



UvA-DARE (Digital Academic Repository)

Global trade & the Dutch hub: understanding variegated forms of embeddedness of international trade in the Netherlands: clothing, flowers, and high-tech products

Levelt, M.

Publication date
2010

[Link to publication](#)

Citation for published version (APA):

Levelt, M. (2010). *Global trade & the Dutch hub: understanding variegated forms of embeddedness of international trade in the Netherlands: clothing, flowers, and high-tech products*. Uitgeverij BOXPress.

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.



A framework to analyze nodes of international trade

Local production systems,
value chains, and territorialization

'The fortunes of regions are shaped not only by what is going on within them, but also through wider sets of relations of control and dependency, of competition and markets.' (Coe et al., 2004)

As we have seen in Chapter 1, there are three main types of trade nodes. In this chapter the processes will be described that geographically embed these nodes. The processes that are of importance for the geographical embedding of trade as a matter of fact not only differ with type of node but also with type of product and value chain organization. This will be explained in this chapter.

Different types of products and trade nodes involve different types of trade activities and therefore require different assets. In a market-place node, assets related to the market place itself are important, for example the assortment of goods available. In a distribution node, assets related to distribution, such as physical infrastructure and logistic knowledge and regulation seem to be more important. In the case of a trade-network node, assets related to the traders in the node, such as their knowledge of markets, seem to be more important to embed trade geographically to a specific place. At the same time different types of products will probably depend on different aspects of a specific trade node. For some products it is important that a trade node enables markets to find each other, where for other products the main role of a trade node seems to be the ability to handle fluctuations in supply and demand. This also influences the assets that are needed. Understanding the assets needed for trade is important since the geographical embedding of trade activities to a specific place depends on how unique these assets are. When assets are very unique to a specific place as the result of place-specific mechanisms, relations, and developments they become *territorialized* (Storper,

1997) and therefore hard to imitate elsewhere. Competition on territorialized assets can be seen as a strong competitive strategy since it involves competition on highly immobile production factors. At the level of the local production system itself, the development of scale economies, processes of knowledge development, or direct investment in infrastructure may create such territorialized assets. At the level of the national state, infrastructural investment as well as legislation and its effects can create place specific, but often less territorialized assets as far as they are easily imitated elsewhere. In addition, supranational bodies such as the EU can influence assets of specific places through actions like the creation of a common market. Only certain assets are very country-specific and therefore difficult to emulate elsewhere; in this sense we would deem them territorialized.

Also the organization of the value chain influences the geographical embedding of trade activities. When trust and common understanding (conventions, institutions, tacit knowledge) play an important role in the trade-transaction in a value chain, trade may be much stronger related to specific traders, and through them to specific places, than in cases where pure market relations exist. Also investments made in equipment and personnel when a hierarchic organization is at stake, might increase the geographic embedding of trade.

The organization of this chapter is as follows. First I will turn to the nature of trade activities and the kind of activities and services that are involved in trade (section 2.2). I then turn to the role of trade: what different roles can trade play depending on product and market characteristics? Does this also mean that different activities and services are performed in different situations? And when are coordination and control functions part of trade (Section 2.3)? After that, I will delve into the aforementioned mechanisms that geographically embed trade activities: characteristics and assets of local production systems and the relation they have with other levels such as national and supranational institutions that create and enhance the territorialization of asset, or on the contrary can make them obsolete (Sections 2.4 and 2.5). Thereafter I will address the issue of the governance characteristics of wholesale trade in global value chains (Section 2.6). In the last Section (2.7) I will come back to the research questions and formulate the main hypotheses this research start with based on theoretical grounds. But before that, section 2.1 starts with a discussion of the global value chain concept that is much used in this chapter.

2.1 Global Value Chains

In this research the concept of the value chain helps us understand international trade activities and their attachment to specific places. This is done not only from a local or

national perspective, but also internationally to show relationships with economic actors at different scales. In the words of Henderson et al. (Henderson et al., 2002, p. 438)

“In order to understand the dynamics of development in a given place, [...], we must comprehend how places are being transformed by flows of capital, labour, knowledge, power etc. and how, at the same time, places (or more specifically their institutional and social fabrics) are transforming these flows as they locate in place specific domains.”

As global value chains, consisting of flows of goods, capital, knowledge and power, transect the Dutch trade hub, an understanding of these flows and their interaction with the trade hub will help to understand the development of this hub.

The global value chain concept used in this research is based on Gary Gereffi and others (Gereffi, 1994, Gereffi et al., 2005, Sturgeon, 2003) and the work of Henderson et al. (2002) on global production networks. The value chain concept was developed in response to dissatisfaction with the commodity chain concept, yet is still closely related to it. Both concepts describe global industrial structure and focus on how regions and businesses are internationally connected to each other. The global commodity chain approach analyzes all portions of the chain, from basic resources to end products; it consists of *‘sets of interorganizational networks clustered around one commodity or product, linking households, enterprises, and states to one another within the worlds-economy’* (Gereffi et al., 1994, p. 2). Originally the framework, as developed by Gereffi (Gereffi, 1994), distinguishes three dimensions of a commodity chain. First, chains have a specific territoriality. Some are concentrated while others are dispersed. Second, each chain has a distinctive input-output structure of products and services that are linked together *‘in a sequence of value-adding economic activities’* (Gereffi, 1994, p. 97). Third, Gereffi distinguishes between different governance structures, that is the power relations and authority structures that *‘determine how financial, material, and human resources are allocated and flow within a chain’* (idem p. 97). Both global value chain and commodity chain literature explicitly acknowledge the flows of goods, financial and human capital within the chain, and explain how the governance structures between actors determine these flows. They show how economic activities in one area connect to other areas carrying out other parts of the production and distribution process. However, the global value chain concept differs from the global commodity chain concept at the point of governance. Whereas the global commodity chain concept distinguishes only two of these governance structures, (a chain driven by the powers of a leading buyer or a chain governed by the powers and wishes of a leading producer), the global value chain concept distinguishes at least five such governance structures: market, modular, relational, captive, and hierarchic governance (Gereffi et al., 2005).

Global value chains have become a growing field of research in recent decades. The Global Value Chain Initiative, started in 2000 by Gary Gereffi, John Humphrey and Timothy Sturgeon, shows an ever-expanding list of publications on value chains by researchers all over the world⁵. All these studies show that the value and commodity chain concepts are well-suited for explaining not only how economic activities in one place are globally connected, but also how the networks that they are part of influence what is happening at one place. However, there are also limitations to these studies. A study by Phyne and Mansilla (2003) on the salmon industry of Chile shows that the global value chain perspective does not take local political circumstances into account in order to understand the development of a place within the chain. This is a critique that Henderson et al. (2002) also have. In turn, Henderson et al. have formulated a global production network perspective that explains the development of a place as part of a larger global production network resulting from firms' ownership structure and architecture, supporting institutions (governmental, quasi-governmental, and non-governmental), supporting networks (its architecture, power configuration, and governance), and the sectors (technologies, products, and markets) that act upon this place.

In addition, some scholars (Henderson et al., 2002, Coe et al., 2008) have objections about the use of the word 'chain' in the global value chain and global commodity chain approaches since this word suggests that the production and distribution processes are essentially vertical and linear. That is, a linear sequence of input/output from basic material to final product, instead of a more network-like structure of value-adding, in which feedback loops are possible and vertical relations exist between different chains. This objection against the use of the word 'chain' has also been made with respect to the supply chain concept. This concept also seems to assume linearity between the steps needed to come from raw materials to end consumers of a product. But, just as is said for the value or commodity chain, in real this linearity is often not present. Relations are much more criss-cross and steps do not neatly follow each other in time (Hagdorn-van der Meijden, 2007). This is an important point to take into account for this study since I'm particularly interested in the ways in which specific value adding activities interact with other activities in local as well as non-local production systems. To be more specific, this study is not concerned with the value chain as such, but activities within this value chain and the relations these activities have

⁵ A database analysis of related publications since 1990, available on the website of the Global Value Chain Initiative (<http://www.globalvaluechains.org/>) shows that until now, the value chain approach has been used mostly for studies on industrial and agricultural production, as well as design and marketing functions related to each other in value chains. Apparel, textiles and footwear industries have received a particular amount of attention from researchers. A spring 2008 database query for 'apparel' returned at least 89 hits while 'textiles' returned 31 hits. Agriculture has also been well-studied (44 hits, e.g. Bair and Gereffi, 2001, Dolan and Humphrey, 2000, Sturgeon, 2003).

with other activities, actors, and places. In that sense, my approach comes much closer to the global production *networks* approach of Coe et al. (2004) and Henderson et al. (2002). That being said, it could be confusing to speak of networks instead of value chains, since the international trade-hub in this research is clearly seen as the link in a chain between production and wholesale trade and retail. This does not imply I will only study unidirectional trade flows and ignore the many other relations trade has with other economic activities and institutions and structures that cut through the value chain. In this sense I agree with Sturgeon et al. (2008), who argue that the chain metaphor does not have to “*assume a unidirectional flow of materials, finance or intellectual exchange*” and can “*usefully be conceptualized as a subset of more complex and amorphous structures in the spatial economy, such as networks, webs and grids*”, and can “*provide a snapshot of economic activity that cut through these larger structures, while at the same time clearly identifying smaller scale entities and actors, such as workers, clusters, firms, and narrowly defined industries*” (Sturgeon et al., 2008). What counts then, is how the concept of the value chain is used in the research practice.

With regard to the research practice I agree with the work of Henderson et al. (Henderson et al., 2002) that research into global production networks or value chains should pay attention to not only lead firms, but should also take into account other firms that may influence the chain including specific places and actors within the chain. The problem with only taking lead firms into account is that it might obscure the fact that, although a lead firm may lead a network in the sense that it sets the ultimate conditions that an end product should satisfy, there might be other firms that coordinate and control parts of the chain and where the lead firm does not take a direct lead. Furthermore, these networks are embedded territorially in nations, other jurisdictions and local production systems through actors within the network and their often relative geographical immobility. This geographical attachment and the many institutions that are at work at different scales influence the trade network architecture, in turn influencing the development of places it touches.

