Upgrading in Global and National Value Chains: recent challenges and opportunities for the Sinos Valley footwear cluster, Brazil.

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To be presented at the EADI’s Workshop “Clusters and Global Value Chains in the North and the Third World”
Novara, 30 - 31 October 2003

Summary: This paper analyses whether firms in the Sinos Valley (a Brazilian cluster specialised in the production of leather footwear) show different patterns of industrial upgrading according to the governance patterns in the main value chains they feed into (the domestic, European, US and Latin American chains). Using a combination of quantitative and qualitative methods, the paper constructs a systematic comparison and analysis of the different types of value chain governance affecting local producers and the corresponding types of upgrading. Results show the US as the most hierarchical and the one where process upgrading was most rapid but functional upgrading less common. The European chain presented lower levels of hierarchy and higher levels of functional upgrading than its predecessor. The Latin American and domestic value chains presented the lowest levels of hierarchy, the highest levels of functional upgrading and lower levels of product and process upgrading. However, the paper also shows that most producers work for several value chains simultaneously and therefore they are exposed to different patterns of governance and upgrading at the same time, situation that can be used (if pursued with intent) to optimise upgrading strategies. In response to increasingly volatile world market conditions, some local firms have undertaken risk-diversification strategies that have highlighted the importance of learning in the national market, particularly for functional upgrading. In this updated version of our 2001 paper, we find that local producers’ realisation of the need for local collective upgrading responses to global value chains demands is becoming widespread.

An earlier version of this paper will appear later this year as a chapter in the book by Hubert Schmitz (ed), Local Enterprises in the Global Economy: Issues of Governance and Upgrading, Cheltenham: Elgar, 2003. The title of the chapter in that book will be: 'The underground revolution in the Sinos Valley: a comparison of upgrading in global and national value chains'.

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1 Introduction

The recent debate on global value chains has been concerned with the influence of global buyers on the prospects for manufacturers in developing countries. Gereffi (1999), the pioneer of this literature, has defined value chain governance as the co-ordination of different and dispersed activities involved in a chain. Since these activities aggregate different value at each stage, being the governor in a value chain ultimately implies deciding who in the chain performs the better remunerated activities as well as the less lucrative ones. Thus, it is clear that the implications of chain governance go far beyond merely organising activities: governance is intimately linked with upgrading and the distribution of gains along the chain.

While the global chain literature emphasises that the upgrading prospects of local producers are determined from outside the locality, the cluster literature suggests that advances in upgrading depend above all on relationships within the locality. Particular attention is given to co-operation between local producers and to the role of public and private support services (Nadvi 1997, Rabellotti 1997, Schmitz 1995). However, this body of literature has increasingly acknowledged the need to include external linkages in the analysis of upgrading processes (Nadvi and Schmitz 1999).

In this paper we combine the value chain and cluster approaches to answer the following questions: What type of chain do local firms operate in? Does the type of chain have an influence on their upgrading? What is the scope for local collective strategies if producers operate in chains governed by global buyers? We examine these questions for the case of the Sinos Valley, a footwear cluster in the South of Brazil. Firms in this cluster feed into a number of chains with different characteristics. It therefore lends itself to comparative analysis of how insertion in global value chains affects upgrading in local firms.

In order to conduct this comparative analysis, we use the chain and upgrading distinctions proposed by Humphrey and Schmitz (2000). Chain governance can take three main forms: network (co-operation among -more or less- equals); quasi-hierarchy (buyers have a high degree of control over suppliers); and, hierarchy (buyers take direct ownership of some operations). When a chain does not have any type of governance, it is characterised by market-type relationships. Upgrading, in turn, can vary from product (moving into more sophisticated product lines), process (transforming inputs into outputs in more efficient ways) and functional upgrading (acquiring new, higher value added functions in the chain, i.e. branding, marketing, design).

The main market of the Sinos Valley is the United States, whose buyers are the undisputed governors of the value chain. In addition the cluster produces for the European, Latin American and the Brazilian domestic market. The governance of these chains varies and this is central to our research design: a systematic comparison and analysis of the different types of chain governance and types of upgrading in local firms.

The paper shows that chain governance is tightest and most hierarchical in the US value chain, where process and product upgrading are common among producers but functional upgrading is rare. Governance is somewhat less hierarchical in the European chain and functional upgrading is slightly more common. The national chains, catering for the Brazilian market, are characterised by market-type relationships and functional upgrading is very widespread. The Latin American chain presents hybrid characteristics (quasi-hierarchy and market).

The paper also analyses tensions between local cluster and global chain governance. This is particularly intense in the Sinos Valley, which has been exposed to tight chain governance but its cluster governance has historically been strong, based on many local institutions (see Schmitz 1995, 1998, Bazan 1997, Ruas 1995). This strong local governance helps to explain our findings of collective functional upgrading efforts (which we regard as a
discreet 'underground revolution') within the cluster, despite the presence of widespread quasi-hierarchical relationships. However, it was the study of changes along the value chain that provided an explanation for the new functional upgrading activities observed in the Sinos Valley cluster. These changes included risk-diversification strategies by global buyers, which in turn loosened governance ties that encouraged diversification moves on the side of local producers. Nevertheless, there are elements endangering this functional upgrading ‘revolution’. They are also to be found both at the cluster and at the chain level via internal rivalries within the cluster and the stronger commitment that some local producers may still feel to their global buyers.

Fieldwork for this research was carried out in 2000. A few extra interviews were carried out in 2003 to prepare the present update. For the original survey, qualitative data was collected through in-depth interviews with 11 global buyers and 9 local business associations and governmental agencies. Quantitative data was obtained through a survey of 81 local firms, covering 40 footwear producers and 41 input suppliers, sampled from the database of one of the leading local business associations. Input suppliers were included in order to deepen our value chain analysis. The samples were stratified according to size of firm and market orientation. Our sample, however, does not fully represent the reality in the Sinos Valley as the research aimed to focus mainly on export oriented firms. The survey covered the period from 1996 to 1999. Earlier periods are also covered by drawing on secondary sources, which were also used to inform the current data update.

The second section of this paper presents an overview of the Sinos Valley’s governance and upgrading trajectory. The third section investigates the relationship between the patterns of chain governance present in the cluster and the corresponding patterns of upgrading. Section four explains why the relationship between chain governance and types of upgrading is not always clear cut; this also justifies our qualified optimism regarding upgrading prospects for the Sinos Valley. Sections five and six use the value chain perspective to analyse the local responses to global challenges faced by the footwear industry in the Sinos Valley: section five focuses on the firm level and section six examines the collective initiatives taking place within the cluster. The paper concludes by summing up its main contributions to the current debate.

2 The Sinos Valley

In 2000, Brazilian footwear producers had an output of 580 million pairs and exported 163 million. By 2002, the output had increased to 642 million pairs and the exports, to 164 million. This performance meant that Brazil ranked 6th place amongst global exporters (ABIÇALCADOS, 2002, 2003). All this would seem quite ordinary for a country the size of Brazil except for the fact that 84 per cent of these exports and more than half of this output came from one single cluster - The Sinos Valley, in the southernmost state of Rio Grande do Sul (bordering Argentina and Uruguay). In recent times, due to a variety of factors such as the migration of producers to other parts of Brazil (mainly to the Northeast), the Sinos Valley is slowly decreasing its participation in production and exports – by 2002, for example, the region counted for 80% of Brazilian footwear exports. However, it is still the main producer and exporter region in Brazil.
According to records provided by ACI (the commercial association of Novo Hamburgo, the 'capital' of the Sinos Valley), in 1999 there were 693 firms and 101,000 workers employed directly or indirectly in footwear production in the Sinos Valley (see Table 2.1). In view of the range and depth of input suppliers, service providers and support institutions that had developed around the local footwear industry, Schmitz (1995) referred to the Sinos Valley as a 'Super Cluster'. As a matter of fact, the Sinos Valley cluster concentrates 60% of the Brazil’s input suppliers for footwear components and 80% of Brazil’s leather and footwear machinery firms (ABICALÇADOS, 2003).

