquali et al., 2020).

Building on these points, our research draws critical attention to the heterogeneity of value chains across the global North and South, as well as within the South. Contrary to generalising claims in existing literature that value chains serving Southern markets comprise arm's length and trader-driven governance (Navas-Alemán, 2011; Tessmann, 2018), our analysis paints a more nuanced picture. We observe substantive differences in private governance across the global South in China-, India- and COMESA-led value chains,

underpinned by variations in product quality and trust-based linkages, which change over time. We therefore dispute previous GVC studies that claim product standards are uniquely determinative of private governance, in ways that vary across Northern and Southern endmarkets (Bazan and Navas-Alemán, 2004; Horner and Murphy, 2018; Tessmann, 2018). Conversely, we call for greater emphasis on the combined role of product specifications and trust in GVC studies, to help facilitate a more conceptually robust understanding of how value chains are governed across diverse geographical contexts. Such an agenda, we argue, is all the more important against a backdrop where multiple value chains co-exist to serve different Southern and Northern end-markets.

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Supplementary material

Supplementary data for this paper are available at Journal of Economic Geography online.

References

- Alcacer, J., Oxley, J. (2014) Learning by supplying. Strategic Management Journal, 35: 204-223.
- Alexander, R. (2020) Emerging roles of lead buyer governance for sustainability across global production networks. *Journal of Business Ethics*, 162: 269–290.
- Alford, M. (2016) Trans-scalar embeddedness and governance deficits in global production networks: crisis in South African fruit. *Geoforum*, 75, 52–63.
- Alfrod, M., Phillips, N. (2018) The political economy of state governance in global production networks: change, crisis and contestation in the South African fruit sector. *Review of International Political Economy*, 25: 98–121.

Axelrod, R. (1984) The Evolution of Cooperation. New York: Basic Books.

- Van Assche, A., Van Biesebroeck, J. (2018) Functional upgrading in China's export processing sector. *China Economic Review*, 47: 245–262.
- Barrientos, S., Gereffi, G., Pickles, J. (2016) New dynamics of upgrading in global value chains: shifting terrain for suppliers and workers in the global south. *Environment and Planning A*, 48: 1214–1219.
- Bazan, L., Navas-Alemán, L. (2004) The underground revolution in the Sinos Valley: a comparison of upgrading in global and national value chains. In H. Schmitz (ed.) *Local Enterprises in the Global Economy: Issues of Governance and Upgrading*, pp. 110–139. Cheltenham: Edward Elgar.
- Brancati, E., Brancati, R., Maresca, A. (2017) Global value chains, innovation, and performance: firm-level evidence from the Great Recession. *Journal of Economic Geography*, 17: 1039–1073.

