Local Economic Development: Ball to the Global Value Chain?

Honours Bachelor Thesis

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INTRODUCTION

From the moment you wake up in the morning until you go to sleep at night, your life is affected by the products of Global Value Chains. As a matter of fact, even the bed you sleep in, will probably contain elements which have travelled thousands of miles before they became your bed. It is hardly surprising that Global Value Chains have raised the attentions from numerous researchers across the globe. Their conflicting insights and adverse ideas have resulted in an antagonistic disarray of theories, best practices, and solutions.

This paper illuminates that disarray by presenting a framework which envelops five dimensions every Global Value Chain exhibits. Each of these five dimensions are provided with means of qualification founded in theory. Furthermore, a Global Value Chain case study by the Organisation for Economic Co-operation and Development (OECD) is analysed based on the extent to which it features all the elements of the framework. Through literature research a qualification for the elements which are not featured in the OECD case study is made.

However, within the field Global Value Chain analysis, one important characteristic seems to remain unaddressed: the actors. Especially the actors at the local level are left out. Can we infer that Global Value Chains do not incorporate local actors? Or to formulate it differently, as the title suggests, is Local Economic Development the ball to the Global Value Chain? In the last section of this paper the multi-level, multi-actor model for Local Economic Development by Pennink (2014) is introduced. Further analysis focusses on how the concepts of the Global Value Chain and Local Economic Development are related.

However, this paper will start by examining the history of Global Value Chains, and more typically the attention the concept has been given within academia.

BRIEF HISTORY OF GLOBAL VALUE CHAINS

Global Value Chains have existed for many centuries now, even millennia. Arguably, the trade invested by Alexander the Great, the wealthy merchants of Persia in Biblical times, or the trade routes throughout the Roman empire are all perfect examples of Global Value Chains, existing more than two thousand years ago. The famous Silk Route formed a cultural and economic bridge between ancient Asia and Europe. (Keohane & Nye, 2000) The rise of the Italian trading cities at the end of the Dark Ages, or the notorious triangular trade by the Dutch during their golden age, are all epitomes of Global Value Chains avant le lettre. Merely broaching the history of the phenomenon, the focus here will lie on the theories surrounding the Global Value Chain.

As is innate in many areas in the field of international business studies, the study of Global Value Chains is an incremental process rather than a ripe, ready for use template. Distinctive for the Global Value Chain studies are the many different names theorists have given to a rather similar concept. In this section a chronological overview is presented, keeping in mind the existence of major overlaps between the subsequent theories.

The foundation which forms the base for the contemporary concepts was laid by Hopkins and Wallerstein (1977; 1986; 1994). They defined commodity chains, the first reference to what later became the Global Value Chain, as ".. a network of labour and production and processes whose end result is a finished commodity". (Hopkins & Wallerstein, 1986) The keen reader immediately noticed the lacking of a geographical consideration in Hopkins' and Wallersteins terminology. Gereffi, Korzeniewicz and Korzeniewicx (1994) were the pioneers here. They put the "global" in Global Commodity Chain, arguing that capitalism in those days already entailed the detailed disaggregation of stages of production and consumption across national boundaries, under the organisational structure of densely networked firms or enterprises. (Gereffi et al., 1994) However, the Global Commodity Chain typology was based on a static, empirically situated view of technology and barriers to entry, but both are dynamic because of technological change and both firm- and industry-level learning. (Sturgeon, 2008)

It was in the autumn of the year 2000 that a group of academics of like mind from different academic areas joined their forces and started to convene in order to build a theory which would both capture the dynamics of technological change and entry barriers as well as it would be a theory which could help policy makers explain and predict governance patterns and cross-border production networks. (Sturgeon, 2008) After this interdisciplinary group had landed its theories, they caught the attention of numerous other scientists, but in principle, it was all about that base. Gereffi and Kaplinsky (2001) presented the first product of this proven successful congregation: "The Value of Value Chains: Spreading the Gains from Globalisation" which was published by the Institute for Development Studies Bulletin. Effectively, this was where the term "Global Value Chain" was introduced. Three arguments were raised as to why the term "Commodity" was replaced by "Value". Firstly, the term "Commodity" is popularly connoted with undifferentiated products, such as iron ore or agricultural products, and therefore does not cover all the stages in the chain. Secondly, the term "Value" more sufficiently apprehends the concept of "value added", and therefore makes a better fit with the "Chain" metaphor. The third reason is basically explaining the second reason in more detail: Since Porter (1985) there had been a shift within international business theories towards the analysis of trade and industrial organisation as a value-added chain. (Backer & Miroudot, 2013) According to Bair (2005) the concept of the Global Value Chains is not that different from Global Commodity Chains, only in the sense that they are more ambitious in trying to capture the determinants of the organisation of global industries. However, the theory has been evolving ever since and the modern day perceptions of the Global Value Chain not even moderately resemble the first described Commodity Chains.