Table 1: Number of firms and workers in the footwear industry of Rio Grande do Sul (RGS) and the Sinos Valley - 1999

<table>
<thead>
<tr>
<th>Region</th>
<th>Rio Grande do Sul</th>
<th></th>
<th>Sinos Valley</th>
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<tbody>
<tr>
<td></td>
<td>Firms</td>
<td>Workers</td>
<td>Firms</td>
<td>Workers</td>
</tr>
<tr>
<td>Footwear producers</td>
<td>367</td>
<td>88,083</td>
<td>269</td>
<td>71,386</td>
</tr>
<tr>
<td>Tanneries</td>
<td>91</td>
<td>15,181</td>
<td>63</td>
<td>10,755</td>
</tr>
<tr>
<td>Machinery producers</td>
<td>90</td>
<td>5935</td>
<td>75</td>
<td>2536</td>
</tr>
<tr>
<td>Input suppliers</td>
<td>222</td>
<td>23,132</td>
<td>198</td>
<td>15,598</td>
</tr>
<tr>
<td>Export agents and transportation firms</td>
<td>93</td>
<td>1296</td>
<td>88</td>
<td>1258</td>
</tr>
<tr>
<td>Total</td>
<td>863</td>
<td>133,627</td>
<td>693</td>
<td>101,533</td>
</tr>
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</table>

Source: ACI (2000). In 50 firms (23 input suppliers and 27 export agents) the number of workers is unknown. Therefore, the number of workers corresponds to 813 firms of RGS and 645 are in the Sinos Valley.

Indeed, the cluster is also remarkable for its institutional density. As other authors have recorded (Schmitz 1995, Bazan 1997, Klein 1991, Ruas 1995) the Sinos Valley has a rich network of business associations and public-private technology and training centres, most of which were created in the 1960s and 1970s.

Therefore, it is not surprising that when US ex-producers of footwear were scouting the developing world for promising sourcing locations, the Sinos Valley stood out for its many advantages. First, it was a well-established cluster, with a long experience in serving the huge Brazilian market. Second, it had already consolidated an extensive network of input suppliers. Finally, it had specialised support institutions.

The 'discovery' of the Sinos Valley in the late 1960s and its subsequent insertion into the global footwear value chain triggered a process of fast growth. In two decades, the cluster transformed itself from a local producer that supplies the national market only to one of the world leading exporters.

However, for all its potential and the enviable range of local institutions, the footwear is still a commodity, known for its price range (USD 8 – 11 in the US) rather than for its design or brand. This is not to say that the product and process upgrading achieved by the cluster is not impressive, i.e. quality and speed are its strong points, but the cluster failed to

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4 These numbers are open to dispute because there is a high turnover of firms (especially due to the footwear crises in the 1990s) and also because some sources include (or ignore) the small workshops (locally called Ateliers) that are so important for the functioning of the cluster. ACI data does not include most of the workshops, but according to other statistics from the national government there were more than 1.400 footwear firms in the cluster with less than 20 employees (MTB/RAIS 1999). By 2001 this number had raised to 1,972. According to the same source, the total number of footwear firms was 2,749 and the number of workers employed in those firms, 126,941 (MTB/RAIS 2001- preliminary data).
re-position itself as a higher-value added producer. At least, this is what Schmitz (1998) concluded. He claimed that this was due to the type of value chain in which the leading cluster firms were inserted.

It seems that most collective attempts to functionally upgrade the cluster were met by resistance from a handful of large local firms who wanted to avoid upsetting their main foreign buyer. This US buyer was acquiring close to 100 per cent of these firms’ output and more than 50 per cent percent of the entire cluster’s. It was indeed a delicate situation and Schmitz (1998) concluded that leading firms used their clout within local associations to block any initiatives aimed at greater marketing independence. Functional upgrading was allegedly being blocked by the cluster’s insertion into the quasi-hierarchical, US value chain.

This conclusion ran contrary to a more optimistic scenario that Gereffi (1994) proposed in his chain analysis in Asia. As the pioneer of recent value chain literature, Gereffi proposes a view of an almost ‘natural’ process of learning and upgrading taking place in the firms that join a global value chain as suppliers. He draws most of his evidence from the Asian garment sector where he depicts a number of success stories regarding firms that managed to improve not only their product and process capabilities but were also able to develop their design, brand and marketing channels.

Therefore, despite the many similarities between the footwear and textile chains (both buyer-driven, low-tech, labour intensive, semi-commodities), conclusions regarding their upgrading patterns were very different. Chain governance seems to be one of the main factors explaining these differences. Investigating the influence of chain governance requires comparative research between more and less hierarchically-governed value chains and this is precisely what this paper presents.

3 Comparison of Governance and Upgrading Patterns in different value chains

While the US has long been its main market (69 per cent of total Brazilian exports in 2000 and 70.6 per cent in 2002 according to ABIÇALCADOS statistical reports in 2002 and 2003), the Sinos Valley also exports to other parts of the world.

Apart from the US, the UK and Argentina are the main markets for Brazilian footwear. This ranking has not suffered any major changes for many years, even though there was a trend in which Argentina and other Latin American countries became increasingly more important as markets from the mid-1990s onwards. This trend was also closely followed by the pursuit of other, less traditional markets in the Middle East. However, the Latin American trend suffered a strong setback in 2002, following the Argentinean economic crash of 2001. This crisis in the neighbouring country caused major losses to Sinos Valley producers but by 2003 there are already important signs suggesting that this market is being recovered. Moreover, the absence of Argentina was quickly compensated with increased sales to countries such as Mexico and Venezuela (Global 21, 2003).

Figure 1 illustrates the distribution of Brazilian exports according to the main value chains:
In sum, the reality of the Sinos Valley makes it possible to conduct comparative analysis of four chains - the domestic, European, Latin American and the US value chains. These four chains present different governance characteristics; this allows for an exploration of whether chain governance makes a difference in upgrading at the firm level. This is one of the main questions of the research.

The pattern of governance in the US value chain constitutes an excellent example of quasi-hierarchy. The US is the largest importer of footwear in the world, buying more than 25 per cent of all the world’s trade in 2001 (ABIÇALCADOS, 2003) and is also the host location of the majority of branded retailers that source their products from the developing world. Being the pioneers of this method of global sourcing, combined with their strong buying power, has made the US capable of imposing a certain type of governance on 'their' value chains. The US quality control practices (namely, with in-house monitoring technicians), tight deadlines and ever increasing pressure to lower production costs have been the blueprint for international sourcing in the footwear industry for more than thirty years.

The typical characteristics of a quasi-hierarchical value chain are apparent in the Sinos Valley’s US value chain. The buyers are the undisputed leaders in the chain, exerting control over intermediaries, local producers and often input suppliers as well (this latter influence is called 'convening power').

This asymmetrical relationship with local producers can be explained by six main factors. First, there has been a marked concentration of exports by a small number of export agents, which in turn had ties with the (also few) importers in the US market. Throughout most of the 1980s and until 1998-99, the main export agent in the cluster (closely linked to the main US buyer of Sinos Valley footwear) channelled between 40 per cent and 50 per cent of the clusters’ exports. Other agents (10 in total), when added together were responsible for another 30 per cent to 40 per cent and the remainder was in the hands of the smaller agents in the cluster (Interview with a trade association officer, 2000). These figures changed dramatically after 1998-99, when the main US buyer changed ownership, causing a series of knock-on-effects further down the value chain (this will be explained in Section 5).

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5 This 'convening power' undermines the authority that local producers are supposed to have over their own supply chain. When selling to the quasi-hierarchies, input suppliers reported that they must meet global buyer’s demands instead of the local producer’s. Often this means lowering prices to meet the stringent low-cost strategies of the global buyers. Input suppliers have sought alternative markets and clients as a response (Bazan and Navas-Alemán 2001).
Second, buyers have resisted sharing their knowledge on higher value added activities such as design, branding, marketing and chain co-ordination. Third, buyers had numerous and different sourcing (or 'exit') options such as China, Spain and Portugal in the unlikely scenario that local producers did not accept their terms. Fourth, this same degree of choice was not available to local producers operating in this chain due to their lack of original design and marketing channels into the US. As a result, being cut off from this important market was a huge deterrent for dissent. Fifth, even though concerned about quality, the US market tends to be a price-driven value chain, which results in low profits. Buyers bargained with several footwear producers in the Sinos Valley simultaneously in order to keep prices low (particularly when dealing with non-branded footwear). Finally, US final buyers are very large, demanding bigger batches than buyers in other markets, and yet, as mentioned earlier, the US market has very few ‘gatekeepers’ (importers). This combination of factors places final buyers, and intermediaries linked with them, in a very comfortable position to exert power over producers.