2.2 Trade activities: what are we talking about?

A theory of trade should start with a description of trade activities as a separate economic category. Trade has to be distinguished from other economic activities and as a separate unit within business organizations. This is no straightforward task. Literature on international trade does not often make a distinction between trade and production. Implicitly this literature presupposes a direct relationship between trade and production, although in practice this is often not the case. In many instances wholesale traders create international trade from third countries where production does not occur.

In these cases trade is an independent value adding activity. With this in mind we can see how a country could be a strong trading nation for products it does not produce and that international trade data reflects more than differences in the production of goods between countries. However, trade theory is almost exclusively centred on the idea of differences in production possibilities and levels of productivity between countries.

2.2.1 Neoclassical Trade Theory and New Trade Theory

(Neo) classical trade theory represented by the work of Ricardo, and the Heckscher-Ohlin factor price-equalization theorem is based on the idea of comparative advantages. When two countries are able to produce the same kinds of goods at relatively the same level of productivity, there will be no trade. But when the relative productivities for different goods differ between countries, trade will take place. This means that country A will import goods from country B even if prices in country A are lower overall. For this import to take place, the relative prices of goods must differ between the countries. This can be understood when one considers a scenario where there is no money, but only the exchange of goods. We can then express the price of a good as a relative price compared to that of another good. Table 2.1 shows an example of such differences in absolute and relative prices. In Belgium beer is relatively cheaper than in the Netherlands. On the other hand, cheese is relatively cheaper in the Netherlands than in Belgium, although in the Netherlands cheese is more expensive in absolute prices. Therefore Belgium will start to export beer to the Netherlands and get more cheese in return whereas the Netherlands will get more beer for its cheese in Belgium than in the Netherlands. As a result of this trade, the Netherlands will specialize in the production of cheese and Belgium in that of beer. Prices of beer will rise in Belgium and prices of cheese will rise in the Netherlands as the result of a larger demand. Due to this specialization, trade creates a growth of prosperity. The countries will trade until the point where relative prices for cheese and beer are the same in both countries. This is the point where productivity ratios in the countries have become equal.

Table 2.1: Example of absolute and relative prices for beer and cheese in Belgium and the Netherlands

	Belgium		The Netherlands	
Beer (B)	€1	1B=2Ch	€1.50	1B=5/2 Ch
Cheese (Ch)	€0.50	1Ch= ½ B	€0.60	1M=2/5B

The Heckscher-Ohlin factor price-equalization theorem states that the differences in relative prices between countries are the result of relative differences in factor endowments such as labor and capital. In fact, trade replaces the immobility of these factor endowments. Of course, this theory is not very realistic since trade between countries cannot take place at zero costs as a result of transportation costs, barriers to trade and all kinds of market imperfections. Moreover, in practice we see more trade between countries that have similar factor endowments than between countries with very different factor endowments. The most important trading partner of the Netherlands is Germany and not a country in say Africa that is richly endowed with production factors not present in the Netherlands like cheap labor, oil, diamonds, gold and other mining products. In general, the composition of Dutch imports and exports cannot be explained with the theory of Heckscher and Ohlin (WRR, 2003).

The new trade theory, of which Krugman is one of the most influential representatives, helps to overcome this problem to a certain extent. It tries to find other arguments for trade. New trade theory takes into account transportation costs (that make trade to nearby markets cheaper and more likely to take place) and the advantages created by economies of scale and home market effects (to explain differences in productivity between countries with liking factor endowments). In short, this theory shows plausibly through modeling that *'in the presence of increasing returns, countries will tend to export the goods for which they have large domestic markets'* (Krugman, 1980, p. 958). This comes close to the Linder hypothesis which states that trade takes place when high levels of production in the home market makes a product's price competitive on an export market with the export market itself being economically comparable to that of the home market (Krugman, 1980, p. 958, Van Esch, 1995, p.32)

Although new trade theory is much more sophisticated in its modeling and takes many more variables into account, the theory's basic premise is that trade is indirectly related to comparative differences in productivity in the production of goods between countries. In other words, trade in goods reflects the levels of productivity of a country. The theory, therefore, mainly is based on ideas and models to explain the location of production of certain goods and the location of their consumption. However, productivity differences in the production of goods cannot always explain trade patterns, especially not when we take wholesale trade and entrepôt centers into account. These *'entrepôt centers have a substantial effect on the prices and therefore on the magnitude of trade flows, which merits increased attention to their role in international trade'* (Feenstra and Hanson, 2004, p. 34). So it is also necessary to look at entrepôt and wholesale trade to explain trade patterns.

Trade activities do not need to be and often are not located in places of production or consumption. However, neo-classical and new-trade theories, do not explain why some places are specialized in international trade and why products and

goods take specific routes from their origin to their final destination. Trade theories are merely theories of production and productivity, but not of trade as an economic activity of its own. Therefore, these theories are often not applicable to countries like the Netherlands, which has become ever more specialized in an *entrepôt* economy over the last thirty years. It is, however, not necessary to abandon them altogether. We could try to use the trade theories that have production, factor endowments, economies of scale, and productivity differences as their main explanatory tools, to explain where wholesale trade takes place. Differences between nations in the efficiency of 'production' of wholesale trade then become important to explain trade flows.

2.2.2 *The output of trade*

Then what kinds of activities are included in trade? Essentially every kind of exchange can be understood as trade, including the services delivered by a consultant or dentist, since there is a payment in exchange for a service. In this way the whole economy consists of transactions that can be seen as trade. To explain trade, these transaction costs have to be taken into account: the lower transaction costs are the more trade will take place. Trade data can then be explained by the ability to lower these transactions costs. This is the way Den Butter has looked at Dutch international trade in his report for the scientific council for government policy (WRR, 2003). In this research I do not want to take such a broad definition of trade: the focus is on wholesale trade of goods that are not produced in the Netherlands. The delivery of services by a dentist or consultant, and retail activities therefore do not fit into the kind of trade that will be studied here.

In line with the observation made in the previous paragraph, trade as an independent value adding activity is less about the production of goods and more about the propulsion of goods within the value chain. This propulsion takes place through the exchange of property rights and redistribution of products amongst owners in space and time. The exchange of goods adds value to them. Following Haccoû (1957) and Jonker and Sluyterman (2000) trade leads to (1) an improvement in the ratio between supply and demand through the rearrangement of quantity and assortment of goods, (2) a rearrangement of capital (financing of goods), and (3) a rearrangement of characteristics of place and time of these goods. Further, trade activities change the quality of goods by adding services like advice, technical assistance or training. Product quality also increases through '*the composition of an assortment that is specifically directed to diverse groups of buyers*' (Jonker and Sluyterman, 2000, p. 11). This enables retailers to find different qualities from one source, making for easier cross-product comparisons. Often the wholesale trader also has a function in changing the time dimension of the distribution of goods. Products that have an irregular availability at the point of

production might become steadily distributed through warehouse functions of wholesale traders.

In conclusion, the input/output structure of trade activities, that describes what *“products and services are linked together in a sequence of value-adding economic activities”* (Gereffi, 1994, pp. 96-97) is as follows. The input consists of goods, trade and distribution services. The output is a good with:

- (1) different ownership;
- (2) possibly a different quantity structure;
- (3) potentially a different assortment;
- (4) a change in the distribution in time may be added to a product, as is the case with warehousing, and transshipment, and
- (5) potential change in the distribution in space.

Various trade services may be added to a product. Table 2.2 gives an overview of the services added to achieve different outputs.

It is impossible to completely describe all the activities performed by traders since there are so many and individual trading companies may deliver different types of services. However, all of these services seem to fall within one of three broad categories: trade services, distribution services, and something I have called ‘semi-production’. The first category of service comes down to the creation of a connection between a producer and a consumer/user market. The second group of services is related to the distribution of goods in space and time. Many of these services might well be executed by a specialized service provider such as a logistics company. The risk implied in activities like buying at stock are not part of distribution services, but of trade services since the taking of risks by a wholesale trader implies a change in distribution of ownership. A last category of activities I have added is semi-production. This refers to activities that change the qualities of the goods at stake through the addition of packaging, after-sales services, advice, training etc. These activities change the product’s content without transforming it into a different product category. For all of these groups of activities it is important that a trading company is able to manage and connect flows of orders, information, goods and money (Van den Berg et al., 1984, in Riemers, 1999, p. 49).

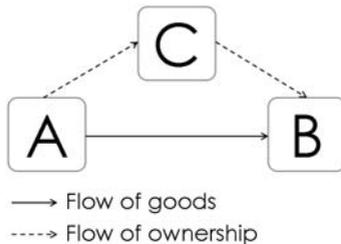
The different kind of services described apart from the core trade services make clear that a trade activity does not always imply physical transfer of goods. In the case of triangle trade (see Figure 2.1), the transfer of ownership of a good from person A to person B takes place through an intermediate ownership of the good by person C. However, the physical flow of the good is directly from person A to person B, so that there is no physical transfer of the goods to person C although there is a legal transfer of ownership rights of these goods from person A to person C and from person C to person

Table 2.2: Overview of trade services and their output

Type of trade service	Output	Service added to get this output
Core trade services	Change in distribution of ownership of goods	<ul style="list-style-type: none"> - Buying and selling at order or at stock - Risk taking for stocks/ financing of goods - Administrative transfer of ownership rights - Market creation e.g. auction, internet market place (bringing buyers and sellers of ready made-products together) or creation of supply or demand side through advertising/dissemination of market knowledge - Creation of sales organization - Creation of trust between producer (product) and market e.g. through quality checks at market place/by trader - Bridging of cultural barriers
Distribution services	Change in distribution of quantity of goods	<ul style="list-style-type: none"> - Collection of goods - Distribution of goods - Stock management
	Change in distribution of assortment of goods	<ul style="list-style-type: none"> - Collection of goods - Distribution of goods - Stock management
	Change in the distribution in time of goods	<ul style="list-style-type: none"> - Warehousing - Speeding up the value chain through organization of transportation, handling of customs formalities, supply chain management
	Change in the distribution in space of goods	<ul style="list-style-type: none"> - Organization of transportation - Handling of customs formalities - Transportation
Semi-production	Change in qualities of goods	<ul style="list-style-type: none"> - Addition of after-sales services to goods - Addition of training to goods - Addition of packaging to goods - Addition of guarantee to goods

B. Already in the fifteenth century this kind of trade was very common. The role of a city like Amsterdam was to a large extent based on its role as centre of information that supported triangle trade in which goods did not physically come to the Netherlands but transactions were made through Dutch traders (Lesger, 1999, Lesger, 2001)

Figure 2.1: Triangle trade



2.2.3 Economic organization of trade

A next question to be discussed is how we define trade activities as separate economic activities within the value chain from an organizational point of view. Trade is a distinct value adding activity within that chain. As previously mentioned, individual activities or links within the chain can be related to each other in many different ways: there can be horizontal links when products are traded from wholesale trader to another. There can also be horizontal links in the network when two traders work together and share, for example, transportation. Vertical links also exist between producer and trader. These relations can be created through market transactions, through network relations, or even hierarchically within one enterprise. Sometimes trade activities might be organized within multinational corporations involving the redistribution of goods between the different parts or subsidiaries of these corporations. Other times they might be related to the rest of the value chain through market or other relations. I will discuss this in more detail in paragraph 2.6. As we shall see, the relation that trade has with the other activities in the value chain might influence how it is embedded in a specific place.

