

Master programme in Economic Growth, Innovation and Spatial Dynamics

GLOBAL FLORICULTURE INDUSTRY VALUE CHAIN. POSITION OF THE UKRAINIAN FIRMS IN THE FLORICULTURE BUSINESS.

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Abstract: Floriculture industry is very dynamic in its varieties and trade volumes demonstrating 6 to 9 % of annual growth. It gets also more and more diverse in terms of global actors. Now there are about 120 countries actively involved in the floriculture industry as global manufactures with the Netherlands as an epicentre of world flower production and distribution. In that respect, analysis of the floriculture industry in terms of global value chain changes is an interesting and relevant issue to address as it has gone through some global conversion and is still shifting in the direction of cost and production optimization. First aim of the research is to conduct an analysis of the main processes that shape the global value chain structure and functioning using an empirical illustration of the floriculture industry. The study provides insights on the industry's key actors and processes from the point of production to the final consumption destination. However, further scope of the research is narrowed down to the analysis of the Dutch floriculture sector, as the main hub in the global floriculture industry value chain, and the investigation of the potted and garden plants chain, as it demonstrates considerable differences from the one of cut flowers. Another aim of the research is to proceed from the macro analysis of the global industry actors and global value chain to a micro level perspective in the empirical analysis that was done to analyse Ukraine as a consumption hub in the industry value chain.

Key words: Floriculture industry, global supply/value chain, transaction costs, institutions, Netherlands, Ukraine

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I. INTRODUCTION

"Where beauty meets the business"...
(FloraHolland)

To start with: flowers and plants play an important role in people's life. "People were, are and always will be buying flowers".

In that respect we can judge pragmatically – plants are needed for our ecology and living environment; realistically – people buy floriculture products because of the culture and traditions, to express themselves in the line with their lifestyle; or romantically – people use to express their feelings with flowers...

Floriculture industry can be defined as cultivation/production and marketing of a wide variety of plants and planting material: starting from parental products like plant parts and cuttings to the end product for the market like cut flowers, foliage, potted plants, garden plants, nursery stock (trees), flowering leafy, annuals, perennials, flower bulbs and tubers. (van Uffelen, 2005) The industry is very dynamic in its varieties and the trade volumes. Before the global economic recession it demonstrated constant growth of 6-9 % annually (van Hemert, 2005: 2). It gets also more and more diverse in terms of global actors. Now there are about 120 countries actively involved in the floriculture industry as global manufactures (Export-Import Bank of India, 2006), with the Netherlands as an epicentre of world flower trading and the share of 52,3% (van Hemert, 2005: 3) in global export. Some economies like Netherlands, Columbia, Israel are dependent on the floriculture industry. Since, the production in the traditional recognized centres – the Netherlands and the USA – have reached the threshold level, developing countries have emerged as additional production centres in the past few decades. Countries like Ecuador, Kenya, Israel, Costa Rica, Thailand, Poland, India, China, Republic of Korea and Mexico have emerged recently as global producers and exporters of plants mainly to the USA and Europe. (Export-Import Bank of India, 2006) In that respect, analysis of the floriculture industry in terms of global value chain changes is an interesting and relevant issue to address as it has gone through some global conversion and is still shifting in the direction of cost and production optimization.

First aim of the research is to conduct an analysis of the main processes that shape the global value chain structure and functioning using an empirical illustration of the floriculture industry. The study provides the insights on industry's key actors and processes from the point of production to

the final consumption destination. However, further scope of the research is narrowed down to the analysis of the Dutch floriculture sector, as the main hub of the floriculture industry, and the investigation of the potted and garden plants chain, as it demonstrates considerable differences from the one of cut flowers. *Another aim* of the research is to proceed from the macro analysis of the global industry actors and global value chain to a micro level perspective. Empirical analysis of this study was done to analyse Ukraine as a consumption hub in the global floriculture value chain and to answer *study's research question: "What is the position of Ukrainian firms in the global floriculture business and what are the perspectives for their development?"*

Ukraine is a relevant unit for the empirical analysis in the context of global floriculture industry: physically it is a big market with rapidly growing demand, though institutionally it is unfavourable environment for trade and business. This research aims to attract attention of all the value chain actors to the opportunities Ukrainian floriculture market bears as well as to provide the insights on its possible barriers and risks. Moreover, personal interest of the author in the landscaping industry served as a motivation to extend personal knowledge in the floriculture business and to share it with other interested parties.

To meet the study objectives the following research structure is applied:

Section 2 presents the previous research done on floriculture industry and the theoretical frameworks applied in these researches. Taking into consideration the accomplishments and findings on the previous research, theoretical framework for this study is introduced and elaborated. Section 3 describes methodology used for the empirical analysis. Section 4 introduces the global floriculture industry value chain structure, processes and patterns with the further narrowed elaboration on the Dutch industry competitiveness as a key hub in the potted indoor and outdoor plants value chain. Section 5 contains empirical analysis for the Ukrainian industry stakeholders' position in the global plants value chain and attempts to make some judgements on its perspectives. Finally, section 6 summarizes the main findings of the study and discusses its applicability and the implications for further research.

II. PREVIOS RESEARCH AND THEORETICAL FRAMEWORK

During the last decades floriculture industry has been constantly shifting in the direction of cost and production optimization. It has also become more global in the geographical and stakeholders' respect. This led to an increased interest among scholars – how such complicated chains should be managed taking into consideration the perishability of the product? Moreover, what are the factors that are driving geographical diversification and specialization? Is this the cost of production in the traditional centres like Netherlands or the saturation of the traditional markets like Western Europe? What are the factors for future success and further industry growth?

Few studies were done to identify the position and strategic opportunities for recently emerged hubs in the cut flowers value chain like Kenya, Tanzania, Ethiopia, Nepal (Gebreeyesus & Iizuka, 2010; Gebreeyesus & Senoble, 2009; Maangi, 2008; Yanai et al., 2007) as well as studies done on the agriculture value chains (Slingerland et al., 2006; van Plaggenhoef, 2002; Dolan and Humprey, 2000). These researches are mainly emphasising the importance of sustainable quality management and regulation systems in the supply chain as well as acknowledge the growing importance of networking and cooperation of the value chain's stakeholders in logistics, marketing, innovation, research and development.

Several studies have attempted to place the patterns of the floriculture industry development in the theory of global value chains, supply chains, transactions cost theory and competitiveness theory.

The study by van Uffelen and de Groot (2005) is focused on the production, trade and consumption patterns in the global floriculture value chain. The shift in the consumption and production trends globally determined a new, more complicated and intricate, supply chain with increased number of actors. Wijnands (2005) acknowledged in his research that the spread of production, trade and consumption of the floriculture products all over the world "makes it one of the few truly global supply chains" (Wijnands, 2005: 7). Studies done by this author are mainly concentrated on examining the perspectives of the industry development through cooperation of the main industry hub – Netherlands as the marketing and financial service provider centre and developing countries like Kenya as the production centres. The main objective of the author's (2005) study was to examine the competitiveness and the capabilities of the floriculture industry in terms of key exporters and importers. To explain its' organization and management the author used a broad theoretical framework of international trade theory, industrial economics and

competitiveness theory (Porter's theory and transaction cost theory), strategic management and internalization theory, and governance of global commodity chains theory. The competitiveness and strategic management framework was applied as a proper tool for analysing the micro level perspective of the industry – individual markets and firms, while the international trade theory and governance of global value chains theory was used to explain patterns of the global supply chain structure and interactions. Two other studies by Wijnands (2006, 2007) were mainly relying on transaction cost and institutional theory. The study (2006) was to examine whether Kenyan growers face different transaction costs for selling their production through the auctions versus direct marketing channels, while another study (2007) was investigating institutions' influence on the general development of the floriculture industry in developing countries. These areas of the research are very helpful in understanding how and why industries are placed in the global value chains.