Other buyers from the developed world (mostly in Europe) have copied the US’ sourcing practices, including the division of labour between global buyers (in charge of design, marketing, branding and supply chain organisation) and local footwear producers that only deal with the manufacturing aspects.

However, even if there are many similarities between the US and the European value chains, there are also many differences. As a result, the phrase 'soft quasi-hierarchy' is more appropriate to describe the European value chain sourcing from the Sinos Valley.

Many local producers distinguished European buyers from US buyers because of their higher interest in quality. This emphasis on quality led buyers to have more respectful and closer relationships with producers because they have often had to work together to achieve such quality improvements. European buyers were also reported to be more willing to pay slightly higher prices. This need to appear respectful may be linked to the necessity of finding ways to compete with long established US buyers (and their large orders) in attracting the best Sinos Valley’s producers. However, this does not allow for this type of chain governance to be called a network since differences in power between buyers and producers are still significant. Indeed, European buyers still have greater control over what needs to be produced and they have more exit options (sourcing from other similarly priced places) than Brazilian footwear producers. Furthermore, the European chain has its gatekeepers as well, i.e. the big importers/wholesalers. They often try (and succeed) to insert themselves between independent Brazilian agents or Brazilian footwear producers attempting to sell directly to the large chains of shops in Europe.

The organisation of the domestic value chain is completely different from the global chains outlined above - the relationships between producers and buyers are market-based. This is reflected by a number of different indicators such as the low degree of buyer concentration and sales concentration to main clients, the strategic option of selling directly to retailers by using the producer’s own sales representatives and, more importantly, the main strategic activities (design, branding and marketing) are carried out by producers instead of buyers. Sales representatives are hired by producers and this sets them apart from exporting agents (who are hired by buyers) in the quasi-hierarchical chains. Therefore, the main differences are that sales representatives are accountable to the producers, buyers (local wholesalers and retailers) do not control any of the strategic activities mentioned above and these conditions, combined with the atomised local footwear demand make market-based relations the main trend in the chain.

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6 For more detailed figures on buyer and sales concentration, see Bazan and Navas-Alemán, 2001.
The main obstacle facing domestic producers is the fierce competition amongst them. According to local firms, a small number of footwear producers (that own famous local brand names) already dominate the domestic market making it difficult for non-branded producers to succeed in it. As stated by the owner of a medium sized firm supplying the US value chain: “The domestic market belongs to the big branded firms or, instead, to the ‘fabriquetistas’ [small, usually sub-contracted firms]. You have to have your brand, and this demands big investments”. In addition, the influx of cheap Chinese footwear in the 1980s made the conquest of new markets more urgent than ever. Brazilians had developed a high quality footwear industry that was not paralleled in neighbouring countries. In fact, many consider Brazil the 'Italy' of Latin American footwear making. Therefore, it was domestic-oriented firms who first saw the opportunity to use their competitive advantage and sell to the Latin American market either with their own sales representatives or contacting the importers/retailers directly.

This is why the majority of Brazilian firms selling to the Latin American market continue to be the big branded, (originally) domestic-oriented firms. They have been entering the Latin American market in the same way that they operate within the domestic value chain, i.e. through market-based relationships, and this had been the pattern of governance that defined the Latin American value chain until the mid-1990s.

This picture is evolving and nowadays, entering the Latin American market has become a market-diversifying strategy for all types of Brazilian footwear producers, even the ones that do not have their own brand for either the US, European or domestic markets. One of the new strategies is that of export agents creating their own brands and hiring Brazilian producers to do the manufacturing (quasi-hierarchy). Another strategy involves producers selling (without a brand) to Latin-American importers/shops that put their own brand on the shoes. In this case, since there is no agent and no instructions given by the buyer to the producer we could consider this a type of market relationship but it is still rare.

Some of the export agents interviewed for this study felt that Brazilian branded producers have ‘more vanity’ and are not as flexible regarding sales without brands or other schemes to sell to other countries. Arguably, unbranded producers that are traditionally net exporters do not have anything to lose by being more “open to sell without a brand in Latin America”. By contrast, domestic branded companies do have something to lose - the chance to cash in on the hard-won assets of brand and design.

Therefore, the pattern of governance in the Latin American value chain depends very much on the channel used by Brazilian producers to enter these markets. The more they use export agents, the more the quasi-hierarchical US pattern of governance is replicated onto the Latin American value chain. The opposite is also true, the more firms enter such markets through direct sales, the more it takes the shape of the domestic value chain - market-based. Since Latin America was not the main market of most firms at the time of this survey, a situation that has not changed by 2003 (according to recent communications with our key informants), it remains to be seen which pattern of governance becomes more common in the near future, as the importance of Latin American markets is slowly –but steadily increasing.

Having described how the four chains are governed we can now investigate whether the upgrading experiences of local producers differ according to the type of chain governance. One way in which we analysed the influence of chain governance on upgrading was by comparing the type of upgrading efforts that were determined by buyer demands. In the following star diagrams (Figures 2 and 3), we will highlight the different demands buyers place on footwear producers that are operating in a quasi-hierarchical chain (US or Europe) and those who work in a market-based chain (Brazilian domestic market).
As shown above, buyers in quasi-hierarchies have expectations regarding their producers’ performance that clearly reflect a greater concern with product and process upgrading compared to functional upgrading. In the US chain, for instance, buyers place emphasis on price, quality improvements and flexibility rather than in design. During interviews with both buyers and footwear producers in the quasi-hierarchical chains, it became clear that although ‘innovative’ modelling and usage of new materials are buyers’

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7 Innovative modeling is a term that aims to capture the added value an experienced producer can provide by translating original designs into technical specifications with minimal (if any) support from the buyer.
concerns, they are limited to the footwear producer’s ability to cope with the new models and materials requested by the buyers; because it is the latter who provide the original design.

A different situation characterises the market-based chain. Although quality, delivery reliability, innovative modelling and design are also concerns for these buyers, they reported that ‘innovative’ modelling and design are more important. They expect original designs and independent innovation to be carried out by producers because domestic buyers do not have this expertise. Additionally, domestic buyers expect Brazilian producers to create several design collections a year and to have an increasing number of models and lines of products.

3.1. Upgrading patterns in the US and European value chains (quasi-hierarchies):

These chains are characterised by strong product and process upgrading and weak functional upgrading. Apart from quality programmes, footwear producers that operate mainly in the US value chain have invested heavily in cutting costs by reducing rejection rates. They have also made the highest investments in product and process upgrading, as Figure 4 illustrates. This is consistent with buyers expectations, i.e. that the producer excels first and foremost in manufacturing. These footwear suppliers have become highly competent in footwear production, reaching quality levels that are comparable with the ones achieved by Italian manufacturers, thus corroborating Knorringa and Schmitz’s (2000) findings.

![Figure 4: Footwear producers – investments in Process and Product upgrading from 1996 to 1999](image)

Local producers operating in the European value chain seem to have invested less in the improvement of their production processes than US footwear suppliers and indeed, they have invested less than domestic-oriented firms. This can be explained by the fact that European buyers have been particularly selective when choosing suppliers in Brazil and because these producers made most of their investments before 1996. Between 1996 and 1999, few producers in this chain invested in new production methods with the exception of the adoption of CAD-CAM, an innovative tool used nowadays by many firms in the cluster regardless of the chain they operate in.