2.3 The role of trade: product characteristics, life cycles and worlds of production

The description of trade in the previous paragraph and the framework for analysis that I have proposed may give the impression that the role of trade is rather static. However, the role of trade and its embedding in specific places is changing continuously (see Box

2.1). Depending on the products and markets involved, other entry strategies might be chosen with other trade services becoming viable as they increase the profitability of the value chain as a whole. Products and markets change continuously and therefore also the role of trade.

Box 2.1 The changing role of trade

The changing role of trade in the 19th century From quantity brokers to quality brokers

The role of trade is not static. The Netherlands experienced a downturn in trade after 1850 (Jonker and Sluyterman, 2000). Producers and consumers had increasing direct communication possibilities and needed trade less and less as an independent player able to keep stocks and deliver capital power for purchases. Trade lost a large part of its role and only kept going when in-depth product quality and variety knowledge was needed. Otherwise, trade became no more than an intermediary. These developments were different from those for trade in manufactured goods that emerged after 1850. Here fast growing product assortment and the fact that production in factories was often more remote from consumption than traditional production made the distance between production and consumption larger. Traders became essential for closing this gap and helping to find markets for producers of new products. For these kinds of tasks, knowledge of product and consumer markets became important as well as the creation of good sales relations. In short: different characteristics of manufactured goods resulted in a different role of trade.

Today the distinction between manufactured goods and commodities is not always easy to make. Agricultural products often have many characteristics of manufactured goods. For example tomatoes come in many different varieties and qualities and are produced in high-tech greenhouses. Also crude materials like oil or natural stone can get characteristics of manufactured products through classification and refinery. A product made with standardized input might find a very specialized market through branding an marketing and a product that needs very specialized inputs might try to find very generic markets. But although the distinction between manufactured goods and commodities in a way is getting blurred, the role of trade and how it can add to the profitability of the chain still depends on the character of a good, its market and the way it is produced. Markets and production technologies change over time and influence the role of trade.

2.3.1 The role of trade in different worlds of production

Product, input (to create the product) and output (market) characteristics all influence the role of trade. The idea that product characteristics influence trade is explored by

Duranton and Storper (2008) who show that the influence of transport costs on trade volumes between two economies is different for standardized products and more advanced, custom made products⁶. However, product qualities might not only influence trade volumes but also influence the role of trade in the value chain. To get a grip on the combined effects of product characteristics on trade, it is helpful to put them into a model of ideal and simplified product typologies.

Storper (1997) has created such ideal types to better understand how these aspects influence the kinds of innovation and competition expected to develop in different markets. He calls these different kinds of markets *worlds of production*. There are four worlds of production in which quality is assessed differently; competition takes place on different grounds; demand fluctuations are different; and flexibility is created differently. These differences are the result of differences in resources that are needed for production (specialized versus standardized resources); different qualities of products (generic versus dedicated); and differences in uncertainty (real uncertainty versus predictability) (see Table 2.3).

Table 2.3: Worlds of production

		Critical resources and competences to produce a good	
		Specialized	Standardized
Kind of products demanded and situation in which production takes place	Dedicated, uncertainty	The Interpersonal World	The Market world
	Generic, predictability	The World of Innovation	The Industrial world

Source: adapted from Storper (1997, p. 111)

It goes without saying these ideal types, like all ideal types, are never found in reality. Also in the *Market World* specialized knowledge is used at times, while producers in the

⁶ Duranton and Storper show that “when a strong distinction is made between transport costs (i.e., the ‘physical’ costs of a shipment) and trade costs (i.e., the sum of all the costs incurred to deliver a good to its user, including in this case significant back and forth exchanges between the machine producer and its user), a decline in transport costs need not imply a decrease in trade costs” (p. 294). They explain this via transaction costs. As transport costs decline, exporters start to produce machines of higher quality for export that are more dedicated or custom-made and need more trade services such as installation, after sales services, and training. This increases trade costs. “When transport costs are sufficiently high, this quality effect more than offsets the direct effect of lower transport costs” (idem).

Interpersonal World and the *Innovation Model* (hereafter: *World of Innovation*) use standardized inputs. But generally speaking, in the *Interpersonal World* and the *Market World*, buyers are much less uniform and more differentiated than in the *Innovation* and *Industrial World*.

Storper's worlds of production show very different possibilities and constraints to increase profitability. In principle, the profitability of a firm is the result of the gross profit divided by its costs. Storper (1997, p. 118) has written this down in the following function.

$$r = \frac{EBE}{K + AC + PC}$$

where:

r = profitability

EBE = total surplus of gross profit

K = fixed capital

AC = active circulating capital (upstream, intermediate, and final stocks and short term credit to clients)

PC = passive circulating capital (short-term credits from suppliers)

We can deduce from this function that the levels of fixed capital and circulating capital greatly influence profitability. This is especially true in a world of production with a generic demand where in stock merchandise can absorb fluctuations in demand. Stocking, however, increases the amount of active circulating capital. This does not seem to be a good strategy in a dedicated market since there is a great risk that stocks will never be completely sold off since they are only suitable to a very specific and uncertain demand. At the same time, when production capacity is not completely used, total surplus of gross profit becomes lower. This is a problem for production worlds with a dedicated market.

Because of differences in demand, uncertainty, and means of production, in different worlds of production firms compete in different ways, looking for new innovations to stay ahead of competitors. We most often think of product innovations, but process innovations are also possible. This latter type of innovation involves the aforementioned value chain and how it is organized. It includes, amongst others, how the propulsion of goods and trade are organized within it. This is of interest in this research. How could trade then influence the profitability of firms in the chain and what different roles can be expected in different worlds of production?

To answer the question above I refer to Storper's (1997, p. 120) overview of the strengths and weaknesses of these different worlds of production. Trade can possibly

influence these strengths and weaknesses in order to increase the profitability of the chain. Table 2.4 gives an overview of the strengths and weaknesses of firms in different worlds of production. Departing from these strengths and weaknesses, and with the aid of knowledge about the use of trade that De Jong (1981) has described in his *Dynamische Markttheorie* (Dynamic Market Theory), we can determine what the main contribution of trade is in different worlds of production and the assets needed for this trade. This is shown in Table 2.5.

In the Interpersonal World direct contacts between supplier and buyer are important. Specialized resources become critical for delivering products that are dedicated to a specific buyer. Trade can play a role here as broker between specialized supply and demand by adding customization, installation or training to goods. In this way trade can add to the product scope and variety producers can attain. However, this can be a delicate task since this supposes substantial product and market knowledge from the trader otherwise he/she will not be able to see possibilities available to broaden product scope and variety with the given specialized inputs. When the trader succeeds in this task, the volume of trade can increase relative to the available production capacity (increase sales to installed production capacity), as well as the value added relative to the amount of labour. Trade can also play a role in lowering labour costs or installed production capacity, by connecting the demand of different dedicated suppliers (of goods to end users) to specialized production capacity available in lower cost areas. For this not only is product and market knowledge important, but also cultural skills and awareness to bridge knowledge gaps between demand and production in order to transfer tacit knowledge needed for production. In this world of production the main task for trade then is to search for dedicated markets for specialized production capacity and/or to find specialized production for a dedicated demand. When trade pursues the latter it can take the form of coordination and control of production to fulfil the wishes of a dedicated demand. In this world of production contacts between production (development) and demand most likely need to be strong.

In the World of Innovations, in which products are still new and do not have an established market, competition takes place via learning and demand follows supply. Market creation is essential in this phase. Companies often prefer serving a generic market, using specialized inputs. It is not about finding customers with a very special demand, but rather finding broad markets for a particular product. These demand characteristics emerge at the start of the product life cycle, when a market is found or created for a new product. When the use of a product can be broadened without making the product dedicated, costly investments in product development can be recouped leading to steadily increasing profits. This can only be realized when a market grows and one unit of labour yields higher profit with less capital needed per unit of sales.