- Coe, N. M. (2012) Geographies of production II: a global production network A-Z. Progress in Human Geography, 36: 389-402.
- Coe, N. M., Dicken, P., Hess, M. (2008) Global production networks: realizing the potential. International Encyclopedia of Human Geography, 8: 556-562.
- Dallas, M. P. (2015) "Governed" trade: global value chains, firms, and the heterogeneity of trade in an era of fragmented production. *Review of International Political Economy*, 22: 875–909.
- Dannenberg, P., Nduru, G. M. (2013) Practices in international value chains: the case of the kenyan fruit and vegetable chain beyond the exclusion debate. *Tijdschrift Voor Economische en Sociale Geografie*, 104: 41–56.
- Dolan, C., Humphrey, J. (2004) Changing governance patterns in the trade in fresh vegetables between Africa and the United Kingdom. *Environment and Planning A: Economy and Space*, 36: 491–509.
- Eker, O. (2018) What are the differences between cash against documents and letters of credit?. *Letterofcredit.biz*, 20 May (https://www.letterofcredit.biz/index.php/2018/05/20/what-are-the-differ ences-between-cash-against-documents-and-letters-of-credit/).
- Fessehaie, J., Morris, M. (2013) Value chain dynamics of Chinese copper mining in Zambia: enclave or linkage development? *The European Journal of Development Research*, 25: 537–556.
- Gallagher, K. (2012) Latin America and China: trading short-term growth for (China's) long-run prosperity. In A., Najam and R., Thrasher (eds) *The Future of South–South Economic Relations*, pp. 180–199. London: Zed Books.
- Gereffi, G. (1994) The organisation of buyer-driven global commodity chains: how U.S. retailers shape overseas production networks. In G., Gereffi and M., Korzeniewicz (eds) *Commodity Chains and Global Capitalism*, pp. 95–122. Westport: Praeger.
- Gereffi, G. (1999) International trade and industrial upgrading in the apparel commodity chain. *Journal of International Economics*, 48: 37–70.
- Gereffi, G. (2014) Global value chains in a post-Washington consensus world. *Review of International Political Economy*, 21: 9–37.
- Gereffi, G., Frederick, S. (2011) The global apparel value chain, trade, and the crisis: challenges and opportunities for developing countries. In O., Cattaneo, G., Gereffi, and C., Staritz (eds) *Global Value Chains in a Postcrisis World. A Development Perspective*, pp. 157–208. Washington (DC): World Bank.
- Gereffi, G., Humphrey, J. and Sturgeon, T. (2005) The governance of global value chains. *Review of International Political Economy*, 12: 78–104.
- Gereffi, G., Lee, J. (2016) Economic and social upgrading in global value chains and industrial clusters: why governance matters. *Journal of Business Ethics*, 133: 25–38.
- Gertler, M. S. (2003) Tacit knowledge and the economic geography of context, or the undefinable tacitness of being (there). *Journal of Economic Geography*, 3: 75–99.
- Gibbon, P. (2001) Upgrading primary production: a global commodity chain approach. *World Development*, 29: 345–363.
- Glückler, J. (2005) Making embeddedness work: social practice institutions in foreign consulting markets. *Environment and Planning A: Economy and Space*, 37: 1727–1750.
- Gonzalez-Vicente, R. (2017) South–South relations under world market capitalism: the state and the elusive promise of national development in the China–Ecuador resource-development nexus. *Review of International Political Economy*, 24: 881–903.
- Graner, M., Isaksson, A. (2009) Firm efficiency and the destination of exports: evidence from Kenyan plant-level data. *The Developing Economies*, 47: 279–306.
- Granovetter, M. (1985) Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, 91(3): 481–510. 10.1086/228311.
- Gulati, R. (1995) Social structure and alliance formation patterns: a longitudinal analysis. *Administrative Science Quarterly*, 40: 619–652.
- Hallak, J. (2006) Product quality and the direction of trade. *Journal of International Economics*, 68: 238–265.
- Hess, M. (2004) "Spatial" relationships? Towards a reconceptualization of embeddedness. *Progress in Human Geography*, 28: 165–186.
- Horner, R., Murphy, J. (2018) South–North and South–South production networks: diverging socio-spatial practices of Indian pharmaceutical firms. *Global Networks*, 18: 326–351.