Many sampled producers in the quasi-hierarchical chains stated that their agents were actively supporting them in product and process upgrading strategies beyond quality control.
Export agents working within the US and European value chains were reportedly committed to the improvement of every aspect concerning the production process in supplying firms. In other words, we could see a commitment on the side of agents in terms of the product and process upgrading of the producers that work for them, even if most of the support is given in a top-down, hierarchical way. However, as already pointed out by Schmitz (1999), this flow of knowledge used to be stronger in the cluster’s earlier days. The Sinos Valley is now a mature cluster with the majority of producers having already learned the most important pieces of knowledge regarding production.

Furthermore, among the sampled firms that have the US as their main market, approximately half of them had introduced new lines in this market. In most cases, these new lines were of a higher price. Notably, all new lines remained under the brand of the US buyer. Nevertheless, producers were very satisfied with the skills acquired when introducing these new lines. For instance, there were several producers of sandals that had been upgraded over a period of time to supply boots (higher-cost and more complex products).

Surveyed firms that operate mainly in Europe also reported high level of process and product upgrading. In fact, 50 per cent of them had produced higher value added lines (under the buyer’s brand) in the last three years. However, progress in functional upgrading was more difficult to find among producers working mainly for the US and European value chains. In order to progress in this aspect, local producers would have to invest heavily in developing their weaker areas, i.e. branding, marketing, design and R&D. They would have to try and create their own designs, develop a brand, participate more actively in the marketing strategy, etc. These efforts could even be undertaken in another market, different from the US or Europe. This leads us to question - are producers in quasi-hierarchical chains taking these steps? According to our results, none of the surveyed producers in the US value chain have launched their own new lines or new brands in new markets. In contrast most producers (around 75 per cent) in the European chain had introduced their own brands in new markets and one of them even designed a new line (distinct from the style it had currently been producing) for that new market.

Even though these achievements in functional upgrading are attributed to producers who had developed under a European quasi-hierarchy, they did not take place in a European country but in the Brazilian domestic market. These results hint at a finding that we corroborated during our in-depth interviews, i.e. working in the European rather than in the US value chain does offer better learning opportunities for firms to upgrade functionally in new markets. We argue that this is due to the most notable difference between European and US buyers - while the former tend to be more quality-driven, the latter tend to be more price-driven.

The US value chain tends to put great pressure on prices. However, this does not imply that they are not demanding about quality. According to our findings, what US buyers want is a better quality for the lowest price possible and this expectation makes it difficult for them to sustain trustful relationships with their footwear producers. Footwear producers prefer to deal with European buyers because they are perceived as more respectful and reasonable in their demands. It follows that producers want to have longer (and closer) relationships with European buyers, which is a pre-requisite for high quality learning to take place between two links of a value chain. We believe the kind of learning that takes place in the European quasi-hierarchy is more conducive for the functional upgrading of their footwear suppliers than the type of learning that takes place in the US quasi-hierarchy.

Indeed, we gathered evidence on the failed attempts of several non-branded footwear producers (that had been operating in the US quasi-hierarchy for decades) to enter the domestic market by creating their own brands and designs. They were easily swept away by the established branded domestic producers. Large investments in market research,
advertisement and hiring of designers were lost in those attempts, and many of those firms decided to compete in the less demanding Latin American market (usually through export agents). The domestic market posed a formidable challenge even for the traditional suppliers to the US value chain that considered themselves part of an 'elite' of world class manufacturers. This does not appear to have been a substitute for years of experience in creating original designs, developing marketing strategies and nurturing strong brands, even if it was for the domestic market only.

3.2 Upgrading patterns in the Brazilian domestic market and Latin America (market-based)

These chains are characterised by strong functional upgrading and moderate product and process upgrading. Domestic-oriented producers have devoted more resources to investments in product and process upgrading than firms operating in the European value chains but less resources than US-oriented producers. According to our survey, domestic-oriented producers have had to divide their ‘upgrading’ resources between the two types - functional and product/process. The reason for this seemingly even distribution lies in their recent preparations for exporting to new markets (part of what we have called the 'Underground Revolution'). This issue will be detailed later, here we will deal with the product/process type of upgrading.

Domestic-oriented firms, used to making their major investments in internal market research, branding and design, realised that in order to penetrate export markets (beyond Latin America) they needed to match the internationally renowned product and process performance levels of producers exporting to the US or Europe. At the same time, domestic-oriented producers had to guard their local market share, given recent attempts of suppliers to the US trying to compete in the internal market by introducing their own brands in Brazil. The boundaries of competition are blurring, further investments in process and product upgrading became imperative, but they did not count on the support of export agents. In the case of domestic-oriented firms, private consultants have played a key role in offering advice for implementing any kind of upgrading strategies.

As for functional upgrading, it has been shown that domestic-oriented firms working within market relationships tend to be responsible for all the strategic tasks of design and branding. At the same time, domestic and Latin American buyers have less knowledge of these two areas (design and branding) than local producers. Domestic buyers specialise in sales and marketing, therefore any over-dependence by producers on (domestic) buyers based on knowledge is unlikely to occur.

Despite selling through intermediaries (sales representatives), producers in the domestic market do so on different terms to those selling to the US and European markets, i.e. sales representatives are basically concerned with trading, they have no links with any other activity other than finding buyers for the footwear producers. Sometimes they can also help producers by facilitating indirect exchange of information between producers and retailers. As outlined earlier, our findings show that in most cases functional upgrading among domestic-oriented firms is linked with product and process upgrading as well. For instance, the development of new lines of products (product and process upgrading) is often

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8 According to our findings, among the 24 firms that sell for the domestic market, 91.6 per cent use sales representatives (representante comercial). Sales representatives are also used by 14 per cent of the 15 firms that sell to Latin America. In other regions, such as Europe and the US, direct sales to retailers (less common) are made either through the client’s office in Sinos Valley (17.6 per cent of sales from 17 firms that sell to Europe and 4.5 per cent of the 22 that sell to US). Two domestic producers that sell to Europe and two that sell to the US do so through their own sales offices abroad (Authors’ survey 2000).
done in conjunction with the launching of new brands and the search for new markets (functional upgrading). Data for this chain shows that more than half of the firms have developed new lines at higher priced levels for their traditional market. Approximately 20 per cent of them have done so through a new brand. Moreover, 15 per cent of surveyed firms have introduced new higher value lines in new markets. Finally, some firms have developed new lines at a lower price either for new markets (20 per cent) and many for their traditional market (55 per cent). In most cases, it has been done through the launching of new brands (75 per cent and 54.5 per cent respectively)

To summarise this section, we can conclude that footwear producers operating in value chains based on market relationships (such as the Brazilian domestic market) are more likely to achieve functional upgrading than producers in extreme quasi-hierarchical value chains such as the US value chain. Softer quasi-hierarchies such as the European value chain have been less inimical to functional upgrading. Product and process upgrading are actively encouraged and supported by quasi-hierarchical buyers. Table 3.1 presents these conclusions in a more schematic way:

**Table 2 – Governance in the footwear value chain and implications for local upgrading of footwear producers**

<table>
<thead>
<tr>
<th>Dimensions of governance and implications for upgrading</th>
<th>Quasi-hierarchies</th>
<th>Market relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market share</td>
<td>US</td>
<td>Europe</td>
</tr>
<tr>
<td>Buyers concentration</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Dependence on intermediaries</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Unequal division of essential activities in the chain</td>
<td>High</td>
<td>Medium to high</td>
</tr>
</tbody>
</table>

**Upgrading**

<table>
<thead>
<tr>
<th>Product and Process upgrading</th>
<th>High</th>
<th>Medium to high</th>
<th>Medium to high</th>
<th>Medium to high</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional upgrading</td>
<td>Low</td>
<td>Low to medium</td>
<td>Medium to high</td>
<td>High</td>
</tr>
</tbody>
</table>

Source: Authors’ own research.

Our results show that although the Sinos Valley has followed a successful upgrading trajectory from its humble origins before the decade of the export boom (1970s) to its current position as one of the top footwear producers in the world, this progress has been marked by strong internal differences. Process and product upgrading has taken place for most of the firms in the cluster, but functional upgrading seems elusive, particularly to firms that are mainly engaged in exporting through the quasi-hierarchies. Generally speaking, firms exporting to the US and Europe have been concentrating most of their efforts on production rather than design, branding and marketing. Firms in the domestic market have their own brands, but feel unable (with few exceptions) to enter the US and European markets with these brands. In short, the widespread functional upgrading that Gereffi (1994) observed in Asia when clusters enter a buyer-driven value chain has failed to happen.