Product characteristics and physical distance between the production and consumption centres place a big challenge for successful supply chain management in terms of marketing and logistics, distribution and consumption channels. Few researches were examining the importance of the logistics, e-commerce and ICT in the supply chain management (Deneux & de Vlieger, 2006; Delfman et al., 2002), some studies were done for the floriculture industry particularly (van de Vorst et al., 2006; van Hemert, 2005). Van de Vorst et al. (2006) discussed the structure of ornamental plants' supply chain network and placed it in the concepts of logistics orchestration. The study concluded that in the time of industry going global and the Netherlands loosing the share in the physical production, the advanced logistics and the development of Dutch floriculture sector as the main financial and marketing service provider might be an answer to the industry competitiveness and sustainability. The study by van Hemert (2005) investigated the strategic opportunities for the Dutch flower industry and its' clusters in strengthening ones position in the external value chain using B2B models concentrated on virtual market places. Applying Porter's diamond model for Dutch flower clusters van Hemert evaluated strategic strengths and opportunities for Dutch emarketplaces and industry development. Similar approach was used in the research by Batt (2006). The author made a qualitative comparison between four exporting countries Australia, Colombia, Israel and Netherlands using eleven similar variables. Author stresses Porter's finding that the sustainable competitive advantage rarely comes from country's natural resources endowment, but from the capacity of the industries to innovate and upgrade constantly.

Taking into consideration accomplishments of the previous researches and the insights from empirical findings, following theoretical framework will be applied for this study:

Global value/supply chain theory

Transaction cost theory

Global floriculture industry

Institutional theory

Strategic Management theory

Theoretical framework

Global value/supply chain theory

Ukrainian floriculture business

Dicto

Figure 2.1. Theoretical framework of the research

Source: The author

Global value/supply chain theory is the main theoretical framework of the research. As it was mentioned before the supply chain of floriculture industry is very complex and relatively diverse, though still strongly connected to the main centres and managing structures. Emphasizing again the characteristics of the product, the success of the industry greatly depends on the successful supply/value chain management and governance. Touching on broad and important range of aspects in the supply chain like logistics, marketing, finance and organizational behaviour allows analyzing the industry structure and functioning on the global/macro level. However, we should acknowledge that the position in the global context determines the characteristics of the micro unit of the analysis. Institutional and transaction cost theories are applied on both macro and micro levels of the research. Better understanding of the transaction costs between different supply and marketing channels can lead to deeper insights on what are the driving forces of the value chains. Institutional theory framework is useful for all kind of industry/business analysis as any economic activity is embedded in social relationships. Finally, the strategic management and competitiveness theoretical framework is a useful tool in approaching more micro level of the analysis – Netherlands as the main value chain hub and Ukrainian firms' position in this value chain as a final consumption hub.

2.1. Global value/supply chain theory

Theory of the global value chains can be seen as an outcome of scholars' understanding globalisation and the changing nature of economic integration, international trade and industrial organization. According to Gereffi et al. (2005) value chain is "the process by which technology is combined with material and labour inputs, and than processed inputs are assembled, marketed and distributed". (Gereffi, 2005: 79) These value chains are getting more and more fragmented and geographically dispersed meaning the physical separation of different parts of the production process. Such fragmentation allows production in different countries to be organized in efficient production networks. (ibid: 80)

The value chain theory highlights that for many industries access to international markets is gained merely not through the designing, producing and marketing of the new products, but through the entry into international design, production and marketing networks. This is particularly the case with global floriculture industry where the new emerging hubs (developing countries) acquired new production capabilities and gained access not only to the new markets, but to the new marketing channels. The supply-buyer interactions foster the learning effects in this global value chain as well. (Humprey, 2004: 2)

Gereffi et al. (1994) introduced the framework of 'global commodity chains', where the role of new emerging production hubs and the importance of new global buyers in the global value chains were emphasized. Mainly retailers and brand makers were named as key drivers in the formation of globally dispersed and organizationally fragmented production and distribution networks. The author introduced the term 'buyer-driven global commodity chain' to stress how global buyers use full coordination to facilitate the creation of highly competent supply-base upon which global production and distribution systems could be built without direct ownership. (Humprey, 2004). Gereffi (1999) gives the example of the clothes global production systems that are frequently developed by non-manufacturing firms involved in the design, marketing and retailing. These are the global buyers – firms, large retail chains, supermarkets. Their critical role in the value chain is designing, logistics and sourcing. Often when retailers buy finished products they specify how the product should look like (design) and how it should be produced (process specifications, quality control, compliance with labour and environmental standards) and the delivery aspects. Therefore the coordination takes place across the whole value chain even when the global buyers are purchasing only the final products. In that respect separate ownership is a distinct feature of global economy. (Humprey, 2004: 4) When the global value chains link together specific buyers and specific suppliers, it makes easier to overcome the barriers in the industry. Knowledge about the market, production and logistical processes can be acquired. In that respect the mutual gains are obvious – global buyer offers significant order volumes and 'upgrading' support that is directly relevant to the needs of the firm for the market it is supplying. (ibid: 12) This is particularly the case with global floriculture industry value chain and its recently emerging hubs. The importance of the global buyers in the chain will be illustrated in the 4th section of the study.

Coe et al. (2004) names the 'strategic coupling' of the global production networks of firms and regional economies the driver of regional development through the process of value creation, enhancement and capture. Regional development here is "a dynamic outcome of the complex interaction between territorialized relational networks and global production networks within the context of changing regional governance." (Coe et al., 2004: 469) This is reasonable to assume that 'strategic coupling' facilitates not only regional, but industrial development as well. Number of value-added activities may be developed in the industries as the learning and cooperation processes within the value chain facilitate a wide range of production and entrepreneurial activities. The study argues that economies of scale and scope embedded within specifics regions are advantageous to the regions that can complement the strategic needs of trans-local actors within the global production networks. Here global production networks are defined as "the globally organized nexus of interconnected functions and operations by firms and non-firms institutions through which goods and services are produced and distributed". (ibid: 471) Respectively, new actors in the industry can benefit from the 'strategic coupling' in the production networks if they posses required endogenous capabilities to serve the needs of the global value chain actors. Such global production networks integrate firms, regions, countries through the development of different forms of equity and nonequity relationships that erase the traditional organisational boundaries. Being influenced in part by regulatory and non-regulatory barriers and local socio-cultural conditions they create complex geographically dispersed global value-added and product supply chains.

There is a related field of the research that causes great interest among value chain actors and scholars as well – the global value chain governance and the supply chain management. The importance of the efficient supply chain management can't be overestimated if the peculiarities of the floriculture products are emphasized again. Efficient supply chain management is extremely complex and challenging task today due to the expanding products variety, short product life cycle, globalization of the business processes, and continuous advancement in ICT. The last one – the development of Internet and computer technologies, has contributed a lot to the improvement supply chain management. It enabled actors in the supply chain to enjoy continues flow of information and knowledge sharing, reduced the cost of the transactions, serving the customer needs in a more direct

manner. (Lee, 2002: 105) Anyway that is not the key to a success as today many industries even having the access to the global technology demonstrate poor performance. The success of the particular industry depends on the right supply chain strategy.

First of all, it is useful to introduce the definition of the supply chain management (SCM) by the Global Supply Chain Forum: "Supply Chain Management is the integration of key business processes from end user through original suppliers that provide products, services, and information that add value for customers and other stakeholders" (Lambert & Cooper, 2000: 66). SCM is a complex process that requires managing not only B2B relationships, but a complex network of numerous businesses and relationships from the point of product origin to the point of its consumption. (Figure 2.2.) Managing the supply chain to the point of consumption is the main interest for the actors in the supply chain because who has the relationship with the end user gains the power in the supply chain (ibid: 68).

Information Flow Manufacturer Tier 2 Tier 1 Consumer/ Customer Supplier Supplier Logistics End-user Marketing Purchasing RODUCTION FLOW Production Finance R&D Supply Chain Business Processes CUSTOMER RELATIONSHIP MANAGEMENT CUSTOMER SERVICE MANAGEMENT DEMAND MANAGEMENT ORDER FULFILLMENT MANUFACTURING FLOW MANAGEMENT SUPPLIER RELATIONSHIP MANAGEMENT

Figure 2.2. Supply chain management: integrating and managing business processes across the supply chain

Source: Lambert and Cooper (2000) 'Issues in Supply Chain Management': p. 67

PRODUCT DEVELOPMENT AND COMMERCIALIZATION RETURNS MANAGEMENT

Cooper and Lambert in their study elaborate on supply chain network structure that consists of the member firms and the links between these firms. Business processes that take place in these networks are the activities that produce the specific output of value to the customer. How many of these processes need to be managed depend on the complexity of the product, number of suppliers and the availability of raw material. Management should also decide on what level of partnership\integration between the supply chain actors is appropriate for the particular supply chain links. The authors point out that there are so many interactions between different companies taking place across the supply chain that it is important to distinguish between the primary and supporting members. (ibid: 67-70) They define primary members of the supply chain as "all those autonomous companies or strategic business units who carry out value-adding activities (operational and/or managerial) in the business processes designed to produce a specific output for a particular customer or market", while supporting members are "companies that simply provide resources, knowledge, utilities, or assets for the primary members of the supply chain" (ibid: 70). However, some companies can perform both functions. Managing such complicated supply chain requires continuous information flows between all members of the supply chain, which in turn helps to create needed product flows.