Interesting to notice is the recent shift away from the term "Chain" towards the term "Network".(Coe & Hess, 2007) This change in the metaphor highlights the complexity of the interactions among global producers: "economic processes must be conceptualised in terms of a complex circuitry with a multiplicity of linkages and feedback loops rather than just "simple" circuits or, even worse, linear flows" (Hudson,2004).

Alongside the ever continuing research into the Global Value Chain, different initiatives have risen over the course of the last decade. Theorists portray concepts such as "Global Production Networks", "Actor-Network Theory", "Embedded Networks", "Modular Production Networks", "Industrial Clusters" or even the French "Filière Approach". All of

these theories are designed in order to learn more about the same concepts. Theory building in this area seems to diverge from practice and theories will probably envelop until all connection with practical applications is lost and they seem "gossamer relics of the late night".

THEORETICAL FRAMEWORK

In order to shed light upon a phenomenon as broad as the Global Value Chain a framework needs to be developed. Several authors have tried to capture the essence of the Global Value Chain before, with different success. With the knowledge of today, it is the perspective of this paper that it is nearly impossible to generate a framework which truly encapsulates the Kafkaesque cacophonies that Global Value Chains are. The reasons are twofold: On the one hand the area of Global Value Chain research has tried to incorporate almost every industry. The dissimilarities caused by this zeal have caused a very diverse spectrum of different Global Value Chains, all comprising different aspects. On the other hand, as previously discussed: the dynamics involved with Global Value Chain Research. There is no static viewpoint, which obstructs the generation of more or less generic theory building.

Even though this paper acknowledges the facts presented above, it will endeavour to establish a framework which can aid in measuring certain characteristics of every Global Value Chain. The only possible way to arrive at such a framework is by studying the work of many authors and synergising their contributions, by using new insights and theories. The rest of this section will feature the framework which will be the base for further investigation in this paper.

One of the pioneers in Global Value Chain research, and arguably the contemporary expert in the field, Gary Gereffi, has made several attempts into capturing the essence of the Global Value Chain within a framework. Analysing the concept of Global Value Chains without studying his work first would be like enacting Shakespeare's Hamlet without the Prince of Denmark. This "Doktorvater of Global Chains'" efforts as well as contributions from Fernandez-Stark, Humphrey & Schmitz, and Stallings form the foundations of this model.

Input-Output Structure

The first of the five dimensions within this framework is referred to as the input/output structure. This dimension views the Global Value Chain as "A value-added chain of products, services, and resources linked together across a range of relevant industries." (Gereffi, 1995). Two loci of analysis exists within this dimension: on the one hand it is key to identify the main activities and segments in a Global Value Chain, and one the other hand to identify the dynamic and structure of companies under each segment of the value chain. (Gereffi &

Fernandez-Stark, 2011). The main segments within the Global Value Chain vary, but typically include: Research and Development, Inputs, Production, Distribution, Marketing, Sales, and in many cases even Recycling. All of these segments can be grouped within a company, or dispersed across different companies in the Global Value Chain. It is even possible that one segment is a joint operation of several companies.

However, through the aforementioned shift away from commodity towards value in the terminology and the dimension described in the previous section, the locus of analysis also shifts. Commodities are not separately analysed. Consequently, the smallholders who are largely active in this link of the chain do not gain attention in Global Value Chain analysis. This is where Global Value Chain analysis starts to diverge from Local Economic Development. Arguably, by replacing commodity with value, we win some and we loose some.

When identifying the input/output structure of a Global Value Chain it is interesting to look at the upstreamness of the chain. In other words, following the chain metaphor, how many links are there in the chain? This concept is referred to as Average Propagation Length (APL) by Dietzenbacher and Romero (2007). They have developed a method to calculate the length of the Global Value Chain. However, within this context a less extensive method is chosen, introduced by Fally (2012) and Antràs, Chor, Fally and Hilberry (2012). They have used data from the OECD and specifically from their ICIO (Inter-Country Input-Outpunt) database to calculate a value about the upstreamness of a Global Value Chain. In order to do so an index is determined based on the industries which are a part of that specific Global Value Chain and the countries in which it operates. "The index takes the value of 1 if there is a single production stage in the final industry and its value increases when inputs from the same industry or other industries are used, with a weighted average of the length of the production involved in these sectors." (Backer & Miroudot, 2012)