We corroborate Humphrey and Schmitz’s (2000) indication that this failure is linked to the more predominant pattern of chain governance - quasi-hierarchy. Moreover, we found that a quasi-hierarchical type of governance may be established in any value chain, not only in the US and European chain. Even in the domestic and Latin American chains, quasi-hierarchy may exist when producers relinquish most (or all) control over activities such as branding, design and marketing to their buyers.

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9 For domestic-oriented firms, we included as ‘new markets’ other states within Brazil where the producer had started selling his/her footwear.
However, we also found increasing evidence that market-type relationships have become a way for producers to 'escape' from the dependence path established by quasi-hierarchy. Furthermore, given the alleged pervasiveness of this type of value chain governance, success stories of functional upgrading were significantly more numerous than one would expect. Thus, there were several signs of more hopeful developments taking place in the cluster.

Therefore, even if chain governance matters for the type of upgrading achieved by local producers, this relationship is not necessarily clear-cut. We will see in the next section how we were able to perceive these signs towards upgrading which make this paper perhaps a bit more positive regarding local clusters' chances for functional upgrading even when exposed to high degrees of quasi-hierarchy.

4 Towards an optimistic diagnosis

In the previous section we focused on the dominant patterns of chain governance and the associated dominant patterns of upgrading. The strong presence of the US quasi-hierarchical style to value chain governance has usually been blamed for the lack of a generalised functional upgrading effort in the Sinos Valley. Yet, as we have seen in the previous section, the US value chain is not the only one exerting its influence on the cluster. There are (at least) four distinct value chains operating in the Sinos Valley, and more importantly - many firms work within several types of chains simultaneously. Therefore, this study is offering a new view of qualified optimism on the upgrading prospects of the Sinos Valley by taking a closer look at two main factors. First, the variety of upgrading opportunities due to the presence of different chains and second, the use of these opportunities by individual firms operating in different value chains simultaneously.

Even the most recent studies on the Sinos Valley (Schmitz 1999, Knorringa and Schmitz 2000) have concentrated on the global value chains that the cluster belongs to and neglected national and regional (i.e. Latin American) chains. Those studies could not capture the type of upgrading (functional) that was taking place in the national value chain as well as in the other value chains of Latin America, and to a lesser extent, Europe. This bias has to do with a pervasive idea in academic and policy making circles, that 'learning by exporting'10 is superior to any learning acquired within the national frontiers (particularly, but not exclusively) of a developing country.

If Brazil were a small country with an undemanding market, these achievements in functional upgrading by domestic-oriented firms could be dismissed as unimportant. But that is hardly the case. The Brazilian footwear market is large (480 million pairs in 2002 according to ABIÇALCADOS, 2002), sophisticated and therefore very attractive to any international producer. However, (mostly) Brazilian companies are supplying it. These companies are not the net exporters, these are companies that devoted themselves to the national market and upgraded by working and learning with it.

As a rule, US and European buyers do not allow their Brazilian suppliers to sell the same products that are made for the northern markets directly into the Brazilian market, so any domestic venture has to be fully designed, marketed and manufactured by the Brazilian producers on their own. According to the 'learning by exporting' paradigm, Brazilian suppliers should not have any problem transferring the skills learned by exporting to the manufacturing of footwear for the domestic market. Indeed, the evidence from our research shows that they are able to transfer their skills in product and process upgrading, but little else. As mentioned before, there have been numerous attempts by the traditional exporters

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10 For different critiques of the merits of this paradigm (which escapes the scope of this paper) please see Clerides et al, 1998; Tewari, 1999; Tybout and Westbrook, 1995 and Rodrik, 1999.
(belonging to the US value chain) to penetrate the domestic market but success is very rare. Unfortunately, the type of functional upgrading skills required to succeed in the domestic market (and in international markets) is not learnt when exporting through quasi-hierarchies. On the other hand, these skills seem to flourish when firms work through market-relations.

This important learning advantage of domestic-oriented manufacturers had not been detected in most studies on the Sinos Valley. The reasons for this are twofold. First, the market-based value chains had not been thoroughly analysed, particularly in regard to their potential to promote upgrading. Second, this advantage has become more important and visible now, when the traditional advantages of quasi-hierarchies (higher margins, regular payments in foreign currency, security and less responsibility) are being eroded by the commoditisation effects of globalisation and some well-known flaws are becoming more evident (over dependency on the buyer, lack of control over the firm’s future, fickle commitment on the side of the buyer, constant pressure to lower costs and prices, etc).

How then does one explain the advances in functional upgrading made by a few net exporting firms? This apparent contradiction can be explained by two factors: (i) The long history of knowledge diffusion in the Sinos Valley (better explained by the literature on clusters than the value chains); and (ii) the fact that most producers work for several value chains simultaneously. Therefore, it is the experience of functional upgrading in the national value chain that is being transmitted to experiments in export markets and not vice versa as usually presumed.

The literature has not sufficiently recognised the significance of operating in several chains simultaneously. By working for several value chains these companies are exposed to the different styles of governance that stimulate different types of upgrading. This is very powerful when combined with a deliberate intent to apply the newly acquired capabilities in the more flexible value chains (usually the market-based ones). Sinos Valley producers that follow this strategy distinguish themselves from others by penetrating new and old markets with their own brands and engaging in product and process upgrading whenever it is convenient for them and not only when directed by the governors of the chains (in the case of the quasi-hierarchy).

This argument is not entirely new, it has been made before by Lee and Chen (2000) and by Kishimoto (2002) when they talk about 'leveraging competences'. Lee and Chen provide a particularly useful insight when they observe that a company’s development strategy does not have to be linear in all cases. That is to say, following the path from OEM (Original Equipment Manufacturers) to OBM (Own Brand Manufacturers) status in one single value chain is not the only way, or indeed the ideal way, for all firms. Taking the case of resource-constrained contract manufacturers, Lee and Chen explain that firms may be OBM in one market and still be OEM in another, while always pursuing a growth strategy based on the synergies between different business activities.

There seems to be one short term caveat regarding the profitability of this strategy. Lee and Chen (2000) suggest that firms following OBM strategies in some markets would receive higher incomes, which in turn would support the rest of the operations. We did not find evidence of increased incomes for firms pursuing functional upgrading activities in the Sinos Valley in comparison to others that remained solely unbranded manufacturers\footnote{A co-relation test (Pearson), suggests that mainly export firms presented better performance regarding increases in profitability. The same test also suggests there is a correlation between increases in profitability and size of firms (the biggest the firm, the higher the increases in profitability. However, the same co-relations were not found for other performance indicators, as increases in sales, production or number of workers.}

Investments in marketing, design and branding are high at the beginning so perhaps another survey should be made in a few years time to measure whether the returns justified such expenditure. It could be argued, however, that because of the increasing
commoditisation of footwear production and tough competition from several clusters around the world, pursuing an OBM strategy in one or more markets could be a survival strategy rather than a means of just raising profitability.

In brief, evidence from governance patterns and upgrading efforts from all the main chains (export and domestic) present in the Sinos Valley provided the basis for this study’s comprehensive analysis on the cluster’s upgrading scenario. Thus, it became apparent that along with its well-known achievements on product and process upgrading there has been a degree of functional upgrading in the Brazilian cluster of the Sinos Valley. Perhaps it has not been a total re-positioning of the cluster at a global level (becoming the next 'made in Italy' type of cluster) but something has changed since the mid-1990s. The Sinos Valley’s self-depicting phrase “we don’t sell, we are bought” is no longer valid.

5 An underground revolution?

For almost three decades the Sinos Valley experienced the contradictory situation of being a successful cluster (in economic terms) but highly vulnerable due to its strong dependence on US buyers. This vulnerability was seen as a small price to pay when compared to the instability of the Brazilian domestic market that was riddled with currency crises and hyperinflation. Therefore, any factor that reduced the capability of Brazil to sell footwear to the US was regarded as a threat, and eventually, as a crisis in the Sinos Valley.