Several researches emphasized the importance of the right supply chain strategy implementation depending on the particular characteristics of the product (Lee, 2002; Lambert & Cooper, 2000; Fisher, 1997). Lee in his study suggests using the 'uncertainty framework' to build the right supply chain strategy. Demand and supply side of the supply chain are two main uncertainties faced by the product. The solution suggested by the Fisher (1997) is matching of the supply chain strategies to the right level of the product demand uncertainties. He claims that most problems come from the mismatch between the type of the product and the type of the supply chain. To state the type of the product it is important to distinguish between functional and innovative products. Functional products (like flowers and plants) are available in wide range and assortment as they satisfy the needs that don't change much over time. The have stable and predictable demand that attracts high competition and leads o low profit margins. To avoid that, functional products producers try to innovate – introduce new fashion trends or new varieties to motivate the customer. Nevertheless innovation makes the demand less predictable. Highly innovative products have opposite characteristics that functional ones and require different supply chain strategy. To explain this Fisher suggests that supply chain performs two functions: a physical function and market mediation function. The first one is responsible for assembling the final product and delivering it to the final point in the value chain. And the market mediation function is the ensuring that the variety of the products that reach the market are able to satisfy its' needs. Both of the functions require particular cost spending. As the mediation cost for the functional products is relatively low because

of the demand predictability, producers can concentrate on the production cost reduction. The price sensitivity of the functional goods makes the constant information flow and coordination between the suppliers, manufacturers and retailers crucial to meet predictable demand at the lowest cost. (Fisher, 1997: 107-106) Advancement of ICT facilitates this coordination and the efficiency in the supply chain. Lee (2002) argues that to achieve the efficient supply chain for the functional products "non-value-added activities should be eliminated, scale economies should be pursued, optimization techniques should be deployed to get the best capacity utilization in production and distribution, and information linkages should be established to ensure he most efficient, accurate and cost-effective transmission of information across the supply chain" (Lee, 2002: 113). The author points out that efficiency can be gained not only by the manufacturing excellence, but also having a highly effective logistics system.

2.2. Institutional and transaction cost theory

While global value/supply chain theory is applied mainly to the macro level of the research analysis, institutional and transaction cost theory allows examining the factors that bridge the macro and micro perspective of this study: the factors that shape the decisions of the value chain actors and determine its functioning.

The concept of the global value chains governance is closely associated with transaction cost and institutional theory that provides valuable insights on the complexity of the firms' interactions across the global value chain. Researches done by Humprey (2004), Gereffi et al. (2005), Sturgeon (2008) put this theory as a base for understanding the governance of global value chains as coordination problems arise because of the transactions complexity and institutional difference between the actors in these chains.

Two main conceptual insights provided by the transaction cost theory are the governance of exchange between the economic actors is costly and the governance form can facilitate the exchange depending on the characteristics of the transaction environment. The management choice of governance form in the supply chains affects the costs of monitoring and administration. (Leiblen, 2003: 939)

In the supply chains transaction costs are namely the costs of discovering the market information, negotiating and contracting costs, as well as specifying the details of transactions costs, etc. Limiting transaction costs lies at the heart of any supply chain management. Sometimes it can be achieved by vertical integration and bringing separate activities in-house (Gereffi et al., 2005: 80), however, this should assume the alternative costs of administering vertical flows of products

and organizing factors of production. (Hobbs, 1996: 16) Some researchers find that spatial and social proximity can substitute vertical integration. (Sturgeon, 2008: 13) Nevertheless, these costs can't be completely excluded from the economic exchange and they arise at any form of economic organization. That brings the necessity for further concept definition.

The key concepts of the transaction costs analysis are bounded rationality, opportunism, asset specificity and informational asymmetry. Bounded rationality means that companies as the profit maximizing entities are governed by bounded rational managers that are limited in their skills and knowledge to predict and evaluate all the profit possibilities. Opportunism stands for the ability of businesses and economic individuals to exploit the situation for their own benefit. (Hobbs, 1996: 17) Such situation often arises where small number of bargaining aspects takes place. That largely explains the crucial role of the contracting relations. With the increasing number of market contingencies uncertainty and threats of opportunism raises among the industry actors. In that respect simple market contracts provide efficient low-cost mechanism for managing economic exchange. (Williamson, 1979) Information asymmetry arises when the parties of the economic exchange have unequal access to the private information, while public information is usually generally available. This can be explained by the power asymmetry of the actors across the value chain and opportunistic behaviour – information is hidden prior to transaction. (ibid: 18) Asset specificities affect firm's ability to implement product market strategies and to capture economic value. Williamson identifies six types of asset specificities: 1) site (location facilities), 2) physical asset, 3) human asset, 4) dedicated asset (specific investment in the production), 5) brand name capital, and 6) temporal asset (investments to facilitate timely response to the market needs). (Leiblen, 2003: 942-944)

Transaction cost theory argues that these problems can be eliminated by the appropriate supply chain governance structure. Gereffi et al. (2005) suggests that there are three main determinants of value chain governance patterns: complexity of transactions; codifiability of information; and capability of the suppliers. Firms are constantly trying to reduce the complexity of transactions. This can be achieved through development of technical and process standards that codify information and allow "clean hand-offs" between industry actors. This allows the modular design of the products in the value chain, where suppliers and customers can be easily linked and de-linked, resulting in a flexible network structure. (Gereffi, 2005: 84-85) In such networks intangible resources like reputation, trust and culture play important role. The same time, the integration of new suppliers into global value chains increases coordination costs. As producers in the developing countries are expected to meet requirements that frequently do not yet apply to their

domestic market. This creates gap between the market capabilities and raises the need for monitoring and control required by buyers. (ibid)

Gereffi et al. (2005) distinguishes between three types of global value chain governance: modular, relational and captive types. These types stand for the degree of collaboration and power asymmetry in the value chains. In modular global value chains power asymmetry is relatively low because costs of switching customers and suppliers are low and actors in the chain can work with numerous partners. There is considerably high extend of coordination in the relational global value chains usually achieved through non formal dialogue between roughly equal partners; while in the captive value chains there is a high degree of power asymmetry and coordination as lead firms impose considerable control on the suppliers. (ibid: 83-88)

Study by Jackson and Deeg (2008) elaborate on how institutions shape organizational structures and strategies across the value chains. We can think of institutions as formal organizations like government agencies, trade and labour unions, and as rules that govern the society. These rules can be formal (codified legal regulation) and non-formal (societal norms and even culture). (Sturgeon, 2008: 25) This is a useful tool for the analysis of international trade, especially between institutionally different countries like Ukraine and Netherlands. "Institutions exist in distinct national configurations ... that generate the particular logic of economic action and competitive advantage related to the complementarities among those institutions" (Jackson & Deeg, 2008: 541). In that respect institutions can be seen as constraints, but the same time as a resources for solving key problems of economic coordination.