Geographic Scope
The geographic scope of any Global Value Chain seems to be a relatively easy element at first sight. The "Global" in the term refers to a world-wide geographic scope, activities across the entire world, and one market. However, does this hold? Several factors lead to believe that Global Value Chains are not as global, in all the aspects of the term, as one might expect. In their article "How global are GVCs? A new approach to measure international

fragmentation." Los, Timmer and De Vries describe how production processes are more and more split into separate activities and that countries specialise more and more in particular stages of production. They conclude that Global Value Chains finally are becoming truly global, possibly propelled by the financial crisis. (Los, Timmer, De Vries, 2014) However, other authors have concluded otherwise. Sturgeon, Van Biesebroeck, and Gereffi (2008) argue that, at least in the car industry, the trend is to keep the production as close to the end-market as possible. New evidence suggests that there may be a trend toward a regionalization of Global Value Chains triggered by a variety of stimuli; the increasing importance of large emerging economies and regional trade agreements among others. (Gereffi & Fernandez-Stark, 2011)

As it turns out, there is much debate about the extent to which Global Value Chains are truly global. Global Value Chains can have local, regional, national, and global elements. Following Gereffi, Humphrey, Kaplinksy and Sturgeon (2001) the following qualifications were adopted. The term international is used for Global Value Chains which operate in more than one country. The term supranational is used to describe Global Value Chains which operate in one trade bloc. Truly Global Value Chains are the ones which operate in more than one regional trade bloc. (Gereffi et al., 2001)

Governance

The third dimension in this framework is governance. Governance, according to Altenburg, Dietz, Nikolikidas, Rosendahl, and Seelige (2009), is broader than just government, it deals with cooperation between all the stakeholders. Gereffi (1994) described governance within the context of Global Value Chains as authority and power relationships that determine how financial, material, and human resources are allocated and flow within the chain. But how about the less powerful within the chain? Their position within the chain is underexposed in the context of Global Value Chain analysis. The focus on locus of power causes the effect that not *all* stakeholders are involved, as Altenburg et al. (2009) suggest.

Initially, researchers had only identified two governance structures of Global Value Chains; buyer-driven and producer-driven. (Gereffi, 1994). Buyer-driven Value Chains exhibit a powerful role of large retailers and highly successfully branded merchandisers, who require the suppliers to deliver up to certain standards for a certain price. Producer-driven Global Value Chains represent the other side of the spectrum in which producers have the most

power. These Chains will be more vertically integrated as producers leverage their technological and scale advantages.

Even though the distinction between a buyer-driven or a producer-driven Global Value Chain may seem very useful, there is more than at first meets the eye. Further research indicated that more variables influence the governance structure of the Chains. Three variables were found that together define which type of governance structure would appear: the complexity of information between actors in the chain, the ability to codify said information, and the level of capabilities in the supply-base. The combination of either a high or a low score on the combination of these variables determines whether the Global Value Chain is governed by one of the following five types: markets, modular, relational, captive, and hierarchy. (Gereffi, Humphrey, & Sturgeon, 2005; Frederick & Gereffi, 2009). Important to notice however is that the three variables are drawn from actual case research whereas the five types of governances are ideals.(Sturgeon, 2008) The next section will explain these five types of governance structures.

Market governance occurs when the complexity of the transactions is very low, firms have high abilities to codify and the suppliers have high capabilities. In the market there is only one major power: price. Price determines which products are bought and to whom. Essential are the low switching costs for both partners.

A modular governance pattern will appear when there are highly complex transactions, but firms have the ability to codify those. The capabilities in the supply-base are high in modular governance systems alike. The capable suppliers are able to make products to a customer's specifications and take the full responsibility for process technology using generic technology which spreads investments across a wide customer base. The linkages within the Global Value Chain are more substantial than in the market because of the high amount of information exchanged between the firms.

Relational governance occurs when the transactions are complex and the capabilities in the supply-base are high, but the ability to codify the complex transactions is low. This often results in mutual dependence and high asset specificity, which can be managed through reputation, or family and ethnic ties. (Gereffi & al., 2005) It is argued by many authors that spatial proximity is key in the relational governance type. However, trust and reputation can function as a proxy. (Menkhoff, 1992)

Captive value chains are associated with highly complex transactions, a high ability to codify said transactions, but a low capability in the supply base. Small suppliers are dependent on one or a few buyers that often wield a great deal of power, therefore such chains are often associated with a high degree of monitoring and control by the lead firm. (Gereffi & Fernandez-Stark, 2011)

The last type of governance within Global Value Chains is called hierarchy. A hierarchical chain features a high complexity of transactions, a low ability to codify those transactions and low capabilities in the supply-base. Characteristic for this type of governance is vertical integration. The dominant form of governance is managerial control.