Table 2.4: Production values that affect profitability in each world of production

World of production	Profitability	
	<i>Favourable</i>	<i>Unfavourable</i>
Interpersonal World	- High gross margin per unit sold - Not much circulating capital to sales - High value added to fixed capital - Low fixed costs to number of workers	- High installed production capacity to total sales - High labor costs to value added - Low value added to number of workers
Market World	- High gross margin per unit sold - Not much circulating capital to sales - High value added to number of workers - Low labor costs to value added	- High installed production capacity to total sales - High fixed capital to number of workers - Low value added to fixed capital
World of Innovations	- Low installed production capacity to total sales - High value added to number of workers	- Low gross margin per unit sold (result of high investment and labor costs and circulating capital costs) - High circulating capital to sales - High labor costs to value added
Industrial World	- Low installed production capacity to total sales - High value added to number of workers - Low labor costs to value added	- Low gross margin per unit sold (result of high investment and labor costs and circulating capital costs) - High circulating capital to sales - High fixed capital to number of workers - Low value added to fixed capital

Source: adapted from Storper (1997, p. 120)

Table 2.5: Main trade services and assets for these services in different worlds of production

	Main trade services	Main trade assets
World of production		
Interpersonal World	<ul style="list-style-type: none"> - Buying and selling at order - Customization, installation, and training - Creation of sales organization 	<ul style="list-style-type: none"> - Product knowledge - Market knowledge - Cultural and language knowledge to bridge information gap between production and demand
Market World	<ul style="list-style-type: none"> - Speeding-up the value chain - Collection, distribution - Buying and selling at order - Creation of sales organization/market - Creation of trust through quality checks and guarantee to goods - Advertising - Coordination of part of the chain 	<ul style="list-style-type: none"> - Product knowledge - Market knowledge - Cultural and language knowledge to bridge information gap between production and demand - Organizational skills - Transport and distribution infrastructure and knowledge and customs practices
World of Innovation	<ul style="list-style-type: none"> - Market creation and safeguard of intellectual property - Information intermediation between production and market - Creation of trust through addition of guarantees, training, and after sales services to goods 	<ul style="list-style-type: none"> - Juridical infrastructure and knowledge - Product knowledge - Market knowledge
Industrial World	<ul style="list-style-type: none"> - Buying and selling at stock - Market creation/ opening up new market areas - Collection, distribution, stock management, warehousing of goods (Organization of) transportation - Handling customs formalities 	<ul style="list-style-type: none"> - Taxes - Market knowledge - Physical infrastructure - Distribution knowledge - Labor costs

Trade can supplant a growing market by opening up generic markets for new products, providing producers with information about demands in the market, and the market-with information regarding new product possibilities. Trade can also increase sales margins by increasing consumer trust in a product (branding, warranties, etc.). In this manner the market for a given product can grow while margins increase. Trade plays a role as market creator in this world through advertising and the addition of value-added information, training, and product guarantees. Trade can also help protect intellectual property rights of producers when they enter new market geographies. Trade-related tasks will often be organized within a company since these tasks are quite specialized in this phase of the product life cycle and it can be very difficult to find traders possessing enough knowledge to act as an intermediary (De Jong, 1981).

Both in the Market World and in the Industrial World producers aim for economies of scale. In the Market World, where demand is uncertain, it is important to keep product stock as small as possible in order to minimize storage costs and to maximize flexibility for adaptation to changes in demand in a dedicated market. To keep production levels as high as possible, products have to be differentiated time and again (to open up new markets) or production has to react as fast as possible to changing differentiated demands. Trade can play an important role here. Wholesale trade can increase the use of production capacity by finding specialized markets for large-scale production. This can be done through the creation of an image to a product (branding). For a very standardized product like beer, a specific consumer market can be reached through the creation of a specific image around a specific brand. In this way, production does not demand specialized resources, whilst the market of the products is dedicated. Trade can also increase the value added to fixed capital by branding or by the addition of guarantees to goods. Decreasing the reaction time of production to new demands not only increases production levels, but can also increase product value since new product prices are often higher at the entry phase of the product life cycle. Speeding up the chain can be accomplished by assuming coordination and/or management of parts of the value chain. For example, design tasks or organization of the supply chain and transport can be outsourced. When speed is of the essence, fast and efficient customs are important for traders.

Another issue is high fixed capital cost to number of workers and installed production capacity. Coordination of outsourcing by traders and buying and selling at order can diminish the fixed capital ratio to number of workers or decrease the installed production capacity needed at a brand name firm without its own production capacity. Per unit sales margin is relatively high in the Market World. Trade can help increase these margins for more standardized products in this world by bringing supply and demand together at a large scale and redistributing standardized supply into smaller mixed batches that can find their way to dedicated demand. The addition of

customization in the form of packaging can also increase margins. When we suppose that trade possesses superior market knowledge, uncertainty about demand is much smaller for traders than for producers. This superior market knowledge, organizational and (tacit) abilities (transportation and logistic infrastructure and knowledge, cultural and language skills) to quickly bridge barriers between (cheap) standardized production and dedicated demand give trade its right to exist in the Market World. The superior knowledge and skills of traders can then result in higher levels of sales, a more efficient use of production capacity, and higher profit margins.

In the Industrial World trade does not look for dedicated demand, but rather for generic product demand. Producers prefer maximized production capacity without leading to large amounts of in stock merchandise, as this leads to an increase in active circulating capital, decreasing profitability. Therefore, at any time, costs should be kept as low as possible through cheaper transport and distribution, and lower-cost locations for these activities. Local labour cost and tax rates become important factors for firms to consider when deciding where to locate trade and distribution activities. Trade can increase the costs in the Industrial World since markets are quite predictable, yet still have ups and downs. Producers often face high circulating capital costs in the form of unsold stock when markets are down. Trade can use stocking to own account and speculation on future price developments in order to absorb demand fluctuations and diminish circulating capital costs. Examples of trade in this world of production are the futures markets for raw materials like oil, metals, or certain food products. Of course trade can also increase possibilities for large-scale production by opening up new markets to producers. For example, a producer can use a trading company to reach a market where he does not want to set up a sales organization but still wishes to sell his product. Branding also opens up new markets, however this introduces product differentiation. Branded products differentiate themselves from other products through image to stimulate sales and get a higher per unit profit margin. As products gain dedicated markets, they become part of the Market World and should no longer be seen as part of the Industrial World. In the Industrial World, then, important skills for traders become being able to foresee future demand through market knowledge, as well as stock management skills for collecting, warehousing, and distributing goods appropriately.

To conclude, it seems likely that trade plays a different role in each world of production. When this is the case, it is also probable that each type of trade node plays a different role in different world of production, making other trade services in that node more important⁷.

⁷ For example, storage capacities might be an important asset of distribution nodes in the Industrial World whereas the quick handling and customization of goods through value added activities might be the main asset of such a node for Market World products. In the Interpersonal World the trade-network node might be especially used to get access tot the very specialized supply networks of traders, whereas in the Market World the quick response time that traders can achieve might be of greater relevance.

2.4 The concentration and location of trade activities within the value chain

Paragraph 2.2 has defined trade as a separate activity within a value chain and paragraph 2.3 has defined its role for different goods and markets. The link of trade in value chains has, in many cases, a tendency to concentrate in specific places. An explanation for this tendency could be that characteristics of product, demand and supply often result in the development of only a few very large trade centres. This will be discussed in the next section. This explanation is not sufficient. To answer the question of why certain places attract more trade than others it is important to know what input is needed for trade services. Basically three things are important to bridge property rights and the time and space of goods in the value chain. First a juridical infrastructure is needed for crossing national juridical borders. These borders and infrastructure are not held constant and often influence the location of trade. Second, especially when timely physical distribution of goods is needed, physical infrastructure is very important. Last, and basically all encompassing, knowledge is needed. For example, knowledge of products and demand, knowledge to bridge cultural barriers, and knowledge to organize legal ownership transfers are all needed. Places well supplied with this knowledge base can be very attractive loci for international trade. Knowledge and information in trade is so important that it needs some elaboration. This will be given after a short discussion in the next section on the mechanisms inherent in trade leading to its concentration. Subsequently, we will look at the location characteristics that might attract and concentrate trade. Of course location factors important to trade might be different depending on the services involved in trade. We will look at this issue in the last section of this chapter.

2.4.1 The concentration of trade

The discrepancy between the variety of products demanded and offered and the geographical scale at which both can meet is an important determinant of the geographical scale of concentration of trade. The larger the discrepancy, the larger the trade and distribution node will be. While the baker next door can deliver all kinds of breads their customers ask for without the help of wholesale trade, the greengrocer cannot. Just like the florist the grocer needs intermediate trade, a market or auction, or their own direct links to many different farmers to meet year-round demand for broad and deep assortments of fruits and vegetables. Volatility in demand can also play an important role. In the oil markets, for example, a combination of many secondary or oil-based by-products following refinery and highly fluctuating supply and demand renders a profitable market for intermediary traders on various spot energy markets like the Rotterdam spot market. In addition, intermediary agents play a major role in the fish

industry, one of the largest, most globalized value chains in the world. Fish catches are highly volatile, varying widely in composition; both producers and sellers are manifold. The kind of good at stake plays a role: for perishables, warehouses are likely not as large and centralized as for non-perishables since long-term storage does not suit items with short shelf lives. However, cooling technology and ever increasing speeds of transport create new possibilities for the centralization of trade in perishables.

With respect to product characteristics, the ratio between value and weight is important: the heavier the product compared to its value, the less international trade will take place. Companies will try to set up production lines in different domestic markets or make contractual agreements with foreign firms for production in countries to which they otherwise would have exported their product. Here we touch upon the issue of entrance strategies of firms having an influence on the use of international wholesale trade centers. Market characteristics and especially market failure plays a role here. For example, impossibilities in exploiting economies of scale in production stimulates firms to transfer goods across national boundaries within their own organization (Dunning, 1988, p. 43). Firm characteristics like degree of risk averseness, experience, size, and frequency of transactions play a role in the market entry strategy decision of firms (Veldman, 2004). The entrance strategies of individual firms are, however, explanations for trade we will not explore further or use in this study since they do not add to our understanding of concentration of trade and its attachment to specific places.

2.4.2 Knowledge and information in trade

In the words of Jones (1998, p.2) trading companies *'can be seen as knowledge and information based organizations rather than capital based.'* As already mentioned above, trading companies handle not only flows of material goods, but also flows of orders, information, and money. For all of these flows different kinds of knowledge and information are needed. Casson (1998) makes a distinction between routine and more strategic information. Routine information is *'information required for procurement and distribution'* (idem p. 35). More strategic information *'relates to the management of major risks that the company faces. (...) [T]hese relate, first, to the estimation of the overall demand for intermediation in the products the company handles, and, second, to the opportunity to speculate on, or conversely the need to hedge against, movements in the price of goods that are passing through the company's hands'* (Casson, 1998, p.35). Another kind of strategic information might be information of the production sites and the knowledge needed to be able to lower the risks of delays in delivery or mistakes in production.

Yet another kind of information often mentioned as important strategically is in-depth product knowledge. Biglaiser (Biglaiser, 1993) has shown that intermediate trade appears particularly when the quality of products at offer is difficult to assess.