International business perspective view institutions in terms of institutional distance between countries involved in business practices. It stresses the importance of culture, behavioural aspects and regulation. Institutional distance increases transaction costs, makes it harder to get reliable information and discourages investment from institutionally distant country. It requires additional costs for coordination business activities. In countries like Netherlands and Germany behaviour of the companies is to a great extend coordinated through non-market mechanisms. In that way we can talk about comparative institutional advantage as this hence the interest of economic actors and their capabilities. Where institutional environment is too "weak" firms should substitute by the own resources and capabilities. (ibid: 544-549)

2.3. Strategic management and competitiveness theory

Acknowledging the fact that floriculture business is very diverse and highly competitive the strategic management and competitiveness framework is required to be able to make the

judgements on general success factors of the industry actors. Particularly, to address the success of Netherlands as a main floriculture industry value chain hub and the perspectives for the Ukrainian companies in this business as a final consumption hub. This section of the theory won't be elaborated deeply as this is not the main focus of the research. However, the strategic planning, implementation and control of the industry actors shape the business processes in any value chain and has to be accounted. Moreover, it will be a useful tool for the SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis for the Ukrainian floriculture business in the fifth chapter of the research.

Process based management approach by McAdam and McCormack (2001) underlines the relationship between managing business processes and managing supply chain. Business process management is "a structured approach to analyzed and continually improve fundamental activities such as manufacturing, marketing, communications and other major elements of company's operation." (McAdam & McCormack, 2001: 114) The research suggests that to stay successful in the global business companies have to adjust and innovate business strategies constantly because of the growing competition and integrate in life all the activities that facilitate products and services competence.

Porter's concept of "value chain" presents the integration of firm's functions within the value chain. (Figure 2.3) Porter viewed the firm within the value chain as a collection of key functional (primary) and supporting activities. He claimed that maximizing the linkages between these activities companies maximize the efficiency of the firm. In that respect they gain the margin available for increasing the competitive advantage and adding the shareholder value. (ibid: 115-117)

Support
activities

Human resource management
Technology development
Procurement
Inbound Logistics

Sales & Outbound Logistics
Marketing

Primary activities

Figure 2.3. Porter's value chain

Source: McAdam and McCormack (2001) 'Integrating business processes for global alignment and supply chain management', p. 117

Approaches on the industry/firm competitiveness are widely known from the Porter's works (1980, 1985, 1990). Particularly Dutch horticulture business was analyzed by Porter (1990) in

diamond model.(Wijnands, 2005: 19) Diamond's determinants are: 1) factor conditions, 2) demand conditions, 3) related and supporting industries, 4) firm strategy, structure and rivalry, plus Porter adds chance and the role of government, similarly to the 'five forces' framework (2008).

Fourth and fifth chapters of this research attempt to provide an empirical illustration of the above mentioned research findings and theoretical concepts.

III. RESEARCH METHODOLOGY

Method

The main objective of this study was to provide the insights on global floriculture industry functioning and particularly to evaluate the position and perspectives of Ukrainian industry stakeholders in the plants trading business. For this purpose broad theoretical framework was aggregated with the previous research, available global and Ukrainian industry statistical data and empirical findings that allowed approaching the study objective.

Empirical data was collected through conducting unstructured interviews with the industry actors. This design is usually chosen to get the possibility to be more flexible in the research context while being "not sure in the precise nature of phenomena" (Saunders et al., 2009). Using unstructured (in-depth) interviews with open ended questions allows approaching research question more deeply through the insights provided from the primary source; asking for clarification; guiding the direction of the data collection and adjusting it to the research purposes.

The choice of this research method for the study can be justified for several reasons. Business in Ukraine is heavily dependent on formal and informal institutions. The only possibility to get an updated and practical insight on the general business environment and floriculture industry development in Ukraine is through direct interaction with the industry stakeholders. Additionally, previous research, data and publications on particular business in Ukraine are obviously lacking. Another reason is that the sample of the research is built from numerous companies performing different functions in the global floriculture industry value chain, having different business models and operating in different institutional environments. Interviews with open-ended questions and the logic of questions varied allow approaching each interviewee individually. Though the questions for each company with the separate number of activities were made up individually, approximate 'checklist' can be seen in Appendix B.

Sample

In the course of the empirical data gathering 7 Ukrainian, 7 Dutch and 1 Belgium firms were interviewed (see Appendix C). Ukrainian sample was build from 6 importers and one floriculture industry non-governmental institution. Low participation rate from the Ukrainian companies lead to random selection of this part of the sample, thought (largely by the matter of luck) sample is still representative: 2 biggest importers in Ukraine and roughly 2 medium-sized and 2 small importers. Big importers are traditionally first players on the market since the beginning of 1990's, while the presence of other importers varies from 3 to 8 years. Positive response to the study participation was largely the case with foreign companies that allowed more sophisticated sample construction: 1 grower, 1 mediation company, 4 exporting companies and 2 companies that combine growing and exporting activities. All foreign companies are mature actors in the global industry though their presence at the Eastern European market varies. Some companies like OZ Planten, Baardse and DGI have been one of the firs exporters of the plants on Ukrainian market, while other companies are only starting the trade with Easter Europe and are interested in investigating trade opportunities. The sample was constructed not only accounting for different activities, presence at the market, size and capabilities of the companies in the global industry value chain, but also accounting for linkage between these actors in the chain. For example, DGI supplies only Ukraflora on the Ukrainian market; Nolina sells its' products to Ukraine through Baardsee exporting company. Such sample construction was done to strengthen the validity and reliability of the research results, allow higher degree of generalization and reduce the limitations that are still present in the research.

Limitations

- Insights on the business environment and trade aspects largely account for non-formal institutions and can't be confirmed by any other sources. That hinders the credibility of the results. 'Double-side' sample construction of importing and exporting companies is expected to mitigate this limitation, though doesn't reduce the participant biases completely;
- Validity of the statistical information provided by the sate bodies can be doubted as it often doesn't fall with the information provided by the foreign exporters, local importers and other external industry experts as it will be pointed out in the analysis;
- Broad scope of the research should be admitted. However, this maybe be seen as a necessity that allows to approach the research objective and research question as far as it is possible conducting the research limited in the scope and time frame. Many aspects, like investigation of own production possibilities because of the recent further export complications, were not accounted

at the initial phase of the research and were further added with the deeper understanding of processes and trends in the industry.

Some limitations will be acknowledged during the empirical analysis.

Data collection and analysis

To determine the position of Ukrainian floriculture business in the global industry supply/value chain and to make judgements on general perspectives in the plants business, companies were asked a number of open ended questions (see Appendix B). Ukrainian industry actors provided the insights on general industry trends, companies' information, supply channels and logistics, as well as barriers to efficient trade and market opportunities including own production. Meanwhile, foreign exporting companies shared the insights on their perception of trade with Ukraine, its' barriers and opportunities. Interviews with the foreign exporters had another implication for the research as well – making up the general picture on global floriculture industry value chain through interviews with the key stakeholders in the chain – Dutch companies.

In-depth interviews were held as face-to-face meetings with the industry representatives while visiting Dutch and Ukrainian companies' offices and at the International trade show Flowers& HorTech Ukraine 2011 held in April, 2011 in Kyiv with the cooperation of FloraHolland. Later companies were contacted through Internet-mediated meetings or via e-mail regime if some clarification or additional information was needed.

Interviews were audio-recorded and further transcribed. This allowed detailed analysis and identification of meaningful variable that allowed further aggregation and generalization of the main findings. In that respect aggregated primary empirical findings with the secondary data available in the form of previous industry research and statistics enabled the following analysis.