As all five types of governance are explained, it remains important to realise that they merely are archetypes. Furthermore, changes in one or more of the three variables influence the type of governance, those are not static. For example, if competent suppliers could not be found, captive networks and even vertical integration became more prevalent. Conversely, rising supplier competence tended to push captive governance more toward the relational type. (Sturgeon, 2008)

Institutional Context

The penultimate dimension of this framework is the institutional context. Institutions have been conceived of very broadly. One extreme examines institutions as bureaucratic organisations with payrolls and physical addresses, including government agencies and NGOs such as multinational agencies, industry organisations, labour unions and lobby groups. (Sturgeon, 2008) The other extreme view shows institutions as the rules of the game. "…institutions structure incentives in human exchange, whether political, social, or economic…" (North, 1990). Bair (2005) emphasises the serious influence institutions have on the nature of Global Value Chains. The new areas added to the European Union, the founding of the North American Trade Organisation (NAFTA), or China joining the WTO are all clear examples of ongoing trends within institutions which impact Global Value Chains, or as North (1990) puts it: "The differential performance of economies over time is fundamentally influenced by the way institutions evolve". "At the firm level, routines of interaction between suppliers and lead firms can be deeply rooted in domestic and even local institutions and

culture, and often structure firm-level Global Value Chain governance in an ongoing manner." (Sturgeon, 2007)

As previously mentioned, institutions can be classified in three categories: economic, social, and political. These factors influence the Global Value Chain in numerous ways. In order to determine the influence of institutions on a specific Global Value Chain, the factors are presented with their main elements next. The economic factors measure to what extent the key resources are available. The costs of labour, the presence of relevant infrastructure, and the financial system are indicators of the degree to which key inputs are available. Social institutions include culture, historical and social beliefs, religion, but also access to education and healthcare. Political institutions include, among others, regulations, subsidies and the innovation climate. All of these three factors have an impact on the shape of a Global Value Chain.

Upgrading

Whereas the previous dimensions of our framework are to a certain extent derived from the work of Gereffi and Fernandez-Stark (2011), upgrading was not a part of their Global Value Chain analysis primer. However, numerous studies have proven the importance of upgrading as a major dimension within the Global Value Chain. "Contra the macro and holistic perspective of the world-systems approach, much of the recent chain literature is increasingly oriented in its analytical approach towards the meso level of sectorial logistics and the micro level objective of industrial upgrading." (Bair, 2005). Upgrading in the context of Global Value Chains refers to ways in which all actors can gain higher and more stable returns. (Gibbon & Ponte, 2005). To enable the actors to remain profitable under the high competitive pressure they face, they should develop their skill content or move into market niches. (Humphrey & Schmitz, 2002). According to Gerreffi (1999)| upgrading within the Global Value Chain is a combination of "learning by exporting" and "organizational succession". Either way, upgrading refers to a process of organisational learning to advance their position within the Global Value Chain. (Gereffi & Tam, 1998).

Four different types of upgrading are identified, the first three (process, product, and functional upgrading) by Gereffi (1999) where Humprhey and Schmitz (2002) added a fourth type (inter-sectoral, or inter-chain upgrading). *Process upgrading* refers to the extent that local suppliers can learn from global buyers within their Global Value Chain. Quality

standards imposed by the buyer as well as desired response times are areas at which the processes can be improved. *Product upgrading* is attributed to what Gereffi (1999) calls "organisational succession" When a producer has successfully mastered the production for the low end of the market it may be able to shift into more sophisticated products. *Functional upgrading* is about improving the skill content of the activities. "… the process of acquiring functions which generate higher incomes (and, conversely, ceasing to perform low-income activities) is potentially a critical part of an upgrading strategy." (Humphrey & Schmitz, 2002) The last type of upgrading is *inter-sectoral upgrading*. It involves upgrading throughout the Global Supply Chain. Several firms within the chain will move into new production activities. An example would be a Global Value Chain specialised in the production of television which uses their shared knowledge to start making computer monitors. (Humphrey & Schmitz, 2002)

THE NUTELLA CASE STUDY

The case study assessed in the next section is based on research at Nutella. Nutella is a pa product produced by the Ferrero Group. The case study focusses on the Nutella Global Value Chain independently from the Ferrero Group. Nutella is a famous hazelnut and cacao spread sold in 75 countries. Nutella is active in the food- and agricultural industries, or so called agri-food industry. The Organisation for Economic Co-operation and Development has prepared an analysis of Nutella's Global Value Chain, in their 2012 report "Mapping Global Value Chains". The following section will aim to assess how the Nutella Global Value Chain refers to the five distinctive elements of the framework and whether the OECD has included relevant information about all the aspects in the framework in their analysis.