Traders invest in their knowledge of that field to become specialists for the assessment of product qualities. The idea of the importance of product knowledge (besides market knowledge) for trade intermediaries also comes to the fore in the studies of Feenstra and Hanson (Feenstra and Hanson, 2004) who show that traders in Hong Kong often resolve informational problems in exchange. *'Hong Kong markups on re-exports of Chinese goods are higher for differentiated products, products with higher variance in export prices, and products sent to China for further processing'* (Feenstra and Hanson, 2004, p. 3). This view on the importance of knowledge is also supported by Petropoulou, (Petropoulou, 2005) who concludes that information costs lead to the use of intermediaries. It is his expectation that when information frictions disappear, intermediaries will also disappear in trade. However, it is questionable if this will ever happen. As the description of developments in trade in the Netherlands in the nineteenth century by Jonker and Sluyterman (Jonker and Sluyterman, 2000, see box 2.1 The changing role of trade) shows, information friction can appear very suddenly when new products enter a market. During that century the Netherlands lost a lot of its trade but industrialization led to a rapid increase of new products, making wholesale traders important again to conveniently arrange all these new products. Another reason for the increase in demand for wholesale trade was that mass production and transportation had in fact increased the distance between production and consumption. Wholesale trade with knowledge of production and consumption markets could connect both. Wholesale traders were able to open markets for producers who were much too busy with production for their expanding markets (Jonker and Sluyterman, 2000, p. 189).

In short, knowledge is key for trade and crosses many different fields: financial, administrative, product, and in-depth market knowledge. Market knowledge includes knowledge about what is offered and demanded. It also includes knowledge about how to operate in these different markets including how to create trusting business relationships in order to lower the transaction costs in trade. Every trading company has different operations and offers different services. Different kinds of goods often demand different trading roles. Therefore, we can expect the knowledge each individual trading company uses in operations to differ in some extent.

2.4.3 Location factors attractive to international trade

International trade cannot exist without certain physical and legal structures. However, there are more factors attractive to international trade, including the aforementioned development of trade knowledge. The concentration of this knowledge and the location of related activities in close proximity can create trade clusters and locations that offer advantages for firms involved in trade. All of these location factors attractive to international trade will be discussed in this section.

Physical characteristics

Physical factors and geographical circumstances can be an attractive location factor for trade. Trade centers often develop near seaports or a waterway to the sea. Of course these port connections are partly also the result of human action and investment (e.g. to dig a canal). Other man-made physical infrastructure supporting trade are highways, railways, airports, and even high quality internet connections enabling electronic trading. The first of these seem especially relevant to distribution nodes, although also marketplace nodes might be very much dependent on these as products need to be transported to and from the marketplace. Internet and other infrastructures for electronic trade, such as connection to a fiber optics cable network, are probably also very important to the marketplace node.

Characteristics of legislation

Other assets influencing trade flows consist of legislation, rules, and their enforcement. Legislation can create great location advantages such as low corporate taxes. Other legislation, like strict environmental laws, can create location disadvantages. The importance of legislation is reflected in international rankings of the most attractive countries to locate; rules, legislation and practices in the field of taxation, labor, and customs formalities and duties are often taken into account in these lists (e.g. Arvis et al., 2007, FedEx and International, 2007, NDL/HIDC, 2004b, NDL/HIDC, 2005a). Trade agreements might also attract investments and trade. Countries that have trade agreements with a lot of countries might develop into a hub in which trade agreements with many countries overlap. Exporters in the hub country have an advantage over exporters in other countries that do not have free access to so many foreign markets. Additional production near this hub could be cheaper since intermediate goods can be obtained at lower prices (Wonnacott, 1996). Singapore is a good example of such a country that has developed into a hub and has gained economically from its openness to trade (Feridhanusetyawan, 2005, Rajan et al., 2003). However, legislation on the origin of goods that mostly accompanies trade agreements (to prevent exporters from one country to by-pass tariffs by exporting through a third country) makes the advantage of being a hub less direct. Administrative surveillance and legislative puzzles on these rules of origin, including how different trade agreements might be used and combined, can even rise the costs of trade and limit freedoms to trade with countries with which no agreement exists (Rajan et al., 2003, Feridhanusetyawan, 2005). However, one of the main purposes of trade agreements is to increase the volume of trade by lowering costs (Baier and Bergstrand, 2006). Touching on the aforementioned legal matters surrounding trade, institutional quality as expressed inter alia by the regulatory quality and rule of law has a positive influence on trade patterns, as Linders (2006) has shown.

Locational external effects

Although location assets such as legislation and physical characteristics certainly play a role, economic specialization is often also explained with the help of localization theory that describes how a location of firms within the same or closely related industries in each others vicinity gives these firms advantages (Malmberg and Maskell, 2002). Mentioned briefly earlier, cluster literature is part of this theory. It has much to say about the way in which a firm's surroundings can be advantageous for its functioning in terms of costs, knowledge and innovation, increasing the competitive power of companies at a specific place. These insights explain the economic concentration of specific industries in specific places (see for example the work of Henry and Pinch, 2000, Lazerson, 1993, Lazerson, 1995, Schmitz, 1992, Henry et al., 1996). However, this theory has also been criticized as being a chaotic concept (Martin and Sunley, 2003) that is not clear in defining geographical boundaries and scales, which firms can be seen as part of the same industry, and the links between firms in the clusters involved (Martin and Sunley, 2003). In this research I will use the explanations given in cluster and localization literature and research for the co-location of firms within the same industry (although it remains unclear what 'the same' means exactly). I identify four groups of arguments to explain advantages created by proximity of firms in the same industry: economies of scale, transactional efficiencies, knowledge spillovers and development, and labor market effects.

In the first group I include the basic argument of Alfred Marshall that "*the concentration of firms in close geographical proximity within 'industrial districts' allowed all firms to enjoy the benefits of large-scale industrial production*" (Newlands, 2003). Production en grosse is more efficient and cheaper than production of small numbers and it creates products of better quality. Through co-location, economies of scale internal to the firm in the form of operational efficiencies become external economies of scale in the form of lower prices (Krugman, 1991). Examples of the efficiency generated by co-location of the same kinds of firms that together create a large market for specialized services are lower transportation costs and possibilities for developing specialized transportation when trucks are shared through a logistic service provider, or more efficient and skilled customs clearance when performed by a specialized service provider for individual firms. Marshall's argument on the advantages of co-location included also ideas on the cooperation between firms enabled by it. This idea resurfaces in the second two advantages created by co-location: transactional efficiencies and knowledge spillovers.

The second argument states that proximity to each within a local system can result in a specific culture, or local ways of doing things that lower costs for transactions. Local reputation that prevents opportunistic behaviour is an example. Amin and Thrift (1994) have used the term *institutional thickness* to describe the many local insitutions such as firms, financial institutions, local government, chambers of commerce, workers

organizations, etcetera that frequently interact and stimulate, inter alia, the innovation and adaptation capacities of companies and specific regions. Storper (1997) refers to the ways of doing things that make transaction costs lower as *conventions*. Institutions are a special form of conventions for him: those that are a formal rule. Formal institutions, then, need to have a 'soft', conventional foundation to be successful. Many other authors, however, also include informal rules in their description of institutions. Amable (2003) describes them as socially shared rules that provide information about one's own and others' behaviour and in the words of Zijdeveld (2001) institutions are '*patterns of behaviour, traditional ways of acting, thinking and feeling*' (Zijdeveld, 2001, p.22). He makes a distinction between institutions and organizations. To be clear, we should then make a distinction between informal institutions (or conventions), formal institutions (rules, laws, and prescriptions that can be enforced), and organizations (in which both formal and informal institutions operate). A well known case in which local institutions and conventions played a major role in lowering risk and increasing trust in transactions is that of the Third Italy⁸. In the clothing district of Modena, when designer firms outsource production, there is no contract needed to prevent producers from leaking information on designs to other producers: it is simply the convention not to do so (Lazerson, 1995). This makes outsourcing a lot cheaper than if there were no such a convention of trust within the district and contracts would have been needed to protect designs.

The third argument is based on the idea that when companies are located close to each other and there is a possibility for frequent face-to-face contact on a formal and informal basis, codified and tacit knowledge can easily circulate from company to company. This gives firms within a knowledge cluster advantages over firms outside of the cluster and stimulates the development of further knowledge (see for example Bathelt et al., 2004, Malmberg, 2003, Malmberg and Maskell, 2002, Storper, 1992). This is, of course, also stimulated by local institutions (formal and informal) that help the dissemination and understanding of tacit knowledge. Also in literatures on communities of practice informal knowledge is an important issue. However, in this literature it is not so much co-location but rather organizational or social proximity that is taken into account when understanding how knowledge is developed and circulates (Amin and Cohendet, 2000, Brown and Duguid, 1991, Lam, 2000, Brown and Duguid, 2001). But when the two go together, geographical proximity might lead to knowledge exchange in local communities of practice.

⁸ The Third Italy refers to regions of the North East (Veneto, Friuli), Emilia and Central Italy (Tuscany, Marches). This region has a lot of attention from economic geographers and sociologists because of its economic success in the 1980s based on flexible specialization. The industrial structure of the region is characterized by small family-owned enterprises operating in a dense network of outsourcing.

As discussed in an earlier section, strategic knowledge about demand and supply and qualities of goods is very important to trade. A trader has to know what the issues are like in different markets. That requires the trader to be close to these markets knowing it is impossible to be near to every market.

“The typical trading company does not have sufficient personnel to monitor all these sources [of strategic information m.l.] at first hand. Its strategy is therefore to develop a network of contacts through which much of the relevant information can be obtained at second hand. Some of these contacts may be of a personal and confidential nature, but others may simply involve scanning newspapers, journals, and other impersonal sources of published information.”
(Casson, 1998, pp. 35-36)

Concentration of markets may then be efficient for traders. Also temporary concentrations such as trade fairs, conventions, and other professional gatherings are an example of the efficiency of concentrated market places for the exchange of information. They can be seen as a vehicle for the existence and creation of non-local knowledge communities: temporary clusters make it possible for firms to learn from interaction with normally distant suppliers, customers, peers and rivals. (Maskell et al., 2004). They enable access to distant markets and

“integrate local and global communication flows and connect distant pockets of knowledge in different parts of the world. [...] They do not replace, however, the stable and continuous forms of knowledge creation in permanent clusters.” (idem, p. 5)

The last argument states that when companies are close to each other, labor can switch easier from company to company and people will be more inclined to invest in their skills because they are more certain to get a higher return on the investment. This investment not only strengthens the position of labor itself, but also the knowledge development and advantage of a region (Glaeser, 1998).