IV. GLOBAL FLORICULTURE INDUSTRY VALUE CHAIN

4.1. Global floriculture industry value chain in facts and figures

Floriculture industry is a very dynamic industry with constantly increasing trade volumes, number of actors and product varieties. The industry has demonstrated a tremendous growth during the last 20 years. Based on Dutch and American articles the production was estimated 11 billion dollars in 1985, 24 billion in 1990, growing to 31 billion in 1996, via 44 billion in 2000, up to 60 billion in 2003! Displaying the annual growth of 6 to 9 %. Europe is traditionally the largest producer with estimated production of 10 billion dollars in 2002 (see appendix A). The Dutch Flower Officer predicted even further growth of 45% in the next 10 years in 2005 (van Hemert,

2005: 2). Of course this estimation doesn't account for economic recession 2006-2008 during which the industry still displayed a slight growth. Main production countries are: the Netherlands – cut flowers, potted plants, bulbs, annuals and perennials; Germany – nursery stock and garden plants; Italy – flowers and potted plants; less considerable producers – France with its broad assortment, Denmark famous for potted plants and Belgium, UK and Spain as relatively small players in the field. (Figure 4.1.) North and South America floriculture production mainly consists of flowers and cuttings. USA and Canada stand for 80% of the continental flowers and potted plants production. In South America it's Colombia and Mexico together with Costa Rica and Ecuador that have developed recently mainly as producers of cut flowers, parental material and cuttings. African flowers production has increased rapidly during the last few decades with Kenya, Tanzania, South Africa and Uganda as producers of cut flowers, mainly roses. These countries show rapid growth because of the cheap labour and favourable climate though are still viewed as a risky unstable institutional and business environment. Asian production is represented by Japan, South Korea, India, China and Thailand mainly as producers of ornamentals and Israel as a big producer of cut flowers. However, countries like Japan and South Korea are mainly producing for the domestic markets. Oceania, Australia and New Zealand are mainly represented by small producers of cut flowers supplying local markets. (van Uffelen & de Groot, 2005)

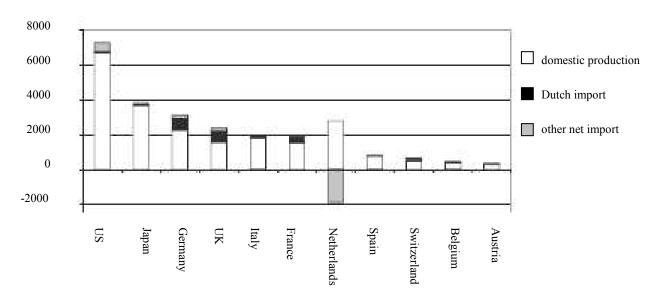


Figure 4.1. Domestic production and net imports of floriculture products (EUR million)

Source: Wijnands (2005) 'Sustainable International Networks in the Flower Industry', p. 29

Europe and North America stand for almost all consumption as well. Latin America, Africa and Asia export to those countries. North American is the most intensively growing consumption market. Its production can't satisfy the needs of the domestic market and it imports a lot of similar production from Europe as well. Consumption patterns can be explained by the rising income of customers mainly in Europe, USA and Japan. As the prosperity of people in Eastern Europe and Asia gradually rises, these countries can be viewed as potential markets. However, as the income growth is still low market opportunities can be mainly found in cheap products. This is the upcoming issue to place more and more attention for the global producers as the European market gets more and more mature and losing its global share, mainly because of the USA and Japan rising consumption (Table 4.1) (van Uffelen & de Groot, 2005). Table 4.2 provides support for Table 4.1: as flowers are not the articles of prime necessity it cuts down the demand and raises the price sensitivity greatly in the countries with the low income.

Table 4.1. Development in consumption of ornamentals per capita in different countries (dollar/year)

Country	1994	2002	+
Germany	74	83	13%
Denmark	63	83	31%
Great Britain	23	52	130%
Spain	19	30	55%
The Netherlands	61	93	54%
Japan	34	51	50%
Russia	n.a.	4	-
China	n.a.	1	-
USA	44	64	45%

Source: van Uffelen & de Groot (2005) 'Floriculture World Wide: production, trade and consumption patterns show market opportunities and challenges'

Table 4.2. Gross National Income (per capita) (most recent) by country

Country	World Ranking	Amount (UDS/ person)
Japan	3	35,474.10
USA	5	33,070.30
UK	9	24,486.70
Netherlands	11	23,770.30
Russia	82	1,764.05
China	108	865.03
Ukraine	112	748.67

Source: http://www.nationmaster.com/graph/eco_gro_nat_inc_percap-gross-national-

income- per- capita - cited 17.05.2011

International trade is impressive in its volumes, organization and management of its value chain. Generally the trade patterns and the value chain of cut flowers and ornamental plants (like indoor and outdoor potted plants) display some considerable differences. Cut flowers lose 15% of their value every day (van der Vorst: 6), so the speed of delivery to the final consumption point is extremely essential. However, volumes of the trade are much bigger. This is explained by the fact that potted plants are much heavier which increase the cost of transportation. Even for cut flowers the costs are very high: the aircraft cost for flowers from Nairobi to Amsterdam amounts one third of the auction price (Wijnands, 2007: 9). This influences the production patterns. As main cheap production hubs stand for the production of cut flowers, parental material and cuttings like Costa Rica, Ecuador, Kenya, Israel they are shipped almost in no time by the air transportation using extremely efficient packaging and logistics. The cost of the potted plants transportation make no incentives for the growers to relocate the production from traditional production centres like Netherlands, Germany and some new production hubs like Poland and Italy. Intra-continental European transportation of ornamentals is mainly done by land carriers taking advantage of the special proximity between the main production centres and main consumption markets. Sales channels differ as well: the majority of flowers are sold trough the auction clocks, while considerable amount of potted plants are sold through mediators and fixed channels (van der Vorst et al., 2006: 37) and this tendency is increasing. Taking these differences into consideration further analysis of the global industry value chain (as well as the empirical analysis) will be mainly concentrated on the potted and garden plants production, trade and distribution patterns.

Narrowing down the scope of the research in favour of the potted and garden plants chain will allow more profound analysis of the value chain processes and is done in line with the main study objectives and personal interests.

Managing ornamental chains is extremely hard and challenging task because of the product perishability, high degree of product and geographic specialization, numerous prime and supportive actors in the supply chains. Large number of small and medium-sized producers in the chain increases the transaction costs and variability of the products and their geographic spread increases distribution costs. Generally the industry is very competitive. Barriers to entry are low that greatly reduces the profit margins and increases the power of buyer in the value chain. Moreover, it's hard to define the value chain type (Sturgeon, 2008) in the floriculture industry as it is very diverse in terms of the relationships between actors at the different levels of the value chain. The industry actors can be conditionally divided into suppliers (like breeding companies), growers, mediators (auctions), traders (wholesalers, exporters), logistic service providers and outlets/retailers (florists, supermarkets, garden centres). As most of the floriculture trade is done through the auctions we can see the spot market transactions with constant high demand and supply – this resembles the simple markets mechanism, suitably modular value chain type when both suppliers and buyers are free to switch partners across the chain. However, a lot of businesses and cooperation in this industry are based on the relational aspects. This can be explained with a tendency to scaling up among separate actors within the industry. Separate retailers and producers have grown so big that they are able to establish direct cooperation and their own supply chain network leaving intermediaries like Dutch auctions aside. Such cooperation reduces the mediation costs, but requires additional cost for coordination. The transaction costs are obviously lower because of the high degree of trust. In general traditional florist shops and flower retailers are gradually loosing their share (from 57% in 2000 to estimated 38% in 2010) towards the supermarkets, garden centres and shops for building materials (from 34% in 2000 to estimated 55% in 2010) (van Hemert, 2005:3), like supermarket chains in UK (Tesco, Sainsbury's, Waitrose) (van Uffelen & de Groot, 2005), as well as some German construction centres work more and more directly with Dutch growers, IKEA in Sweden is also setting up its own supply chain network directly with the growers. But still these are the rare cases as the volumes of this cooperation are enormous. Often even the big grower can't supply for the whole chain of French or English supermarkets. Close cooperation between the growers, traders and retailers is the key factor of all industry success making the relational aspects of the global floriculture industry value chain governance extremely important. Nevertheless, at some points power imbalance takes place across the value chain. Because of the industry high specialization some "raw" material producers are located in the cheap labour hubs like Costa Rica and Mexico producers of the cuttings and parental material. These companies are supplying big European producers. As these countries posses no knowledge and technology for the new varieties, advanced logistical systems, marketing strategies they are heavily dependent on the foreign investors and trade partners resembling the captive type of the value chain. (Wijnands, 2005; van der Vorst, 2006; van Uffelen & de Groot, 2005; interviews). This is going to be further illustrated in a detailed analysis of the industry processes like logistics, marketing, specialization, production, distribution, cooperating, etc. that take place across the plant industry value chain.