Input-Output Structure Nutella

Not surprisingly since the measure of upstreamness used here is based on the OECD ICIO data, the Nutella analysis covers this concept extensively. As mentioned before, Nutella is representative for the Food and Agriculture industries. Global Value Chains within these industries are relatively long, especially when breeding animals upstream and hotels and restaurants downstream are involved. (Backer & Miroudot, 2013) Both qualifications apply to the Nutella Global Value Chain. Even though hotels may not be Nutella's main customers, they are a part of the client base. The same goes for milk, it is not the main ingredient, but the production of Nutella is impossible without it. The actors involved in supplying these crucial ingredients are conspicuous by their absence.

It can be concluded that Global Value Chains are relatively long in the food and agricultural industries. The other element of the index refers to countries. Because many countries are involved, the Global Value Chain becomes longer. Overall, the Nutella Global Value Chain appears to be long because it is part of the food and agricultural industries, and within these industries the Nutella chain is one of the longest, because the many international layers involved.

Geographic scope Nutella

The authors at the OECD pay tremendous attention to the geographic scope of the Nutella Global Value Chain in their case study.

Nutella, as a part of the Ferrero Group, is headquartered in Italy. However, their Global Value Chain stretches out over 75 countries. Nutella has production facilities on five of the seven continents (five in Europe, one in Russia, one in North-America, two in South-America, and one in Australia). Some inputs into the chain however are locally supplied, for several reasons. Milk for example cannot be conserved too long. Other inputs are sourced globally, for example all the hazelnuts are cultivated in Turkey, the cacao, which is such a crucial ingredient, is only produced in Nigeria, the vanilla flavour is from France, and the sugar is produced in Brazil. Apart from the geographic scope of the production, the OECD considers other business segments' geographic scope. Nutella has sales offices in 75 countries around the world. Furthermore, through retailers and wholesalers, the Nutella product is sold in nearly every country in the world.

It is clear that the geographic scope of Nutella entails the entire world. It has operations along different segments in more than one regional trade bloc. Following the geographic scope dimension in the developed framework we can conclude that Nutella has a truly Global Value Chain.

Governance Nutella

The authors at the OECD do not mention anything about the governance within Nutella's Global Value Chain. However, several other authors have investigated governance within the food and agricultural sectors. Their research will be used to try and make assumptions about Nutella and the governance structure of its Global Value Chain.

Reardon and Timmer (2007) have described how the agri-food industry is gradually becoming more structured around food processors and retailers as dominant players within the Global Value Chain. Supermarkets cooperate with importers and exporters both and want to influence the growing and harvesting processes. High quality levels in order to meet food safety-standards and the demands of end-users require control in every link of the Global Value Chain. This can only be accomplished through vertical integration. (Reardon & Timmer, 2007). Burch and Lawrence (2007) identified the ways in which supermarkets have

become the most powerful players within Global Value Chains, taking the spot previously occupied by manufactures of branded goods, like Nutella. A disproportionately low number of companies dominate the Global Value Chains within the agri-food industry, linking the small producers in both developing and developed countries to global consumers. (Gereffi & Lee, 2009)

Gereffi et al. (2005) have identified the same shift when the analysed the trade in fresh vegetables between the United Kingdom and Kenya. Before the recent shifts within governance, the trade was dominated by so called arm's length market transactions. Price was the dominant power and the market governance form from the framework applied. However, the trends explained earlier did not ignore the fresh vegetable trade between the United Kingdom and Kenya. Driven by an "…increasingly complex regulatory environment related to food safety, particularly pesticide residues and conditions for post-harvest processing, as well as environmental and labor standards" (Gereffi et al., 2005) supermarkets increasingly exercised explicit coordination. Rather than buying on the market or through wholesalers, they developed long-lasting and exclusive relations with importers. Further upstream, the same trend occurred. Kenyan exporters established continuing relations with British importers. Arguably, this shift toward more powerful exporters and/or importers reduces the power of the smallholders. The concentration of the exporters has made them a more dominant factor in the local market, at the expense of the smallholders.
Overall, the governance structure within this Global Value Chain evaluated from a market structure towards a relational structure.

With respect to the previously explained case study and the work of Burch and Lawrence, it can be assumed that the Nutella Global Value Chain demonstrates a relational governance structure.

Institutional Context Nutella
In the case study by the OECD, no time was spent establishing the institutional context in which Nutella operates. However, this does most certainly not mean that Nutella's institutional context does not exist or is not relevant. To contextualize the institutions which shape Nutella's habitat, the work from other authors was examined.

The institutions which shape the economic context of any company are manifold. When a company decides to expend its activities abroad, like Nutella, it has to contend an even larger plethora of institutions. The availability of certain resources like vanilla or cacao requires Nutella's presence globally. The different labour costs in the numerous countries and the gigantic infrastructure which is needed to produce a product with such diversely sourced ingredients and with such an extensive distribution channel are perfect examples of how Nutella's day-to-day operations are extremely complicated by economic institutions. Another recent example is the hazelnut crop failure in 2014 due to a cold March in Turkey. Hazelnut prices reportedly spiked at 60%. Such draconic shifts in the prices of key resources are a major inconvenience for Nutella.