In this context, it becomes clear that the cluster carefully avoided any action on the side of Brazilian producers that had the potential to alienate US buyers. Upgrading strategies of a functional type were seen as a challenge to the lead firms in the quasi-hierarchies, since these actions would encroach on the core competences of US buyers (marketing, branding, design). The fear of possible retaliation from buyers combined with steady, safe incomes in US dollars made Brazilian producers view any attempt at functional upgrading an unnecessary risk. But from the early 1990s onwards, the globalisation winds were blowing strongly and the foundations of this comfortable arrangement started to weaken. Producers in quasi-hierarchies had adopted all process and product upgrading techniques indicated by their buyers and still felt at risk of losing important shares of their main export markets to China\(^{12}\) (particularly in the US) and to Portugal and Spain in Europe. Undetected by many (notably in Brazil, where producers remain fixated on Italy as the only upgrading model to be followed), the impressive and fast upgrading (in all its forms) taking place within the footwear industry in Spain – where the joint efforts of local trade associations and local governments have brought the bulk of Spanish footwear exports to the USD 18 – 20 per pair bracket (AAFA, 2003; Office for National Statistics (UK), 2002) - has also left Brazil in a more direct competition with China, which is not a comfortable position for any producer\(^{13}\). In the domestic market, low-cost Chinese imports were also making local Brazilian producers increasingly concerned.

A timid but inexorable process of risk diversification emerged within the cluster. Suppliers of the quasi-hierarchies began coveting larger shares of the domestic and Latin American markets (sometimes by developing their own brands). Domestic-oriented firms realised they could export more of their products and complement their incomes with more foreign currency. This process has been very subtle in order to reassure traditional buyers in

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\(^{12}\) It is worth mentioning that the quality of Chinese footwear has been improving quite rapidly, in some cases due to the technical support of Brazilian technicians hired by US buyers to teach the Chinese workforce how to make shoes. When this survey was being made (2000), it was common to find several ads in the local Sinos Valley press offering good salaries in US dollars for technicians wanting to relocate for one or two years in China.

\(^{13}\) Indeed, the average price for Brazilian exported footwear has been decreasing since 1998. At that time it was USD 10.16, then in 1999 it was USD 9.33 and in 2002 it sank to USD 8.83 (ABICALCADOS, 2003).
the quasi-hierarchies that they are still important customers. Thus, we have termed this process an 'underground revolution'. In this section we will concentrate on the individual efforts undertaken at firm level. The next section will tackle the collective and institutional dimensions of this revolution.

The origins and effects of this underground revolution are better explained using a value chain perspective. As mentioned above, from the early 1990s falling footwear prices and growing competition from global footwear producers had created an environment of greater uncertainty and increasing volatility of markets. In order to satisfy the new global requirements, local producers and input suppliers concentrated (with the encouragement of their buyers) on improving their manufacturing abilities (product and process upgrading) and lowering costs. All these efforts pushed the cluster even further into the 'world class' manufacturing status, according to a survey of global buyers carried out by Knorringa and Schmitz (2000).

However, if footwear producers thought that these improvements would guarantee global buyers’ loyalty, they were disappointed. On the contrary, in the Sinos Valley it had become possible to reconsider relationships because of the 'generalised competence' achieved by footwear producers and input suppliers. It became possible for buyers to 'shop around' to reduce costs and producers had to do likewise with input suppliers. Internal ties loosened in the cluster as they had been loosening globally between global buyers and supplying clusters. Excellent levels of manufacturing became more ubiquitous and cheaper the more buyers looked around.

Many global buyers felt that it was in their best interest to diversify their sourcing operations in order to protect themselves from sudden price rises and economic or political crises that could affect deliveries. This meant that they could protect themselves from any unforeseen problems arising from their sourcing regions. For Sinos Valley’s customers, this precaution became particularly acute between 1994 and 1998, when Brazilian footwear was relatively expensive due to the strength of the new currency (The Real) and the weakness of the Euro at that point in time. Even Brazilian export agents had no qualms in transferring part of their sourcing operations to China and/or buying from the European competitors of the Sinos Valley.

The main catalyst for change, however, came in 1998/99 when a very large US apparel group, (whose main business is not footwear) bought the major customer of the Sinos Valley. This customer accounted for 40 per cent of total cluster exports and up to 80 per cent of the output of the five largest and most powerful firms in the cluster. The sale meant a substantial reduction in the buyer’s commitment to the cluster, to the extent that the five leading firms (formerly reluctant to change strategies) were forced to consider other value chains apart from the US.

This event shook the roots of the cluster’s powerful establishment because it affected the large, US-oriented footwear producers as well as the small and medium ones in contrast to previous crises. Even the most conservative firms realised that market diversification and progression into other essential (and higher-paid) chain activities such as marketing and design had become imperative.

Buyers in general loosened their demands on 'exclusivity' from producers, even encouraging the latter not to be 'overly dependant' on one buyer. Reserving certain 'moments of production' for preferred customers emerged as the new custom. Therefore, the need for a diversification strategy was 'passed down' the value chain forcing all producers to find new markets and new outlets for their products.

Input suppliers for the footwear industry deserve a mention here, since they were among the first firms in the cluster to react in the face of decreasing orders, declining prices and increasingly demanding expectations from footwear global markets. They realised that
they could not rely on the footwear industry alone to keep their businesses running, so they
began selling their products directly to other industries and even to global footwear
competitors of the Sinos Valley. Input suppliers have been very successful in their
diversification strategies. There may be a link between this success and the long experience
this sector has accumulated whilst working for customers operating in different value chains
and even supplying different industries\textsuperscript{14}.

Diversification is the key to the underground revolution. Producers in the Sinos
Valley are attempting to increase their chances of success by acquiring new skills and trying
to utilise them in several value chains. Compared with earlier decades, there is more
emphasis on keeping a good ‘market mix’ than relying on one main market. Ideally, each
firm would like to have a share of the domestic market and export as well. This balance is
being approached from different starting points. Export-oriented firms working in the quasi-
hierarchies are attempting to enter the domestic market and domestic-oriented firms are
trying to increase their exports. Furthermore, both types of firms are trying to protect their
traditional niches from newcomers.

For the domestic-oriented producers, keeping their brand is an integral part of their
strategy. They are transferring the lessons learnt in the domestic market to their exporting
ventures, i.e. export agents are avoided and when required, they are hired by the producer so
that they act on behalf of the producer instead of a foreign buyer.

A Brazilian export agent in Novo Hamburgo explained a risky functional upgrading
strategy:

\emph{A couple of years ago, a local shoe producer decided to enter the US market with his
own brand and offered to hire my services as an export agent. I accepted the deal not
only for the commission, but also because I was already thinking to launch my own
brand in external markets and this was an excellent opportunity to learn the ropes
before actually doing it for myself. The risks of such an incursion are high: a project
to position a brand in the US can cost around 5 million US dollars over two years,
without any guarantee of success.}

Therefore, another barrier that Brazilian brands face when trying to penetrate the US
market is the cost. Lack of resources may be one of the reasons why Brazilians have not been
more aggressive in appropriating branding and marketing, and since their US buyers are very
powerful, a failed branding exercise can leave the entrepreneur in a very vulnerable position.
Additionally, if any of the firm’s US customers felt alienated by the upgrading attempt, there
is a high chance that the relationship will cease; this in itself constitutes another strong
deterrent for aspiring functional upgraders.

Another interesting trend is that export agents are also trying to upgrade. They have
all the obvious capabilities to enter markets (both domestic and external). They are quite
knowledgeable in some of the key activities in the footwear value chain, i.e. marketing,
design, brand, quality control, chain co-ordination, etc. Although they are not manufacturers,
producing to specifications is a competence which can be easily ‘hired’ in the Sinos Valley. It
is quite possible that the new competition for local branded producers wanting to export will
come from export agents.