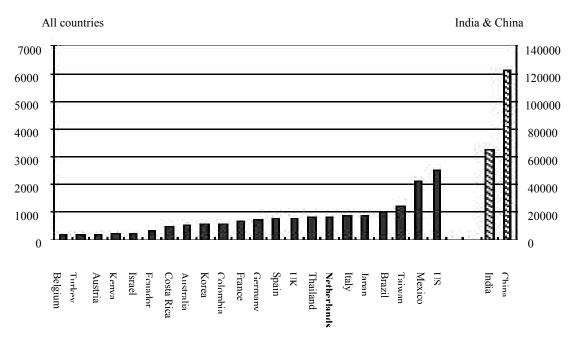
4.2. Netherlands – the main industry hub in the chain

When it comes to the export-import analysis of ornamentals it is easy to notice that one country stands for more than a half of all world floriculture export – 52, 3% (van Hemert, 2005: 3). In 2006 Dutch export value of all ornamental products was 6.28 billion Euros –3.2 billion for cut flowers and 1.8 billion for potted and garden plants (Dons & Bino, 2008: 120). The same time it is one of the biggest importers as well. Two factors stand for this. Historically the Netherlands is the biggest producer of the floriculture products, especially potted and garden plants. However, Figure 4.1 shows the evidence that it is far not the biggest country in terms of area under production holdings; meanwhile, Figure 4.2 displays its indisputable leading position in the production value of the flowers and potted plants witnessing the efficiency and competitiveness of Dutch floriculture sector. Another factor – Netherlands is the main industry marketplace that links the industry actors and most of the world flowers and plants trade is still taking place at the Dutch auctions. These factors combined make the Dutch floriculture sector a unique 'epicentre' of the whole global industry.

Recently floriculture industry has received the status of one of the key industries for Dutch economy. And it's not only because of the flowers and plants export and production activities. An estimated value of over 2.5 billion Euros can be added due to the activities of breeding companies, traders, etc. and a strong position in the high-tech industry of greenhouse construction and greenhouse logistics with a turnover of more than 1 billion Euros (Dons & Bino, 2008:120).

Still the question rises – how such relatively small country with temperate grey climate gained sustainable leading position in the whole global industry value chain?

Figure 4.1. Area (ha) of flowers and pot plants for selected countries



Source: Wijnands (2005) 'Sustainable International Networks in the Flower Industry', p. 30

450 400 350 300 250 200 150 100 50 Ecuador Kares Cacta Rica Australia Germany Thailand Netherlands France

Figure 4.2. Production values of flowers and pot plants (EUR per ha)

Source: Wijnands (2005) 'Sustainable International Networks in the Flower Industry', p. 31

Many previous researches explained the success of Dutch horticulture industry with the framework of Porters diamond (Batt, 2001; van Hemert, 2005; van der Vorst et al., 2006; Wijnands, 2005; Dons & Bino, 2008): the whole Dutch horticulture industry is organized in value chains and clusters where all industry actors work closely together with the auctions as a central marketplace.

Availability of numerous highly specialized research institutions foster advanced cultivation techniques which allowed achieving the sustainable competitive advantage in quality, freshness and variety. Other factors that contributed to this: efficient packaging and shipment (factor conditions), strong home demand (demand conditions), a highly efficient supporting services infrastructure like logistics, financing (related and supporting industries), and active domestic rivalry on certain focused places and specialized home-based suppliers (firm conditions).(van der Vorst et al., 2006: 3) These success factors require further examination integrating the insights gained in the empirical part of the research – interviews with big Dutch industry actors.

Historically professional horticulture in the Netherlands started more than a century ago in specific parts of the country where numerous growers discovered perfect combinations of soil types and climate conditions – today known as Greenports. These are: Aalsmeer – for flowers and potted plants, Boskoop – for trees and shrubs, Lisse – for flower bulbs, Lotum – for roses, Bleiswijk – for perennials and potted plants, together with 'Westland' the biggest area "under the glass". For example, Boskoop is the "motherland" of Dutch ornamental industry where perfect peat soils are combined with the natural channels network that substitutes automatic irrigation systems, and Lisse is located close to the sea coast that facilitates mild winters and has perfect light sandy soils for bulbs production (which is still 95% Dutch) (interviews). Nowadays these Greenports have grown in an intensive and numerous complexes of growers, transport, trade, logistics, different supporting industries, auctions etc. As the result of globalization and need for economies of scale, Dutch floriculture industry has developed into a strong concentration of various industrial functions in a small geographic area.(Dons & Bino, 2008: 120-121) The short special, cultural and institutional distance of the main industry actors has enabled efficient exchange of market information, industry knowledge, technologies and social changes. Plant Publicity Holland (PPH) determines five key principals that stand for the success of Dutch industry: professionalism, wide assortment, entrepreneurial spirit, constant innovative development and flawless organization (PPH). These factors can be even further reinforced emphasizing the high collaboration and specialization in the industry. These statements can be taken as too subjective, however further analysis provides the empirical support for these factors that determine the competitiveness of Dutch floriculture sector.

Number of actors involved in the chain (Figure 4.3.) provides the illustration for industrial *entrepreneurship* of the breeders, producers and traders. Narrow specialization of each actor serving the particular narrow segment in the chain deserves particular attention. High degree of specialization takes place directly from the *grower*. To illustrate: Boskoop – territory for ornamental production where some 400-500 growers are concentrated. Each grower is mainly specialized in the

production of mono or several cultures for already several decades that make the production value and volumes the most efficient in the world. Narrow specialization comes from the advantage of long time learning and powerful knowledge infrastructure embedded in numerous research and market institutions. This in turn, allows the growers to develop and produce a wide assortment that is able to satisfy domestic and export demand. High product specialization in order to be more efficient and competitive in the production chain is not only the case with Dutch growers. The production hubs all over Europe (like Italy or Spain with the olive trees and lavender, mass production of the hibiscuses in Israel or bonsai trees in Japan) make use of their relative comparative advantage in exact products with maximum production value. Territorial specialization is largely the matter of climate conditions: Italian lavender can be supplied to the customers 3 weeks earlier than Dutch one and the potted rose's production in Italy can cover only spring season, because in summer the temperature for production is too high. That facilitates the general industry supply as it can cover the round year demand. (interviews).

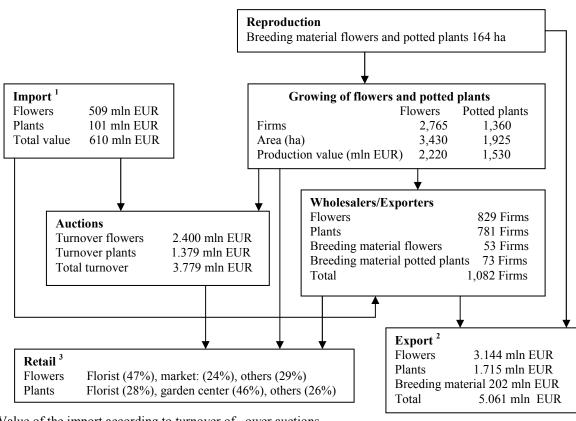


Figure 4.3.. The flower and potted plant chain in The Netherlands.

Source: van Plaggenhoef (2007) 'Integration and self regulation of quality management in Dutch agri-food supply chains: a cross-chain analysis of the poultry meat, the fruit and vegetable and the flower and potted plant chains', p. 35

¹Value of the import according to turnover of ower auctions

² Value according to turnover of exporters

³ Market share according to data of 2004

So, if the production specialization takes place world wide why the trade of both Dutch and foreign production takes place in the Netherlands? This is the question for further elaboration on narrow specialization and *efficient organization* of Dutch industry in the floriculture supply chain scheme. (Figure 4.4.)

Technical suppliers Logistics Schiphol & Rotterdam including ICT Seed-Wholesale Florist or Grower Auction Exporter Consumer Producer trade retailer Universities & Government **Business services** (higher) education

Figure 4.4. Dutch floriculture industry supply chain.