The social context Nutella is operating in is to a large extent shaped by increasing health concerns. Numerous lawsuits have been filed by a whole spectrum of health agencies and children's rights advocates. In the case of Hohenberg vs. Ferrero USA Inc. the California district court ruled in favour of two mothers who claimed that Nutella contained dangerous levels of saturated fat, the consumption of which has been shown to cause heart disease and other serious health problems, and over 55% of processed sugar, which can cause type 2 diabetes and other health issues. Therefore, Nutella is not allowed to label itself as a healthy or nutritious product and cannot claim to be part of a balanced breakfast. Similar cases can be found in other countries, for example Germany (Carreño, 2012). The shifting public opinion in these areas poses a challenge for a brand like Nutella.

The political institutional context in the food and agricultural industries is shaped by both governmental and non-governmental organisations (NGOs). An example of a relevant governmental organisation is the FDA (Food and Drug Administration) in the United States. Other countries have similar institution which are responsible for promoting and protecting public health by setting quality standards and regulations and regularly assessing them. Nutella has to oblige to rules these agencies implement, when Nutella fails to meet the standards it can be temporarily removed from the shelves or ultimately banned from a country. Non-governmental organisations which have a severe influence on a brand like Nutella are for example fair trade organisations and organisations promoting responsible sourcing. Not being able to confirm to the standards set by such organisations is a major competitive disadvantage.

Notwithstanding the lack of attention which is given to this subject in the case study, we can conclude that Nutella is undoubtedly facing pressure from a plethora of institutions.

Upgrading

In order to remain competitive it is key to upgrade constantly. Nutella uses upgrading in several ways, of which one is described in the case study. The four different types of upgrading as identified earlier will be discussed.

Process upgrading refers to the extent suppliers can learn from the global buyers. In the case of Nutella, this is a rather opaque process. However, we can assume that Nutella will aid their suppliers in producing in the best possible way. The aforementioned shift towards sustainable production can only be maintained when all the linkages in the chain comply themselves to those standards. Furthermore, if Nutella enables local farmers to produce more efficiently, it benefits for both parties can be reaped.

Product Upgrading is characterised by a shift into more sophisticated products. The case of Nutella exhibits such a shift. When the factory in Villers-Écalles was first opened, they only produced traditional jars of Nutella. However, another source of revenue has been developed in the last decade. Currently, the Villers-Écalles factory does not only produce Nutella, but also the Kinder Bueno candy bars. These bars contain almost the same ingredients as Nutella and therefore both the different products are easily produced abreast.

Functional upgrading refers to a shift into production which requires a higher skill content and functions which generate higher incomes. This is a type of upgrading which is not very common in the food industry. With the current information no examples of functional upgrading at Nutella could be found.

Inter-sectoral upgrading refers to a process in which several firms within a Global Value Chain move into new activities. It is highly unlikely that a brand like Nutella will suddenly engage in such a move. Nutella is a strong brand with a strong product, therefore no sudden movements into a completely different direction are to be expected.

In all the types of upgrading identified at Nutella and in the framework for Global Value Chain analysis, no evidence was found of upgrading processes in which every actor, including the smallholders could profit from the upgrading.

Conclusion

The case study of Nutella at hand, performed by Backer and Miroudot with the OECD in 2013, demonstrates several dimensions of Nutella's Global Value Chain. It illuminates the input/output structure and the geographic scope of the Nutella Global Value Chain in detail. However, it does not encapsulate any analysis of the governance structure of the chain, the institutional context in which it is situated or the extent to which the several types of upgrading are present. Striking is withal the lack of attention given to smaller, less powerful actors within the Global Value Chain.

PENNINK'S MULTI-LEVEL, MULTI-ACTOR MODEL

Whereas the previous section has extensively discussed the different levels of the Global Value Chain, there was no substantive attention given to the actors within the chain. All the different levels entail different actors. To multitude of companies included in the chain, the people who work in those companies, or the owners of the resources are all important actors who did not receive attention in the previous section. The adopted economic approach does not validate the influence of actors in all parts of the chain. The multi-level, multi-actor model by Pennink (2014) adopts a social-economic approach. Therefore, especially the position of smallholders, actors whose contribution is remarkably neglected in most of the Global Value Chain literature, is examined in Pennink's model.