Apart from exporting with own brands, there is another functional upgrading strategy
that is available to a few domestic-oriented firms - becoming governors of their own chain
within the domestic market. We refer here to the case of some firms in the Sinos Valley that

\textsuperscript{14} For a more detailed discussion on chain governance and input supplier’s upgrading patterns in the Sinos
Valley, see Bazan and Navas-Alemán, 2001.
are following the example of designer footwear companies from São Paulo and Minas Gerais. This entails ending production and concentrating on the chain co-ordination activities including marketing, design and brand name. Again, locally export agents and trading companies are also following this trend. However it is important to note that the internal distribution network in Brazil is so complex that export agents competing with domestic producers still need to hire the services of local sales representatives to deal with retailers.

As for the really large branded footwear producers in Brazil, they are independently searching for new markets, i.e. without assistance from export agents. A few of them have pursued this strategy for a number of years by establishing their own marketing and sales offices abroad, even in the US and Europe. In a more recent step towards diversification, some firms are establishing sales offices and even industrial units in Mexico, from where they can easily reach the US and Canadian markets through NAFTA. These strategies are too costly for smaller firms so they have forged direct alliances with distributors in the US. These alliances are forged after many business trips to trade fairs and often complex negotiations in order to convince distributors to sell incipient but increasing proportions (approx. 15 per cent) of their branded output in the US, without abandoning the domestic market. Some of them are paying high sums for distributors to advertise Brazilian footwear in the central and western cities of the US.

At the other end of the spectrum, unbranded Brazilian producers exporting to the US and Europe are experimenting with functional upgrading in the domestic market. As mentioned earlier, these firms are trying to enter the domestic market by creating their own brands, for example one of the largest producers in the US value chain has adopted this strategy. This path, however, appears to be as difficult as it is to search for new markets abroad. Since the early 1990’s, domestic-oriented firms fortified their position by increasing investments in their market. Such investments were enhanced in the period 1994-1997. As a result, some domestic firms developed established brand names and captured large market shares in the domestic arena. Thus, for export oriented firms, as much as for any newcomer in general, entering the domestic market is a difficult task.

In sum, firms in the Sinos Valley saw their belief in the loyal buyer disintegrate in the late 1990s thus intensifying competition within the cluster and with other producer regions in the world. This challenge to the cluster’s stability came from the top of the US value chain but local firms have been able to rearrange their inter-firm relationships and their activities due to the pre-existing ‘generalised competence’ of producers and input suppliers. The strength of the cluster, combined with the loosening of vertical ties in the quasi-hierarchies made it possible for the Sinos Valley to adapt to the changing requirements of its various markets.

One of the reasons this did not happen earlier is the fear of buyer retaliation. Indeed, a combination of qualitative and quantitative evidence (Bazan and Navas-Alemán 2001) suggests that the fear of buyer retaliation still limits many producers’ intentions (particularly in the quasi-hierarchies) to pursue a functional upgrading strategy. Second, regardless of such trepidation, some producers are either finding ways to avoid confrontation or finding the determination to assert new upgrading strategies (changing buyers if necessary). Third, most firms in quasi-hierarchies do not feel prepared or confident enough to pursue a functional upgrading strategy in their main value chain, whereas firms in market-based chains seem more inclined to venture into all types of value chains (with a fair degree of success). Finally, the threat of buyer retaliation (while still a possibility) has been subdued by the loosening of ties in all value chains and partially offset by the need to diversify risks and ensure survival in the markets.
6 The Institutionalisation of the Underground Revolution

The previous section concentrated on the implications of chain governance at the firm level. This section explores the connection between chain governance and collective upgrading strategies. As mentioned in Section 2, many highly specialised local support institutions are located at the Sinos Valley. They have been instrumental for product and process upgrading in the cluster by complementing the contributions of global buyers. Yet, Schmitz (1998) concluded that they could not help to reposition the Sinos Valley in the world economy.

Our research showed that this had greatly changed by year 2000, when several collective upgrading initiatives were established. During our survey, we came across alliances and healthy competition amongst many institutions in order to come up with the best sectorial programme for local functional upgrading. Such openness towards programmes that openly announced their aims to create a collective brand for the cluster (such as 'BY BRASIL'), to encourage local producer participation in international trade fairs, and to support the development of local designs, was a stark contrast with the earlier situation.. According to Schmitz (1998), the five most powerful firms in the cluster (tightly committed and allied to their US buyer) had blocked a very similar programme called 'Calçado do Brasil' (Footwear from Brasil).

It was clear that this significant change at the institutional level in 2000 increased the scope for collective action at the cluster level. This turn of events raised the questions: Why did this change happen? Why did it happen at this time? Again the chain perspective helps to understand this process. As mentioned in the previous section, a change of ownership occurred at the top of the dominant value chain, i.e. the takeover of the key US buyer who previously bought half of the Sinos Valley’s exports and who maintained a close relationship with the top leading firms in the cluster. This change of ownership, as well as the increased sourcing from China, resulted in a declining commitment to purchasing from the Sinos Valley. As a result, local lead firms realised that some of the initiatives they had blocked in the past would now be advantageous.

They relinquished their grip on ABIÇALCADOS (the local footwear trade association), which in turn gave the other associations that were influenced by it a breathing space. This withdrawal made an immense difference to the cluster’s upgrading initiatives since the leaders of ABIÇALCADOS had previously played a prominent role in controlling the cluster rather than promoting it. For the old leaders, keeping the status quo in the quasi-hierarchies was seen as the priority. This came out clearly from in-depth interviews with association officials and some business leaders.

Before we describe the variety of programmes sponsored by local trade associations, it is important to note that the most relevant associations are ABIÇALCADOS, ACI (the industrial-commercial association of Novo Hamburgo, capital of the Sinos Valley), AICSUL (the tanneries association), ASSINTECAL (the association of footwear input suppliers) and ABRAMEQ (the association of machinery producers).

Bazan and Schmitz (1997) have shown how these associations have played an important role in the cluster’s upgrading trajectory. In many respects this profusion of associations has been positive for the cluster. For example, by representing the interests of the different sectors, promoting and supporting them nationally and abroad, and bringing resources into the cluster, etc. However, it has also generated intense competition and differentiation into factions that look after their particular interests and have at times lost

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15 Elements of product and process upgrading are also present in these programmes but we have discussed elsewhere that the cluster is already considered to be a “top of the range” manufacturer, so this aspect is not so remarkable.
sight of the common interests of the cluster. Such differentiation has proved another formidable obstacle for collective initiatives towards functional upgrading in the cluster. In this context, the emergence of a new programme for the whole footwear value chain has not materialised. The origins of one of the most successful recent collective upgrading strategies in the cluster are in the failed attempts at the 'Calçado do Brasil' programme. Two of the trade associations involved at that time, ASSINTECAL and ABRAMEQ, prepared a new project aimed at creating a collective brand called 'BY BRASIL' and obtained funding from the Brazilian Federal Government through APEX (Brazilian export promotion programme). The agreement was signed in December 1999. According to this agreement, the Federal Agency would invest 5 million of Reais (US$ 2.8 million) and the two local associations would invest the same amount for the period up to 2002. In May 2000 the programme had reached 90 firms, most of whom were from the Sinos Valley. By 2003 this programme was still very active, and it was the inspiration for another new project called ‘Entrando em Cena’ (Entering in the Scene), product of a joint action between Assintecal and Asmevale, the local association for small firms. The project aims to help small firms to participate in fairs, providing them with support in areas such as marketing and managerial practices. In this project, small firms are supported not only by these two associations, but also by sponsor (or mentor) firms that are engaged with the project. In its first phase, the project involved 17 small firms that had participated for the first time in a major local fair. Another sign of the vitality of the By Brasil project is given by the current number of consortia among input suppliers (at least 5), in areas as production, exports, technology and so on. (ASSINTECAL, 2003).

There is also a generational renewal of leadership in most of the cluster associations. The generation identified with the quasi-hierarchical paradigm left when it was no longer necessary to control the trade associations. Once the conservative elements retired, input suppliers and machinery producers led the way for technological innovations and launched the cluster brand ‘BY BRASIL’ abroad. Due to their extensive experience in diversifying markets and customers (i.e. working for several value chains simultaneously), these two sectors have been at the forefront of the 'underground revolution', and far ahead of the majority of footwear producers. In the words of an ASSINTECAL official: “We want to be strong input suppliers within a strong Sinos Valley footwear industry. There is no point in us being strong and having a local footwear sector that is weak. But in order for us to be strong, we have to diversify and sell abroad”.