2.4.4 Location factors important to different kinds of trade services

The importance of the location factors mentioned above might vary with world of production and trade services at stake. This has an important implication, namely, that with changing supply or demand characteristics, the assets of a trade region might become obsolete and the attachment of trade activities to a place might diminish. Physical infrastructure and customs practices are most important when it comes to the

distribution services added in trade. Juridical infrastructures and trade agreements are the basis for trust and influence the transaction costs in the exchange of ownership of goods. But local available market knowledge is also central to the execution of core trade services. Finally, labor costs seem to be more relevant when it comes to labor intensive services such as transportation, warehousing and value added logistics (e.g. (re)packaging of goods). Table 2.6 gives an overview of possible location factors that are important for different trade services. It does not do so exhaustively, but serves as an example of the location factors that might be important for different kinds of services. At top of this, it might differ from one to another type of trade node which location factors are most relevant: trade legislation might be more central to the marketplace node than to the trade-network node, and customs practices seem to be more decisive for distribution nodes than for trade-network nodes.

In paragraph 2.3 these services have been related to the worlds of production. Each world has its own specific mix of services that seem to be most important. Therefore, in each world other location factors seem to be most important to accommodate trade. To explain the attachment of trade to the Netherlands, the descriptive part of the empirical study will look for the presence in the Netherlands of the location factors mentioned in this section and how they are related to the worlds of production and services included in the international trade of goods through the Netherlands.

Table 2.6: Location factors important for different trade services

Type of trade service	Main location factors
Core trade service	<ul style="list-style-type: none"> - Juridical infrastructure and trade agreements - Cultural and language knowledge - Market knowledge
Distribution service	<ul style="list-style-type: none"> - Physical infrastructure - Customs practices - Distribution/logistic knowledge - Labor costs
Semi-production	<ul style="list-style-type: none"> - Product knowledge - Labor costs - Import processing rules & practices

2.5 Territorial specificity

2.5.1 Territorialization

In the previous paragraph I have only mentioned concentration and location factors for different trade activities to a specific place. But if we want to understand how strong these factors attach trade to a specific place – whether or not they are able to concentrate trade at a specific place and embed them in such a way that they can hardly be relocated – we have to look for more than location factors in relation to product characteristics. What emerges is what Storper has called *territorialization*. Storper (Storper, 1997) introduces this concept to describe a situation in which economic activities are ‘*dependent on territorially specific resources*’ (Storper 1997, p. 170). There are many reasons that can lead to the concentration of certain activities in a specific place. However, to say that activities are concentrated is not the same as to say that they are territorialized in the way Storper explains this concept. For him: ‘*The essential condition of territorialization is that the activity be dependent on resources with specificities that are strongly territorialized and where the supply of these resources is subject to important inelasticities*’ (Storper 1997, p. 179). The opposite case of a territorialized economy is the case in which place can be played off. Storper calls this a *pure flow economy*. ‘*The essential condition for a pure flow economy is that a location offer only those factors of production that could potentially be substituted by a large number of other locations*’ (Storper 1997, p. 178).

Territorialization then is different to agglomeration, localization and urbanization effects in general. It relates only to those cases in which these developments lead to assets that are specific to the area at stake and are not available in many other places. The locational substitutability of these assets is low. Based on this idea a distinction can be made between production systems that are territorialized and systems that are not (assets are easy to substitute for geographically). The latter are in the words of Storper, *pure flow substitution economies*. These can be seen as international production systems in which places compete against each other on easily replicable production factors such as labor costs or legislation. Attachment to a specific place is in this case only temporary, based on business economic considerations such as sunk costs or costs of operation but not on territorialized external effects. In the words of Jessop (1998) regions that enter into this kind of competition follow a weak competitive strategy. In a pure territorial economy the opposite is the case: territorialized assets (external advantages) keep activities attached to a location, leading to a strong competitive strategy because it is difficult for others to imitate.

Territorialization can be the result of the availability of specific natural resources, but it could also be the result of ‘*assets that are available only in the context of certain interorganizational or firm-market relationships that necessarily involve geographical*

proximity, or where relations of proximity are markedly more efficient than other ways of generating these asset specificities' (Storper 1997, p. 170). This latter kind of asset does not appear out of the blue but often develops in time as assets become regionally specific and relational in an evolutionary process. In this way regionally specific worlds of production develop that have their own '*conventions, rules and other practices'* or '*regional specific relational assets'* (Storper, 1997, p. 76).

Territorialized assets lead to geographical monopolies. Territorialized assets can be seen as *new combinations* as described by Schumpeter, (Schumpeter, 1934 (reprint 1980)) since they are the result of the combination of possibilities at a specific place in a geographically unique way. Terhorst and Tordoir have called this the monopoly power of place (Terhorst and Tordoir, 2006). In Schumpeter's view, development is about '*employing existing resources in a different way, in doing new things with them, irrespective of whether those resources increase or not'* (Schumpeter, 1934 (reprint 1980), p. 68). As soon as the same developments (imitation) or new developments start off at other locations and make obsolete the monopoly assets of the first location, this first location will lose its monopoly position. This means that territorialized assets and possible monopoly powers resulting from them are always only temporary in character. As an illustration, we could take the Swiss Jura. This area has been the world's number one watchmaker: there was no other area with a comparable technical knowledge base for mechanical precision work. All kinds of organizations such as contests in watch making and awards, stimulated the continued learning and innovation in the field, to stay ahead of competitors abroad. However, at a certain point in time a new technique for watch making was developed, digital instead of mechanical, and not in Switzerland, but abroad. The Swiss were then not able to adopt this new technique and lost their position as world leaders of watch making (Glasmeier, 1994, Landes, 1979). An example like this shows that a territorialized asset, in this case local knowledge and know-how on mechanical watch making, can lose its value and is never static in character. Therefore it is important that an area is able to adapt to new circumstances. Storper (Storper, 1997) describes this as the adaptive capability of regions.

So what we have to keep in mind in this research is that assets important for trade and present at a particular place are not necessarily territorialized assets, or assets not available elsewhere and difficult to imitate. To be able to understand the embedding of trade to a place we have to distinguish territorialized assets from non-territorialized assets. Two things are then important to take into account: first, the development path of these assets, and, second, the institutional context in which these assets have been developed or on which they depend.

2.5.2 Development of territorialization: assets and path dependence

Concentration can be both a result of territorial assets and the generator of such assets (Storper 1997, p. 180). A more or less accidental concentration of related activities may, beyond a certain threshold, generate scale economies, consequently attracting more related activities. This is the idea of cumulative causation developed by Myrdal in the 1950s. In this way territorial assets are the result of concentration. Concentration of production may also start with territorial assets that appear to be favorable to a specific economic activity. This is an important notion since it implies we must search for explanations for the existence of certain assets both in history before an industry was concentrated somewhere and as a result of concentration itself. This is a notion well developed in evolutionary economics; it is the notion of path dependence.

Within evolutionary economics the spatial pattern of an industry is at first instable. Over time a more stable pattern establishes (Boschma et al., 2002). This is the result of mechanisms of chance leading to path-dependent developments such as spin-offs and processes of cumulative causation that generate agglomeration advantages, such as superior physical infrastructure connections, a local network of specialized suppliers, local knowledge spillovers, and other territorialized assets. There may be areas with a much better starting position for a specific industry, but this does not mean that an industry will necessarily concentrate there. It might be a matter of chance where processes of cumulative causation can first develop or where more spin-offs appear. Firms are not passive actors; they can move to another location when a specific location does not satisfy their needs. They can also develop and create the favorable conditions they need, and in this way, stimulate further developments in that industry (Boschma et al., 2002). So to understand the current spatial pattern of an industry we have to look at the distribution of assets and the industry itself in the course of time, as well as the mechanisms through which these assets and the spatial distribution of that industry have developed. Key processes to keep in mind are spin-offs and cumulative causation. With this in mind, we should also take into account the role of government investments that create favorable starting positions for industries and might stand at the basis of asset developments.

Of course the spatial distribution of an industry never becomes stable in the sense that a time never arrives where no changes occur. With technical and organizational innovations territorial assets may lose their value and new locations may gain an opportunity to develop as a centre for a specific industry, as is shown by the earlier example of watch making in the Swiss Jura. In evolutionary terms a *window of locational opportunity* opens up (Boschma et al., 2002). Triggers might be new demands that make old industries obsolete and create new opportunities. In addition, a new technique to which an industry cannot adapt quickly enough can lead to its decline and

the rise of new industrial areas. But the productive environment of an area may also favor new developments through the presence of, for example, highly educated labor, the availability of capital or certain raw materials. In this way a continued position at the forefront of an industry may be safeguarded for a region. Windows of locational opportunities do not necessarily lead to the development of new industrial places (chance always plays a role) but can. Over time, however, a window of locational opportunity closes and the spatial pattern of an industry stays relatively stable until new developments in an industry or in the market open new windows of locational opportunities (Boschma et al., 2002).

With respect to the concentration and territorialization of trade and distribution, evolutionary reasoning leads us to think about opportunities for the development of an industry in the past that have created advantages until today. It also makes us aware of possible processes and developments that may make current assets obsolete or open windows of opportunities for other places.

2.5.3 Territorialization: multilevel institutional complementarities of assets

As already mentioned above, territorialization involves assets that are only available at a specific place partly as a result of specific interorganisational and firm-market relations that need geographical proximity to exist. This idea comes close to the ideas developed in the geographical literature on clusters, learning regions and innovative milieus that have been mentioned earlier in this chapter. This literature develops the idea that geographical proximity is important for the circulation and development of knowledge. Local tacit knowledge is especially believed to create competitive advantages to local firms vis-à-vis non-local competitors. One way proximity stimulates knowledge exchange is by enabling informal contacts between employees of local firms and literally enabling inter-competitor spying (Pinch and Henry, 1999). Cultural homogeneity can also stimulate local knowledge exchange. Apart from that, cluster literature points to the fact that when strong social relations exist and reputation is important, transactions are facilitated by less complex and costly contracts. The well known example of the Third Italy supports this idea of the importance of local characteristics very well (Crouch and Streeck, 1997, p.14). In short: proximity matters.