Source: van Hemert (2005) 'E-business and the Dutch Flower Industry:

A survey for strategic opportunities', p. 6

"The power of the Dutch Flower Industry is the fact that relative small companies specialized in a few elements of the value chain are working together" (van Hemert, 2005: 6). Such "strategic coupling" according to Coe et al. (2004) creates networks that posses endogenous capabilities to serve global market. After the growers have produced broadly diversified assortment, at this point it can be delivered to the auction, another wholesale market places or exporting companies for the further movement in the chain. As it was mentioned before the direct trade between the grower and retailer is a very rare case requiring huge volumes of production. In turn, producers as a rule are narrow specialized and can't provide wide assortment. This requires a big scale buyer which could coupe with big volumes of narrow assortment (UK supermarket chains), though with the internationalization this tendency is expected to develop as the power of retailers in the chain is scaling up. Nevertheless, wide majority of plants goes through the particular form of mediation. These forms are somewhat different for cut flowers and potted plants. Cut flowers are still mainly sold through the auctions – 70%, while only 30% of potted plants are traded through the auctions. Most of interviewees expect that these numbers will further decrease gradually as a tendency to development of relational and close cooperative business culture – transformation of the

industry actors from solo working companies towards partners in the chain. This is especially the case with ornamental plants. Plants not traded through the auction are sold directly to the wholesale marketplaces or exporting companies. Respectively, wholesalers and exporters, which serve the retailers, buy at the auctions or directly from the growers. For better understanding of these processes further clarification of the auction and export company functions is required.

Dutch flower and plants *auction* deserves a special profound analysis as it is an efficient and unique economic mechanism. Historically it is the main market place that brought together the growers and the wholesalers. It was organized as cooperation owned by growers to guarantee a good price for the growers and constant turnover as the industry has always been embedded in numerous small and medium-sized growers and fewer number of relatively big wholesalers.

Two biggest Dutch auctions FloraHolland and VBA have recently merged. Now the biggest flower auction in the world FloraHolland consists of six sub-structures serving domestic and export markets: Aalsmeer, Naaldwijk, Rijnsburg, Bleiswijk, Eelde and intermediary organization FloraHolland Connect which deals with domestic and import scope of activities. Plus the auction Rhein-Maas in Germany that is half size of the Dutch one and is organized as a cooperative between FloraHolland and Landgard (Germany). Each year FloraHolland markets 12 milliards of flowers and plants for more than 4.1 milliards Euro and employs roughly 4,200 people. (FloraHolland)

Several interviewees and auction visit provided detailed insights on how the trade with plants takes place at the auction: The trade starts early in the morning with a fresh production that comes out from the special equipped cool storages tightly packed on the trolleys on the running belt. The picture and information on the plants (origin, quality [A,B category depending on the problems plant has: disease, too open flower, etc], start price defined by the operator/auctioneer from the market knowledge and actual supply) appear on the auction screens near the clock. The price drops until the buyer stops it and determines the actual price (see Figure 4.5). The process runs again for the remaining production of the same grower or for another growers' production of the same lot. Bought products proceed further on the belt to the specialized storages where they are given the separate bar-code, packed and prepared for shipment. All these processes are done almost in no time: starting from the decision of the buyer for the fare price to the final shipment stage. Products have the margin under which they can't be sold. In case plants are not sold they go through "destruction" procedure. This is done not to place the incentive for the buyers to wait until the price drops under the "acceptable" level. So, the question rises – if growers have no control over the price and the guarantee that the plants will be sold – why do they globally bring their production to the auctions? First, they can reach constant high demand from numerous buyers in one place. That facilitates growers specialization on monoculture production as the quantities of single culture produced by one grower generally are too big for one buyer. Second, production is a large scale process that can't be stopped or adjusted to market conditions in short-term. On Monday the prices are the highest, on Friday – the lowest. The grower can't gather the plants all the time on Mondays. Some interviewees estimated the annual losses by grower of 3 to 6% in not sold plant material. This is the result of the product specificity previously discussed and usually is included by the grower in the production price. (interviews)

That is not the only reasons for why growers all over the world prefer trading their plants through the auctions. E-market places favour standardizing and bundling logistical service providers, (LSP) as requirements regarding transport services rise significantly (Delfman et al., 2002: 215) Auction provides internal logistics (cross docking) including services like auction cars etc. to enable the trading process; orchestration of logistical processes like collection from the buyers and delivery to the buyers – that reduces general logistical expenses; invests a lot in development of trace and tracking systems. Auction grants advantages like financial guarantees and administration; standardization on messages and codes including specifications for ICT-systems; a database with an overview of plants available, description of levels of quality combined with trust indexes; conducts market researches and supports growers for development of market concepts; provide different arbitration mechanisms. The costs for these services are shared among the sellers and buyers. (van Hemert, 2005: 7, Wijnands, 2006: 532) Both parties pay annual contribution and registration fees: for suppliers – registration fee is 1750 Euro and the commission of 2.3%, while non-members pay 4.3 – 9.3 % commission; for buyers – registration fee is 6,000 Euro and the commission up to 1,5% of the bought plants price in 2011. (FloraHolland)

The advantages and disadvantages of using actions as a mediation channel in plants trade can be analyzed applying the transactional cost and institutional framework:

The most obvious features of e-marketplaces are short-term, spot-based transactions with a varying and great number of different suppliers. (Delfman et al., 2002: 214). When numerous actors are gathered in one place and provided the services listed above, transactions costs are eliminated – the costs of information, monitoring and negotiating costs. Growers here don't view one another as competitors. Together they are able to satisfy the demand attracting buyers to the market place. In that way asset specificity of product varieties is added up with other assets like special storage areas, managers knowledge, etc. Actors on the market have little incentive to act opportunistically as the interactions are frequent without close contact between the parties involved. However, the same

time little direct contact with the end user is the main disadvantage because information from the market may not always reach producers leading to information asymmetry at the market.

Some industry actors express the expectations that the number of the pot plants traded through the auctions will drop by 10% (van Hemert, 2005: 9). Moreover, not all floriculture products can be sold through the auctions. Most of the potted plants traded at the auction are indoor potted plants, annuals and perennials. Bare roots plant material, parental material, most of the garden plants (big-size, small-volumes) go through the mediators like wholesalers and exporters.



Figure 4.5. Plants auction in Aalsmeer



Figure 4.6. Wholesale centre in Boskoop

Source: The author

Exporting companies perform the connecting function in the chain to the retailer which finally serves to final customer. As it was mentioned before exporter buys from the auction or directly from the grower. These are the companies that "do the business," - as the grower pointed out, - "we leave that for them...Narrow specialization stands for the professionalism". There are particular functions exporting companies take for themselves: import, assortment, packaging, paperwork, quality control, etc. In tern there are functions that are left for "professionals" or the clients like logistics; however exporters are always ready to outsource all the services required by the client within the collaborative network. They take advantage of the special proximity to the actions and growers to be able to provide full sophisticated assortment and have it packed for the customer almost in no time, as well as gathering the world import through import departments. Obviously, this involves the service costs and the costs to collect information, contracting costs, etc. but gives the buyer the guarantee of any plants assortment at any time and highly professional level of the

business. That's why most common business model in Dutch flower sector is long-term cooperation with highly trustful relationships.

Another striking feature of Dutch floriculture industry is high collaboration in promotion and research activities as well as quality standards regulations – central institutional environment for the whole global floriculture industry. Dutch growers are paying levies to finance promotion and research to the Ornamental Products Commodity Board from the areas cultivated: 63% goes to Flower Council of Holland to promote the sale of Dutch production both domestically and abroad, and 37% goes to support R&D on productivity per unit area (Batt, 2001: 50). Plant Publicity Holland is another institution that stands for the promotion and joint marketing of Dutch plants and is governed by the growers. Knowledge infrastructure is embedded in Wageningen University and its Research Centre which conduct research on plant breeding, greenhouse techniques, postharvesting handling, economics and marketing. (Wijnands, 2005: 41) Some Dutch breeding companies spend on R&D as much as 25% of the budget which is even more than the average spending of the pharmaceutical companies! (Dons & Bino, 2008: 126) UPOV (Union International pour la Protection de Obtentions Vegetales) protects the varieties and the property rights of the breeders. Most countries are affiliated to this union. For the developing hubs it's very important to have the access to new varieties. MPS (Floriculture Environmental Project) is a quality management system in flower and potted plants chain. Initially it was functioning for reducing the chemical crop protection and was aimed for the producers. Now it certifies wholesalers and exporters as well: systems like Florimark TradeCert, FlorimarK Good Trade Practisces (GTP), MPS TradeCert. (van Plaggenhoef, 2007: 64). It becomes worldly recognized standards, as more that 30 key industry countries are using it (Wijnands, 2005: 27). The most obvious trend we can observe in the global supply chain when it comes to quality regulations, is that traders want to make sure the products are made in a proper way. This is also called production in triple P-concept: Profit, Planet and People. This scheme can be covered with MPS-label for environmental outputs, MPS-scheme for socially qualified holdings, and product specs from label called Florimark combined in MPS-Gap. Investing a lot in developing ICT and logistical standards decreases supply chain costs and lead times to deliver fresh product to the customer. (van Uffelen & de Groot, 2005) FloriLog is the quality certification systems for logistical service providers in the industry. VARB is the program for registration of all deliveries and orders for traders and is the basement for e-trading. The Dutch industry development shapes all the floriculture industry value chain. Porter once mentioned: any industry can stay competitive only by constant innovation and advancement. Dutch floriculture provides the empirical evidence.