- Horner, R., Nadvi, K. (2018) Global value chains and the rise of the Global South: unpacking twenty-first century polycentric trade. *Global Networks*, 18: 207–237.
- Hsing, Y. T. (1999) Trading companies in Taiwan's fashion shoe networks. *Journal of International Economics*, 48: 101–120.
- Humphrey, J., Schmitz, H. (1998) Trust and inter-firm relations in developing and transition economies. *Journal of Development Studies*, 34: 32–61.
- Ivarsson, I., Alvstam, C. G. (2011) Upgrading in global value-chains: a case study of technologylearning among IKEA-suppliers in China and Southeast Asia. *Journal of Economic Geography*, 11: 731–752.
- Kaplinsky, R. (2013) What contribution can China make to inclusive growth in sub-Saharan Africa? Development and Change, 44: 1295–1316.
- Kaplinsky, R., Farooki, M. (2011) How China Disrupted Global Commodities: The Reshaping of the World's Resource Sector. London: Routledge.
- Kaplinsky, R., Morris, M. (2002) *A Handbook for Value Chain Research*. IDRC-International Development Research Center.
- Kaplinsky, R., Terheggen, A., Tijaja, J. (2011) China as a final market: the Gabon timber and Thai cassava value chains. *World Development*, 39: 1177–1190.
- Krishnan, A., Te Velde, D. W., Were, A. (2019) Integrating Kenya's Small Firms into Leather, Textiles and Garments Value Chains. Creating Jobs under Kenya's Big Four Agenda. Overseas Development Institute.
- Lee, J. (2019) Three worlds of global value chains: multiple governance and upgrading paths in the Korean animation industry. *International Journal of Cultural Policy*, 25: 684–700.
- Morris, M., Plank, L., Staritz, C. (2016) Regionalism, end markets and ownership matter: shifting dynamics in the apparel export industry in Sub Saharan Africa. *Environment and Planning A*, 48: 1244–1265.
- Murphy, J. T. (2006) Building trust in economic space. *Progress in Human Geography*, 30: 427–450.
- Murphy, J. T. (2012) Global production networks, relational proximity, and the sociospatial dynamics of market internationalization in Bolivia's wood products sector. *Annals of the Association of American Geographers*, 102: 208–233.
- Murphy, J. T., Schindler, S. (2011) Globalizing development in Bolivia? Alternative networks and value-capture challenges in the wood products industry. *Journal of Economic Geography*, 11: 61–85.
- Mwinyihija, M. (2014) A prognosis of the leather sector in Kenya; the upheavals and antidotes associated with value creation. *Management*, 4: 21–29.
- Nadvi, K. (2008) Global standards, global governance and the organization of global value chains. Journal of Economic Geography, 8: 323–343.
- Navas-Alemán, L. (2011) The impact of operating in multiple value chains for upgrading: the case of the Brazilian furniture and footwear industries. *World Development*, 39: 1386–1397.
- Nilsson, M. (2019) Proximity and the trust formation process. *European Planning Studies*, 27: 841–861.
- Ouma, S. (2010) Global standards, local realities: private Agrifood governance and the restructuring of the Kenyan Horticulture Industry. *Economic Geography*, 86: 197–222.
- Palpacuer, F., Gibbon, P., Thomsen, L. (2005) New challenges for developing country suppliers in global clothing chains: a comparative European perspective. *World Development*, 33: 409–430.
- Pasquali, G. (2021) When Value Chains Go South: Upgrading in the Kenyan Leather Sector. *Journal of World Business*, 56(2).
- Pasquali, G., Godfrey, S., Nadvi, K. (2020) Understanding regional value chains through the interaction of public and private governance: insights from Southern Africa's apparel sector. *Journal of International Business Policy* (forthcoming).
- Perri, A., Buchan, N. (2019) Trust in global value chains and the role of intermediaries. In M., Zhang (ed.) *Trust Building and Boundary Spanning in Cross-Border Management*. New York: Routledge.
- Ponte, S., Sturgeon, T. (2014) Explaining governance in global value chains: a modular theory-building effort. *Review of International Political Economy*, 21: 195–223.
- Ponte, S., Sturgeon, T. J., Dallas, M. P. (2019) Governance and power in global value chains. In S., Ponte, G., Gereffi, and G., Raj-Reichert (eds) *Handbook on Global Value Chains*, pp. 120–137. Cheltenham, UK: Edward Elgar Publishing.

- Raikes, P., Jensen, M. F., Ponte, S. (2000) 'Global commodity chain analysis and the French Filière approach: comparison and critique. *Economy and Society*, 29: 390–417.
- Sako, M. (1998) Does trust improve business performance? In C., Lane and R., Backman (eds) *Trust within and between Organizations: Conceptual Issues and Empirical Application*, pp. 88–117. Oxford (UK): Oxford University Press.
- Schoonenboom, J., Johnson, R. B. (2017) How to construct a mixed-methods research design. Kolner Zeitschrift f
 ür Soziologie und Sozialpsychologie, 69: 107–131.
- Staritz, C., Cattaneo, O., Gereffi, G. (2011) Editorial. International Journal of Technological Learning, *Innovation and Development*, 4: 1–12.
- Tessmann, J. (2018) Governance and upgrading in South–South value chains: evidence from the cashew industries in India and Ivory Coast. *Global Networks*, 18: 264–284.
- Thrasher, R., Najam, A. (2012) Introduction. In R., Thrasher and A., Najam (eds) The Future of South–South Economic Relations, pp. 1–10. London: Zed Books.
- UNCTAD. (2015) Global value chains and South–South trade. Economic Cooperation and Integration among Developing Countries. UNCTAD (Economic Cooperation and Integration among Developing Countries (ECIDC)).
- UNIDO. (2007) Classification of wet-blue hides by quality. UNIDO, 16th Session of the Leather and Leather Products Industry Panel.
- Weller, S. A. (2006) The embeddedness of global production networks: the impact of crisis in Fiji's garment export sector. *Environment and Planning A*, 38: 1249–1267.
- World Bank. (2015) Kenya Leather Industry: Diagnosis, Strategy and Action Plan. Washington DC: The World Bank.

Appendix

	Stability		Direct interactions	
	Mean (years)	SD (years)	Mean [value share]	SD
Europe	1.4	0.9	75% [89%]	0.4
China	1.6	1.1	21% [33%]	0.4
India	1.6	1.3	47% [66%]	0.5
COMESA	1.5	1.2	36% [61%]	0.5

Table 1A Mean and standard deviations for stability and direct interactions across end-markets

Note: The mean weighted by the transactions' value is reported in squared brackets.