However, it is far too limited to look only at local characteristics and relations to explain knowledge advantages. It is also too limiting to only take knowledge advantages into account as a result of formal and informal institutions. With respect to the first: Bathelt and Glückler (2005) maintain that it is very important for local clusters to absorb knowledge about technological and strategic developments in other (competing) areas. To do so, a cluster needs to develop a common institutional base with other areas, for example, through the structure of a multinational. Frequent contact

within non-local relations of exchange and outsourcing, can also create strong relations and the ability to share tacit knowledge, as has been documented for the region of Baden Württemberg (Grotz and Braun, 1997). In the opinion of Terhorst (2009) cluster literature is too focused on the horizontal complementary nature of institutions within a local context – such as conventions on knowledge sharing, trust, and transacting – while institutions at other scales and vertical relations and complementarities are important. They are not only important for creating assets related to knowledge and innovation, but also to other assets such as flexibility in production. In particular the combination and complementarities of these institutions can create unique assets that strongly attach a specific industry to a place. The example of the Third Italy can illustrate this point.

In the Third Italy complimentary exchange relations are important: people tend to trust each other, contracts are seldom made, and firms do not increase prices much in busy times, as they do not lower them during downturns. All of these institutions are supported by family relations and a supporting small enterprise structure consisting of family members (Lazerson, 1993, Lazerson, 1995). These conventions enable these companies to work flexibly, reducing costs. The assets mentioned are a clear example of locally or regionally territorialized assets. A closer look at the situation, however, shifts our understanding of the assets of the Third Italy. The regional functioning and success of small enterprises in the Third Italy is also the result of institutions and conventions at other spatial levels. National policy has created subsidies and exempted small enterprises from certain legislation (Crouch and Streeck, 1997, p.14). To understand the competitive advantage of small enterprises here, insight into the political and policy practice is necessary. Although a lot of legislation is created at the national level, implementation at the local level is often very poor. There is a *'duality between the 'overt' aspect of the Italian institutional environment – [...] – and the more 'covert' aspect of their inadequacy which enables constraints to be circumvented'* (Regini, 1997, p. 106). Small enterprises can particularly take advantage of this institutional environment: they are much more able to find flexible solutions within an uncertain legislative environment in consultation with local officials than large companies. In the words of Regini (1997) Italy is characterised by an *'interweaving between weak institutional regulation and effective but unstable voluntaristic regulation'* (idem p. 107). The lack of institutional regulation exists particularly at the national level, while voluntaristic regulation is present at a much lower level.

This example illustrates that the functioning and competitiveness of a region and its economy are also dependent on institutions at other levels, especially when institutions at different scales are complementary and reinforcing, a specific region might become very attractive and competitive for a specific industry.

2.5.4 National level institutions

When we look at institutions at the national level, we find literature on varieties of capitalism and business systems that studies the complimentary nature of institutions on a national level. Complementarity means that the presence of one institution, increases the efficiency of another (Amable, 2003, p. 6). This makes it difficult to assess the efficiency of just one institution, since it is always interconnected to another. In case of institutional complementarities different parts of a system influence each other to jointly create a specific result (see for example Crouch and Streeck, 1997, Hollingsworth and Boyer, 1997). Hollingsworth and Boyer (1997) look at the structures of organizations in different countries (more egalitarian or more hierarchical), rules for transactions, and how individual and collective compliance is exerted. This comes to six types of institutional arrangements. Companies are embedded in an environment consisting of a combination of different arrangements each supporting a different kind of production. In some arrangements large volume production might flourish, whilst others might be favorable to small batches. Some arrangements make quick adaptation to new circumstances possible, while others do not. Some arrangements might stimulate competition on quality, while others compete on price. For example, the West-German system, with high labour costs and socially-bounded labour markets, has stimulated companies to compete on quality instead of price, nationally and internationally (Streeck, 1997). Competition on quality is supported by labour organizations and business associations when they work together to improve the staff education levels, technology, products, or the organization of work flows (idem). In contrast to the German case, with an extensive system of on the job training, long-term loans from banks, fewer job changes by labour, and incremental innovations, the USA is characterized by shareholder capitalism focussed on short-term gains. Job changes are frequent, and the strength of American companies lies in their ability to create real innovations. Longer-term product improvements are generally not the speciality of these companies (Streeck, 1997, Hollingsworth, 1997).

Terhorst (2009) highlights that within the *varieties of capitalism* literature, just like with cluster literature, little attention has been paid to the vertical complementary nature of institutions. Capitalism literature has mainly focused on the complementarities of national institutions. According to Terhorst, it is also important to pay attention to the vertical complementarities of national, regional, and/or local institutions, including how these institutions are intertwined with each other. He stresses this importance by stating that the more integrated institutions are at different levels, the stronger the competitive power of an area is (Terhorst, 2009). Therefore, it is important we not only look at a local production system to explain its assets and to investigate territorialisation. We also have to analyse institutional structures present at the regional, national, or supranational

levels, which on their own or in tandem, create territorialized assets adding positively to the functioning and competitiveness of a regional economy, and in our case, the attachment of trade.

2.6 Territorialized production systems and international interaction

The last piece of the analytical framework consists of value chain characteristics. Although an international trade node can be highly dependent on territorially specific resources, relations with other places and areas are essential. In other words: flows transect trade nodes.

2.6.1 Governance in global value chains

The way in which a value chain is organized adds to the geographical attachment of value chain links. Connections between network or value chain members (the architecture, durability, and stability of relations) not only determine the individual network attachment of agents, but also the structure and evolution of the network itself (Henderson et al., 2002, p. 543). Different relationships between actors in a value chain are possible. Gereffi et al. (2005) have distinguished five types of coordination of transactions between links in value chains: market, modular, relational, captive and hierarchic. These governance types in transactions differ on two basic points. First, the balance of power between the actors involved in a transaction, as well as the degree of explicit coordination is different in each type of governance. Second, the governance types differ with respect to the type of information exchanged in the relationship, the complexity of the transaction and the ability to codify the transaction (see Table 2.7).

Table 2.7 Key determinants of global value chain governance

Governance type	Complexity of transactions	Ability to codify transactions	Capabilities in the supply-base	Degree of explicit coordination and power asymmetry
Market	Low	High	High	Low
Modular	High	High	High	
Relational	High	Low	High	
Captive	High	High	Low	
Hierarchy	High	Low	Low	

Source: Gereffi et al. (2005, p. 87)

In principle, price is the only type of information exchanged in a market. Products are generally straightforward so their qualities are clear from the outset and there is no need to make contracts with agreements of specifications. Transaction partners are equal to each other. It is very easy for them to switch suppliers or for buyers to have more than one at the same time. The latter is also the case in a modular relation. At the same time, in a modular relation there is slightly more power on the side of the buyer since the supplier needs to deliver products to the codified specifications given by the buyer. However, the responsibility for the production process always stays with the supplier.

In the case of relational governance of transactions, mutual dependence is much greater. Not only codified, but also tacit knowledge is exchanged. This kind of relationship is found especially in cases where codification of transactions is impossible. Social relations with their conventions of trust and reputation make it possible to exchange tacit information with relatively low costs. In the case of captive governance of relations, power is mostly concentrated at the buyer. The buyer sets the terms to which a product should be produced. The terms are delivered at the supplier in codified form but transactions are still complex since the capabilities of the supplier are not very high, requiring the buyer to give many specifications to the supplier to enable delivery of products the buyers wants. Lastly, in hierarchical governance of transactions, codification of transaction information is difficult. Therefore the supply side is controlled by the demand side. The demand side has organized the supply in its own company; it is vertically integrated. It is important to look at these governance types in order to understand the position of geographical areas within global value chains.

The degree to which an activity within a value chain is embedded in a specific location is different for different governance types. It depends on the degree to which territorialized assets are important to perform the activities of this link, the degree to which investments in social relations are important to accomplish transactions, and the degree to which investments in equipment and staff bounded to a specific location are important (see Table 2.8). The geographical embedding of links in this table is not the same as territorialization since even without any kind of territorialized assets, some kind of (temporary) geographical attachment exists (e.g. when a lead firm has invested in a location). They could have made these investments anywhere (no territorialization) but once made, sunk costs fix activities to this place. Geographical embedding is the result of the strength and importance of territorialized capabilities, shared conventions and institutions in transactions, and the investments by a lead firm in a location.

When there is a relational link in the value chain, capabilities in the supply base are high. These capabilities might be highly territorialized. If so, this adds to the geographical embedding of this link in the chain. Also existing social relations with shared conventions and institutions might add to the geographical embedding.

Table 2.8: The key determinants of geographical embedding of links in value chains with different governance types

Governance type	Importance of territorialized capabilities	Importance of shared conventions and institutions in transaction	Importance of investments in location by a lead firm	Strength of geographical embedding
Relational	+	+	-	Strong  Weak
Modular	+	+/-	-	
Market	+	-	-	
Hierarchy	-	-	+	
Captive	-	-	+/-	

These conventions and institutions are a kind of network knowledge that is built up through personal experience. Workers may take this experience with them when changing jobs, and in this way, spread this knowledge geographically. However, in the words of Malmberg (Malmberg, 2003, pp. 154-155) *“restricted mobility (or even spatial fixity) of people”* can keep this network knowledge geographically concentrated and fix the geographical structure of two distant links in the value chain.