In the following section the multi-level, multi-actor model by Pennink (2014) will be examined. This model describes the dimensions of Local Economic Development on the macro, meso, and micro levels. Local Economic Development, or LED, is defined by Canzanelli (2001) as a process in which local stakeholders work closely together to stimulate and facilitate partnerships, enabling the implementation of jointly designed strategies in order to shape and share a more profitable future of their region. Global Value Chain analysis can provide a holistic view of global industries, both from the bottom up and from the top down. (Gereffi & Fernandez-Stark, 2011) The multi-level, multi-actor model by Pennink (2014), whilst taking a bottom up perspective, tries to determine what the influence of the Global Value Chain will be on the different levels and how this knowledge can be employed to promote Local Economic Development. It uses the Global Value Chain as a means to an end rather than analysing the Global Value Chain as such. The bottom up perspective focusses on the different strategies used by countries, regions, and other economic stakeholders to advance their relative positions in the global market. (Gereffi & Fernandez-Stark, 2011) Taking a different perspective than the proposed framework in this paper, it is interesting to examine to what extent Pennink's multi-level, multi-actor model (2014) enables the examination of the five distinctive elements in this framework.

Input-Output Structure

Input-output structure does not receive any attention at all within the multi-level, multi-actor model. With its focus on Local Economic Development, the model explicitly does not provide space for the analysis of the average propagation length. Downstreamness, in this model, has

been defeated by Upstreamness. The multi-level, multi-actor classification appears to be promoting the input-output structure as a main element at first glance. However, the different actors refer mainly to horizontally different actors, whereas the multi-level element refers to the geographic scope.

Geographic Scope

Accordingly, the geographic scope, the second element of this framework, is featured prominently within Pennink's model. However, it takes quite the different perspective. The proposed framework for Global Value Chain analysis, starts at the international level. From that point two different, "more global" qualifications are used: supranational and truly global. Pennink's model includes a local, regional, and national level, crested by the international level. The fact that both frameworks adopt a different perspective with regard to this dimension had already been established. However, every Global Value Chain has a local base and an international extreme. Exemplary for this spectrum is the Nutella case. Even though it was established that Nutella's Global Value Chain qualifies as truly global within our framework, it still has a local supply base. The hazelnut farmers in Turkey or the suppliers of cacao from Nigeria are perfect examples here. Whether the internationalisation or the local perspective is taken depends on the goal of the analysis.

The model by Pennink adds new dimensions to the framework. The "forgotten" local actors and the different players constituting the regional and national situation where not examined in the framework. The multi-level, multi-actor model concurs with recent trends in Global Value Chain analysis. The aforementioned shift from the macro to the meso and micro levels of analysis and the rise of the regionalisation of GVCs perfectly fit within Pennink's model.

Governance

The multi-actor, multi-level model mentions several relevant governance questions, but it does not formulate an answer to them. Questions like "are parties organised only in parts of the chain, or over the entire chain?" "What can the consequences of vertical and horizontal integration be and who dominates these processes?" are posed. Furthermore it mentions how coordination mechanisms, for example within a chain and between chains, are interesting to research.

Overall, that is the main goal of this article, especially in the field of governance: providing a framework in which interesting questions for future research appear. The relations which are described in the model are all influenced by a certain degree and type of governance. The five different types of governance and their relevant indicators as identified in this framework can be used to predict governance relations within the multi-level, multi-actor model.

Institutional Context

The institutional context is pivotal in the multi-level, multi-actor model. Tremendous attention is given to the institutional context on three different levels: local, regional, and national.

Pennink has experienced the significance of locals as actors within the Global Value Chain himself during many years of research. (Pennink, 2014) Social capital (Pennink 2011) refers to the state of the art at the group level and characteristics of the resources for producing. In the framework, social capital would be a part of the economic institutional context: it measures the availability of the key resources. In the intervening variable zone of Pennink's model the following factors are present: Human coordination of entrepreneurial activities, empowerment, entrepreneurial activities, and local leaders. These factors refer to the concept of social institutional context within the framework. The last dimension of the institutional context in our framework are political institutions. In the multi-level, multi-actor model they are represented at the local level by the role of outside actors.

The institutional context on the regional level is based on the regional economic development model by Stimson, Stough, and Salazar (2009). They have identified four factors which shape the context. The first variable shows resource endowments and market conditions, or REM, which are present in the region. This variable can be easily linked to the term economic institutions, as used in our framework. The next variable is twofold; leadership and entrepreneurship are closely related but not the same. "Leadership can be performed by an individual but, in the case of regional economic development, is more likely to be the expression of the collective action of a society or a group of people." (Pennink, 2014) Following this logic, leadership and entrepreneurship are a part of the social institutions within our framework. The next variable identified by Stimson is institutions. Whereas it is rather confusing to use the term institutions for a phenomenon which is more broadly defined an umbrella for the other three variables, Stimson's definition of institutions concurs with our definition of political institutional context.