Other associations are working hard to establish their own APEX project. ABIÇALCADOS’s renewed leadership followed the example of the input suppliers and developed a new programme to obtain APEX support. This time, the project was submitted by ABIÇALCADOS and approved by the federal agency who agreed to invest 6 millions of Reais (US$ 3.1 million) while ABICALÇADOS invested 12 million of Reais (US$ 6.2 million). The project seeks to help Brazilian shoe producers explore new export markets by giving them specific training, supporting firms to participate in international fairs and showrooms and improving firms’ capabilities in areas such as technological development, quality assurance, productivity and design (Interview with an ABICALÇADOS official, 2000). At the time of our survey in 2000 the project was at an early stage but now it seems to be achieving its goals. Officially called PSI ‘Programa Setorial Integrado de Promoção das Exportações de Calçados’ (Integrated Sectoral Programme for the promotion of Footwear Exports), in less than two years, 180 new firms – most of them, small firms with no

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16 Perhaps the failed programme depicted by Schmitz (1998), ‘Calcado do Brasil’ was the closest the cluster has ever been to having an inclusive programme for the whole footwear value chain, it was designed by five local trade associations (footwear manufacturers, tanners, input suppliers, machine producers and export agents).
17 Exchange rate: Rs 1.92 = 1 USD in December 1999.
experience in the international market - began to export with the support of the PSI (according to specialised magazines). Moreover, the programme supports 8 different international missions of export firms and brought 104 potential external buyers to participate in 6 Brazilian fairs and showrooms. As in the case of the By Brasil, the APEX-ABICALÇADOS programme operates through a brand – ‘Calçado del Brazil’ or ‘Brazilian Footwear’ according to the market they are serving. As a result of such effort, the number of exporting firms increased in 23 per cent within a couple of years (Global 21, 2003). Even though those figures refer to the whole country, there is no doubt that the Sinos Valley has benefited from the PSI. However, it has to be said that despite these results, the PSI current projections for increments in exports are not being achieved. The global economic slowdown, intense competition and the overly optimistic expectations of Brazilian firms (considering their relative weakness) might provide some explanations for this failure (Interview with a trade association officer, 2003).

Another collective initiative comes from the group 'Shoes from Brazil'. It comprises a core of 11 traditionally domestic-oriented branded firms that are attempting to penetrate markets as distant as the Arab Emirates. This group of highly successful firms has increased their traditional presence in GDS (the most important trade fair for the European footwear industry, taking place twice a year in Germany), their presence at other fairs like the MICAM in Milan and also the Al Hida’a in the Arab Emirates. At the time of this survey, the group had joined forces with a Sao Paulo-based trade fair organiser (COUROMODA) and begun participating as exhibitors in several trade fairs worldwide. These initiatives are largely self-financed by firms that have decided to build their own private network.

Another group of eight firms has joined a consortium to maintain a showroom in New York. Inspired by these groups, in 2000, the local business association (ACI) started to develop its own APEX project aimed at helping 60 small and medium-sized domestic-oriented producers to participate in a similar showroom and, thus, enter in the external market with their own brand name. The strategy in this case was to take advantage of a market niche that is concentrated in higher quality fashion shoes sold by select boutiques in the US. However, it was perceived by some local groups that this project would compete with the APEX-ABICALÇADOS programme so ACI deflected its efforts in favour of another sector linked with the leather footwear value chain: the leather articles sector (Interview with a trade association officer, 2003).

As for governmental efforts to foster local private upgrading initiatives, Schmitz (1998) found they had been largely absent in the 1980s and 1990s. Again, this had changed by 2000. As well as the APEX initiatives funded by the federal government, the state government has provided direct support for small-sized firms. This support was structured in a programme called ‘Programme for the leather and footwear Value Chain of Rio Grande do Sul’. The programme comprises five major areas - improving quality of products and processes, commercial promotion, support to collective action as consortiums and cooperatives, subsidised credit and tributary incentives. The industrial extension centre is one of the main programme activities that help firms with process upgrading. There is also a Centre for Design and Innovation, consortia for collective purchasing of raw materials and other inputs, export consortia and institutional (and financial) support for participation in trade fairs. According to local producers and institutions, the most successful activity of the state government’s programme was support to participate in trade fairs. In 1999, with the joint support of the 'BY BRASIL' programme, 70 small and medium-sized input supplier firms participated in the Hong Kong input suppliers fair. The Brazilian collective stand in this

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18 By year 2000, Saudi Arabia alone consumed USD 600 million in footwear (Shoeinfonet 2000)
important Asian fair was a modest first step, but it encouraged new business for Brazilian smaller input suppliers from that year onwards.

By 2003, when updating this paper, we found that some of those activities had been stopped after a local electoral process that removed from power the party that had started these activities. However, even though current operations are more reactive than proactive, the current government keeps investing in the Centre for Design and Innovation and supporting small firms with credit facilities to participate in fairs and show rooms.

In short, changes at the top of the dominant value chain in the cluster triggered a series of reactions that loosened the ties down the chain. Combined with the determination to upgrade by a new generation of association and business leaders, it produced a series of initiatives aimed at repositioning the cluster in the world market.

7 Conclusion

The recent value chain literature suggests that chain governance structures the upgrading possibilities of local firms and clusters. This paper has examined this proposition by comparing the type of upgrading pursued and achieved by local firms supplying value chains that are governed in different ways. It also examines the interaction between global chain and local cluster governance, in order to identify the scope for local upgrading initiatives.

Our results show that the US value chain embodies the concept of a quasi-hierarchy, while Europe constitutes a more flexible version. The domestic market is characterised by market-based relationships and the Latin American market is a hybrid, i.e. quasi-hierarchical for unbranded producers using export agents and market–based for branded producers. Footwear producers operating in market-based value chains are more likely to achieve functional upgrading than producers in the tightly co-ordinated US quasi-hierarchy. Softer quasi-hierarchies such as the European value chain seem to be slightly less obtrusive for functional upgrading. Product and process upgrading are actively encouraged and supported by quasi-hierarchical buyers. Domestic-oriented firms pursued product and process upgrading strategies as well, but these were usually linked to their investments in functional upgrading.

The recent significant advances in functional upgrading in export markets have two explanations. First, prior 'apprenticeship' in the national market and, second, operating in several chains simultaneously. This mix of opportunities, combined with the producer's determination to upgrade appears to be the main factors explaining why some firms were able to progress into higher value added activities (functional upgrading). A good example of the advantages granted by this strategy of 'leveraging competencies', appears to be the head start input suppliers took in diversifying markets and customers, which increased their profile in international markets and made them less vulnerable.

At the cluster level, the emergence of a series of initiatives for collective upgrading seems to suggest that the loosening of vertical ties within global chains (due to increasingly volatile global conditions and local 'generalised competence') may have opened a window of opportunity for the repositioning of the cluster in world markets. When preparing this update of our 2000 paper, we could realise that the recent challenges and opportunities for the footwear sector in Brazil are not very different from the ones proposed in the first version of our paper. If anything, they seem to be more evident and the trends then described now seem to be part of the everyday life of local producers and other actors in the cluster and in the value chains they work for. The challenges (and opportunities) of functionally upgrading and diversifying markets in order to become competitive seem to be widely accepted.
Therefore, the main contributions of this paper are fourfold. First, the systematic and detailed comparison and analysis of the four main value chains present in the Sinos Valley, their governance patterns and the corresponding upgrading patterns. Second, highlighting the importance of learning in the national market, particularly for functional upgrading. Third, the analysis of the effect that working in several value chains simultaneously has for upgrading opportunities at the firm level. Finally, a more optimistic approach to the upgrading possibilities for local clusters working with a dominant quasi-hierarchical value chain is presented. In conclusion, the value chain perspective has proved valuable to explain how global events influence local individual and collective upgrading efforts within the Sinos Valley cluster.
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