	Direct interaction [logit]	
	(1a)	(1b)
China	-3.492***	-4.252***
	(0.862)	(1.140)
India	-0.564	-0.649
	(0.357)	(0.610)
COMESA	0.832	0.350
	(0.672)	(0.850)
Firm size	1.438***	_
	(0.358)	
Product quality	0.716***	0.333**
	(0.240)	(0.149)
Function	0.375	0.255
(wet-blue)	(0.359)	(0.507)
Function	4.246***	2.534***
(finished leather)	(0.726)	(0.448)
Function	6.622***	-2.267
(manufacturing)	(2.133)	(2.123)
Fixed effects	Year, product	Year, product, firm
Observations	22,925 (transactions)	15,624 (transactions)
R-squared (pseudo)	0.59 0.62	

 Table 2A
 Direct interactions (logit model)

Notes: SEs clustered by firm are reported in parenthesis. *P*-values (***, ** and * indicate significance at 1%, 5% and 10% levels). The reference category for end-markets is Europe. The reference category for functions is raw material. Results are weighted by the exported value.

	Direct interaction [LPM, value > 100,000 USD]	
	(1a)	(1b)
China	-0.341***	-0.303***
	(0.062)	(0.046)
India	-0.035	0.009
	(0.063)	(0.045)
COMESA	0.122	0.174*
	(0.090)	(0.094)
Firm size	0.174***	_
	(0.022)	
Product quality	0.056***	0.027*
	(0.018)	(0.015)
Function	0.192***	0.009
(wet-blue)	(0.087)	(0.036)
Function	0.427***	-0.030
(finished leather)	(0.187)	(0.149)
Function	0.872***	-0.047
(manufacturing)	(0.259)	(0.208)
Fixed effects	Year, product	Year, product, firm
Observations	18,929 (transactions)	18,929 (transactions)
R-squared	0.59	0.67

Table 3A Direct interactions (LPM for firms exporting over 100,000 USD)

Notes: SEs clustered by firm are reported in parenthesis. *P*-values (***, ** and * indicate significance at 1%, 5% and 10% levels). The reference category for end-markets is Europe. The reference category for functions is raw material. Results are weighted by the exported value.

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	Stability [months]		
	(2a)	(2b)	(2c)
China	0.561	1.427	2.476**
	(0.476)	(0.909)	(1.006)
India	0.215	0.994	2.330*
	(0.558)	(1.039)	(1.320)
COMESA	0.789***	0.739*	0.423
	(0.224)	(0.437)	(0.387)
Direct * Europe	_	_	1.707***
-			(0.583)
Direct * China	_	_	$-0.926^{\dagger\dagger}$
			(0.956)
Direct * India	_	_	-0.939 ^{††}
			(0.925)
Direct * COMESA	_	_	2.254**
			(0.880)
Firm size	0.539***	_	_
	(0.054)		
Product quality	0.032	0.073	0.065
1 2	(0.060)	(0.091)	(0.085)
Function (wet-blue)	0.775	-0.143	-0.097
	(0.905)	(1.348)	(1.322)
Function (finished leather)	3.419***	3.573	3.597
((0.867)	(2.180)	(2.244)
Function	1.486*	-0.068	-0.011
(manufacturing)	(0.901)	(2.386)	(2.397)
Fixed effects	Year, product	Year, product, firm	Year, product, firm
Observations	3175 (dvads)	3175 (dvads)	3175 (dyads)
<i>R</i> -squared	0.08	0.19	0.19

Table 4A Stability, dependent variable expressed in months

Notes: SEs clustered by firm are reported in parenthesis. *P*-values (***, ** and * indicate overall significance at 1%, 5% and 10% levels, respectively; in (2d) †††, †† and † indicate significance with respect to Direct * Europe at 1%, 5% and 10% levels, respectively). The reference category for end-markets is Europe. The reference category for functions is raw material.

	Product quality [value > 100,000 USD]	
	(3a)	(3b)
China	-0.043	-0.046**
	(0.047)	(0.023)
India	-0.260***	-0.304***
	(0.078)	(0.041)
COMESA	-0.533*	-0.456***
	(0.310)	(0.166)
Firm size	0.108**	_
	(0.042)	
Fixed effects	Year, product	Year, product, firm
Observations	18,924 (transactions)	18,924 (transactions)
R-squared	0.58	0.70

 Table 5A
 Product quality (for firms exporting over 100,000 USD)

Notes: SEs clustered by firm are reported in parenthesis. *P*-values (***, ** and * indicate significance at 1%, 5% and 10% levels). The reference category for end-markets is Europe.