The institutional context on the national and international level is explained by the triple helix model. Etzokwitz and Leydesdorff (1995) have highlighted the importance of the transformation of the role of the state in academia, the role of the corporations in innovations, and the role of the university in the economy. These interrelated institutes together form the triple helix. Within our dimension of institutional context, the corporations are a part of the economic instutions. They provide the key resources. The universities are part of the social context, forming values and beliefs but also considering the availability of education and health care. The state, as always, is part of the political institutional context.

In conclusion, on one of the most important dimensions within the multi-level, multi-actor model, there are numerous similarities between this model and our framework.

Upgrading

The most pivotal dimension in the multi-level, multi-actor model is obviously upgrading. The Global Value Chain analysis is in this model subordinate to the larger goal: improve Local Economic Development. However, the four types of upgrading used in our framework do not capture the essence of Local Economic Development. Process upgrading, product upgrading, and functional upgrading all can be a part of Local Economic Development, but do not measure the item in question. Inter-sectoral upgrading seems to be the most appropriate type of upgrading to classify Local Economic Development. However, inter-sectoral upgrading does not exhibit a particular focus on the local level, on the contrary, and Local Economic Development does not necessarily involve upgrading within the more downstream links of the chain.

To capture the essence of Local Economic Development and the multi-level, multi-actor model, another type of upgrading has to be identified. Laven (2010) had described a new type of upgrading, fitting with the Local Economic Development which is key in Pennink's model: inclusive upgrading. Whereas most literature still focuses on the insertion of the poor in Global Value Chains, this does not necessarily provide the needed elements for upgrading. Power asymmetry within Global Value Chains can enable or hinder upgrading for the least powerful actors. Their gains from upgrading can be marginal, or even non-existent. (Gibbon & Ponte, 2005) Inclusive upgrading, according to Laven (2010) includes three types of impacts: "raising competitiveness and adding value", "remunerative income", and

"empowerment". These three elements together contribute to the level of inclusiveness of the upgrading within a Global Value Chain.

Inclusive upgrading is almost synonymous for the Local Economic Development which Pennink promotes. Influenced by current trends on Corporate Social Responsibility, arguably inclusive upgrading aggregates importance. The four types of upgrading identified in our framework are very likely to be complimented by inclusive upgrading as a fifth type.

Conclusion

The multi-level, multi-actor model by Pennink (2014) aims to "determine what will be the effect if, at the local level, an entrepreneurial group intends to produce a good and will attempt to export this to another continent, and vice versa, if an MNC desires to buy products from local markets." Recapitulatory: how does inclusion in the Global Value Chain influence the different actors. The main goal of this model is to use this information to improve Local Economic Development. Pennink's work does not allow for the analysis of all the identified critical dimensions, and it was not intended to do so. However, it does highlight the two most important dimensions in this line of research: the institutional context and upgrading.

Furthermore, the framework proposed in this paper does not allow the full integration of the two concepts Local Economic Development and the Global Value Chain. Future research has to determine whether inclusive upgrading can be the factor connecting these two principles.

CONLUSION

Based on the analysis of the Nutella case study and several other Global Value Chain case studies (The automotive industry by Sturgeon et al. (2008), the Apple Iphone (Kraemer, Linden & Dedrick, 2011), the apparel industry (Gereffi, 1999), the fresh vegetables chain (Gereffi et al., 2005), and many others) it can be concluded that authors, much like in the Nutella case study, take a limited perspective when analysing a Global Value Chain. Usually authors will merely focus on one or two of the five identified critical dimensions in Global Value Chain analysis. As sure as Kilimanjaro, like Olympus, rises above the Serengeti, does every Global Value Chain exhibit the five dimensions, but no case studies have been found to analyse all of them.

The suspected reasons for this peculiar lack of all-embracing case studies can be manifold. The extensive research needed to perform such a comprehensive analysis will consume numerous resources. When an analysis is performed in order to solve a problem, only the area in which the problem occurred will be researched. But most importantly, as mentioned before, the area of Global Value Chain analysis is interdisciplinary. Every author has his own expertise and consequentially his own focus and point of view when performing a Global Value Chain analysis. Researchers from the field of Supply Chain Management will more likely focus on the input-output structure than on the institutional context. Researchers from the field of Globalisation are more likely to focus on the geographical context as their main research question than on the extent to which the different types of upgrading appear in the chain. When a researcher from the field of Local Economic Development analyses a Global Value Chain, he will elaborately illuminate the institutional context and upgrading, but will not be interested in the input-output structure.

Exemplary for the last type of research is the multi-actor, multi-level model as developed by Pennink (2014). Even though it does not allow for the analysis of a Global Value Chain on all the identified critical dimensions, it does embrace the two most relevant dimensions to its goal: improving Local Economic Development. Local Economic Development and the Global Value Chain therefore do not resemble the ball and chain metaphor. When the two concepts are used together, a synergetic reaction appears.

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