The importance of investments in the location by foreign lead firms, does not seem to be great in the case of relational as well as modular governance, since in these cases capabilities at the supply base are high. However, investments in social relations can be seen as very big in the case of relational governance, and even in modular and market relations conventions are not absent altogether (Brown and Duguid, 1991). Modular and market relations theoretically don't include intense social contact since transaction-related information is basically price information. Other information needed can easily be codified. However, the codification used, needs to be understood. In that sense, some kind of shared conventions are still needed in a modular and to a lesser extent also in market transactions. In case of relational and hierarich governance these investments in understanding may even be larger as codification of transactions is very difficult. The need for more or less specific shared conventions to enable transactions means that every transactional relation implies a kind of investment in building or understaning these conventions. In the case of a hierarchy these investments become more prominent as it includes formal training, acclimating employees to corporate culture, and training for specific tasks. Of course this formal learning might also result in informally shared conventions as employees become part of a professional community of practice (Brown and Duguid, 1991), but the difference is that within a hierarchy a lot of ways of doing things are in de end backed by formal hierarchical authority. In the case of all other types of governance, exchanges cannot be compeled by a hierarchical authority. Hierarchical governance presupposes direct investments in people, building,

and machinery. The sunk cost for investments in people and capital goods create, at least a temporary embedding in a location. In the case of captive governance of relations, less investment in the location is expected to be present. The capabilities at the supply base are low, but transactions are easy to codify. Therefore, little knowledge is needed at the supply base. However, some investment might take place, for example to learn the supply base how to read and understand the codification of transactions the lead firm uses. This eventually creates some sunk costs when the lead firm changes its supply base. To conclude, to understand the relation between the trade node and the wider value chain, it is important to take the investments in and existence of shared conventions into account as they influence the embedding of trade relations.

Firms almost always have relations in two directions into the value chain: upstream and downstream. It is possible that the relations they have with their supply side are different from demand side relations. The combination of the relations of a regional economy, with supply and demand in the value chain at other locations, helps create the position of a regional economy. When a region has, for example, a hierarchic or a captive relation with demand, it is clear its position is not very strong. Its capabilities are not very high and it is relatively easy for the demand side to shift orders to a different location in search for the most favorable production conditions. In the case of market or relational governance, this appears to be more difficult since with relational governance of transactions, trust, and conventions built up over years are important to settle transactions. Therefore a dependent hierarchic or captive relation to other parts in the value chain involves a weaker position in the chain than a relational interaction. The weakness of a supplier position in a market or modular exchange relationship comes not so much from the lack of territorialized capabilities and assets (these can be, on the contrary, very high), but from the fact that if there are no such territorialized assets involved, it is much easier for the demand side to change to a new supplier elsewhere; the costs to do so are relatively low. Here the strength of the supply side really has to come from territorialized assets: that is what geographically attaches a value chain. A hierarchic or captive relation towards a lead firm elsewhere does not necessarily imply an easy shift to new locations in the short-term. Although capabilities in the supply base are low, the lead firm might have invested quite a bit of knowledge and equipment in the supply side. In the short term, sunk costs related to relocation of supply keep activities at a location. Nevertheless, lead firms will always look for better (often cheaper) opportunities elsewhere.

In general, firms that contract out are the most powerful in an exchange relation. However, what is contracted out (production or trade or distribution) differs in each situation. Three basic routes of contracting out in value chains have been distinguished. Gereffi (1994) uses the term producer-driven chain to describe a situation in which producers mainly coordinate and organize the activities in the chain. The best

known example of such a chain is that of the capital and technology-intensive car industry that is driven by large producers who coordinate production and trade. These large producers determine the terms of trade. Trade creates and reaches markets these producers want. In a consumer-driven chain, (Gereffi, 1994) large retailers and brands coordinate production and distribution not necessarily with direct ownership, but with strong coordinative power. Some authors (Gibbon, 2001, Ziegler, 2007) have proposed distinguishing a trader or middleman-driven chain as a third kind of chain. In this case middlemen such as wholesale traders are the key players that link producers and consumers in a worldwide system, and are the centre of coordination and control of a value chain.

Whoever drives a value chain influences the dependencies within the chain and makes the position of specific activities within the chain more understandable. In general the strongest position in the chain seems to be the driver. Nevertheless, this driver is also limited in its possibilities, due to competition from other companies, its dependence on territorialized assets and its investments once made.

The governance types discussed above describe vertical relations within the chain. Of course there are also many horizontal relations possible within a specific link in the chain. For example, two competing wholesale traders may work together in a government-directed lobbying group. Producers may also cooperate to create a marketplace to sell their products. Literature on business systems describe all kinds of horizontal relations that can exist such as networks, communities, associations, and markets. This brings us back to the literature on clusters and varieties of capitalism. The issue in the literature on value chains is on the vertical relations in the chain, but these chains interact with local systems where many different horizontal (as well as vertical) relations exist. Sturgeon (Sturgeon, 2003) describes the double function of Silicon Valley as both the breeding place for new technology through tacit knowledge exchange, and a place where this same knowledge is codified, making coordination of global production networks possible. Here a local production system, where local conventions, hierarchies and modular relations play a key role, interacts with and drives a global value chain where captive and hierarchic relations are much more important.

With respect to the relations between value adding activities, it is important to note that the type of governance between these activities might also be related to the phase in a product's life cycle. In the earlier phases of the product life cycle there may simply not be enough possibilities for trade intermediation for producers. This is something De Jong (De Jong, 1981, pp. 190-195) has mentioned. In the introduction phase of a good, vertical integration takes place out of necessity. There are still none or not enough suppliers of basic materials for the new product and time presses on a growing market. Producers often take up supply and sales themselves. They might also do this out of strategic consideration that they want to keep production knowledge

secret. In the expansion phase the increased scale of production will lead to disintegration in order to take advantage of economies of scale that specialized producers can offer. When expansion is over, it becomes attractive to integrate backwardly in order to control the supply of basic materials, since prices may rise as a result of increased demand and scarcity. The question of forward integration into trade and distribution revolves more around power and strategic issues. In the maturity phase business failures and takeovers are the main change in the organization of the value chain. We could say that in this phase the market is set, product qualities have become well known (no longer tacit) and the role of trade becomes more focused on marketing products, than of gaining tacit product information. Important to notice as well is that strategic considerations of actors might influence the organization of a value chain. These are not mentioned in the framework of governance of value chains as developed by Gereffi et al. (2005).

Interrelations of global value chains and local industrial systems may take many forms depending on what drives the chain; the organization of the local production system, the territorialized assets of the local system, the product life cycle phase and related strategies of firms. The role of the local system can only be understood in the context of the value chain in which it operates. Therefore, to understand the role of the Dutch trade node it is important to understand the interaction between the Dutch production system of trade and the global value chains transacting it.

2.7 Conclusion

This chapter looked at the localization and territorialization of trade in order to create a theoretical framework for analyzing the position of the Netherlands as an international trade node in global value chains, and to be able to answer the three research questions. To answer the first question:

- (1) What trade activities and trade role lay behind the re-export data in the Netherlands and to what extent does the Netherlands play the role of a coordination and control centre in the trading function of international value chains?*

I will investigate the activities that trade companies and companies related to international trade through the Netherlands carry out, how the chain is organized in which they carry out these activities, and what role they play. I expect coordination and control functions to be limited located in the Netherlands. Intermediary traders are mostly not the lead firms of a chain. Only parts of the chain might be controlled and

coordinated by traders or trade-service providers as lead firms outsource tasks. This will be the basis to answer the second question.

- (2) *Through which processes are these trade activities attached to the Netherlands and to what extent are they in such a way attached that they cannot be easily relocated?*

To answer this question it is important to first look at the location factors needed to perform the trade services found in the first question. After that, the territorialization of these factors can be found by investigating how these factors have been created or developed, and on what they are based. Lastly, one must take relations within the value chain into account. Together this gives an idea on how and to what extent these trade activities are embedded in the Netherlands. The more important territorialized assets are for an activity, the stronger the embeddedness of this activity is supposed to be. But I will also look at what is actual happening: a geographical shift of activities indicates that assets that are important change or that they are not strongly territorialized (anymore).

The theory set out in this chapter leads to several tentative answers to these questions. First the discussion regarding the many activities and roles involved in trade and production allows us to conclude that no general answers can be given. These answers depend on the activity and world of production involved. More importantly, I expect the relation between the world of production and trade activities to be mediated through the organization of the value chain. A product, like flowers of the Industrial World, might be traded on a market *or* within a network. In both cases the activity of the trader is different. In the former case, products are probably bought at stock, where in the latter case, buying takes place at order. For the flower trade in the Market World I expect the availability of cultural, linguistic and local market product knowledge as important to be successful. Other essential factors in analysing the concentration of the cut-flower industry in the Netherlands are related to other activities of the same value chain located here like floral production and propagation. Though this production and propagation occurs in other parts of the world, I expected a connection between international trade and these other value added links to exist in the Netherlands and to be part of the explanation for the concentration of the import and subsequent export of flowers in the Netherlands. Knowledge needed to operate successfully in the Market World might be part of a local cluster. In the case of relational governance of trade in the clothing sector I expect these local factors to be important as well, but I also expect the availability of trade network connections to be more important due to factors like in-depth product sourcing knowledge. This could be knowledge connected to a local trade milieu but it can also be something more organizationally versus geographically bound. For the Industrial or Market World and hierarchically organized value chain of high-tech products, I expect juridical infrastructure, trade agreements, taxes, physical

infrastructure technologies, labour costs, and customs practices to be important location factors. Although in the case of the Market World or the Interpersonal World, when logistic demand are more complex, localized knowledge of logistics may also play a role. An overview of Dutch economic and trade policies and the institutional structure of the Netherlands will, when placed in the light of the findings of the cases, make it possible to draw conclusions on the strength and weaknesses of the Dutch trade specialization; the subject of the third research question.

- (3) *What are, in light of the answers given to the previous questions the strengths and weaknesses of the production system of international trade in the Netherlands?*

The assets that a location has for trade in different types of goods and the assets on which the different types of trade nodes are built, most likely have quite different origins and histories. In this way different types of trade nodes are expected to be embedded through different assets and processes in the Netherlands. However, as we will see in Chapter 4, this is something that is neglected in the debate on the Dutch trade node and the focus of Dutch trade policy has been quite limited paying mostly only attention to the distribution node. Above that, policy for the Dutch trade node has not been fine-tuned for specific types of goods. However, the case studies will show that it could be very relevant to make this distinction between different trade nodes and types of goods. Therefore this study can be seen as a plea for a more case specific and focused trade policy and theoretical discussion on trade.

Now that the framework for the empirical part of this study is set and the hypotheses and objectives are clear, I will turn to the methodology and empirical design. This is done in the next chapter.