4.3 Summary of the keys findings on floriculture industry value chain:

- The production of floriculture products has increased worldwide in volumes and in geographical spread. We can observe the emergence of the new production hubs like Latin America, Africa and Asia, as well as growing production in European countries like Poland, Spain, Italy. However, in contrast to cut flowers chains where the production is more geographically dispersed, production of ornamentals is mainly concentrated near the traditional consumption markets like Netherlands, Germany, France. Such regional supply is expected to be leading in the future because of lower transportation costs and product's freshness.
- The industry is very competitive in its nature with low barriers to entry and low profit margins. Industry actors compete for quality, variety and freshness. In this respect the most competitive are those whose supply chain management "from the seed to final customer" is the most efficient.
- Historically the competitiveness and central place of the Dutch floriculture sector can't be questioned. Dutch leading position in the production, marketing, logistics and varieties can be explained using Porter's diamond model and key factors like professionalism, wide assortment, entrepreneurial spirit, constant innovative development and flawless organization (PPH), as well as narrow specialization and high collaboration in the industry.
- We may observe the increasing power of buyer in the global floriculture industry value chain that can be explained by changing nature of the main distribution channels shift from the traditional flower stores to the garden and building material centres and big supermarkets. They purchase big volumes and have their preferred suppliers, in turn get bigger control on the whole supply chain management.
- Management of the global ornamentals supply chain is a very challenging task that requires big coordination. That is why relational aspects, long term commitments and business cooperation become more and more crucial across the whole value chain helping to reduce production and transactional costs. International alliances make market access and export easier. As all countries have specific regulations and business culture, strategic partnership in the chain decreases institutional distance and raises the competitiveness of final product on the market.
- The industry is expected to demonstrate further growth as the result of growing consumption worldwide. Traditional markets saturate. The trade within Europe (main markets) has changed with 0% during 1994-2002. (van Uffelen & de Groot, 2005) The main incentive for the producers to hold profit and maintain the industry growth is to enlarge export activities to other countries. Countries with the rising income like Eastern Europe can be seen as a potential markets.

V. POSITION AND PERSPECTIVES OF THE UKRAINIAN FIRMS IN THE FLORICULTURE BUSINESS

5.1. Ukraine – promising market?

Almost 20 years have gone since Ukraine was proclaimed as an independent state in 1991. It is the biggest country in Europe (not accounting for Russian European part) with the population of 45, 7 million people. Only these facts place a direct interest for further detailed consideration of Ukraine as a potential market.

However, Ukraine as a former Soviet republic faces a lot of barriers and institutional traps on the way to the development of market economy and democratic processes in the society. In 2008 Ukraine accessed WTO, but importers claim that this has not lead nor to smoother import procedures nor to lower import duties. Traditionally trade liberalization is followed by non-trade barriers. When the trade regulations about quota and tariffs decrease, other regulations increase (quality levels and phytosanitary conditions) (Wijnands, 2006).

Table 5.1. Ukraine's ranking in Doing Business Ranking 2011 (among 183 countries)

Doing Business 2011	RANK
Ease of Doing Business	145
Starting a Business	118
Dealing with Construction Permits	179
Registering Property	164
Getting Credits	32
Protecting Investors	109
Paying Taxes	181
Trading Across Borders	139
Enforcing Contracts	43
Closing a Business	150

Source: International Financial Corporation (2011) 'Doing Business 2011Ukraine:

Making Difference for Entrepreneurs', p. 2

"Nothing facilitates the business in Ukraine, particularly plants business" (interviewee). Ukraine is ranked as number 145 for ease of doing business and 181 for paying tax among 183 countries; but the most striking for this research is the facts Ukraine is ranked 139 for trading across borders (International Financial Corporation, 2011). (Table 5.1) The next section provides the empirical evidence that this combined with a low income of the people (see Table 4.2) are the main plants 'business killers' in Ukraine.

However, Ukraine is a flower and plants loving country! Despite low purchasing power of Ukrainian citizens and high elasticity of the product import is growing with a tremendous pace. The figures presented in Appendix A show that export of potted plants to Russia accounts for 15% of the total non-EU export and is the second largest importer after Switzerland (30,3%), while Ukraine stands fifth position and 4,9 % share that is close to the US' export share – 5%. Moreover, both Switzerland and the US demonstrated stable demand during the last ten years, while Ukrainian and Russian demand increased more than 4 times during the last decade. (European Commission Agriculture and Rural Development, 2010) Still we should acknowledge the limitations of this "scaling up" illustration of Eastern European demand, as before 2004 these figures didn't account for Poland and Hungary whose share in total exports of ornamentals to Ukraine has increased rapidly during the last years.

Increased import is the result of increased consumption. As the income is gradually growing people start to buy more floriculture products. Especially this is the case with potted and garden plants which import in 2009 for the first time has exceeded the import of the cut flowers (Vogel, 2009). Traditionally people buy flowers for holidays and celebrations. Nowadays there is a growing tendency for people's preference of potted flower as a present because of the longer period of live and interior decorative functions. The growing demand for ornamentals is related to the development of the landscaping industry in Ukraine. Today this market is quite competitive and is represented by 98 nurseries, 85 garden centres and 159 landscaping firms (Landscape Industry Ukraine, 2011). These figures do not account for the small-family owned companies and private functioning landscape architects that have a considerable market share. Apart from private customers' and businesses' growing demand to decorate their apartments, gardens and offices with plants, public institutions and organizations place more and more orders for ornamental production to decorate green areas and recreation zones. (Table 5.2) This tendency is even further reinforced by the upcoming world football championship held in Poland and Ukraine Euro 2012.

Table 5.2. Estimated annual demand in planting material in Ukraine 2008 (in million UAH, EUR)

	UAH	EURO
New private habitations	300	24
New tenement houses	750	60
Old tenement houses	1269	101.5
Planting of common use (parks, public gardens, etc.)	499	40
Planting of special purpose (road sides, industrial areas	218	17
TOTAL	3036	243

Source: Razumovskyy (2008) 'Problems of Ukrainian green market'

5.2. Ukrainian floriculture business: insights by actors across the chain

5.2.1. Supply channels

Traditionally the biggest share in the whole floriculture imports to Ukraine stands for the Netherlands. (Figure 5.1) Some particular groups (like flower bulbs, planting material) of the floriculture products are 94 to 99% of a Dutch origin. (Customs Brokers Association of Ukraine, 2010) Netherlands is a stable leader in the potted plants import (94%) (Vogel, 2010: 39) while with the time it loses its share in ornamental products exports (22%) more and more in favour of Germany (21%) and Poland (35%). (Figure 5.2.)

Netherlands 50000 Ecuador 5 40000 □ Poland □ Turkey 30000 Columbia 20000 ■ Germany 10000 ■ Italy □ Others 2004 2005 2006 2007 2008

Figure 5.1. Ukrainian imports of live plants and floriculture products country-wise (38)

Source*: Vogel (2010) 'Ornamental Flowers, Plants and Trees in Ukraine – Market survey', p. 28 *original source: State Statistics Committee of Ukraine (SSCU), 2009

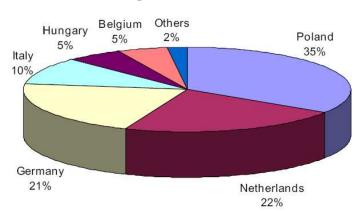


Figure 5.2. Ukrainian imports of ornamental trees and shrubs

Source*: Vogel (2010) 'Ornamental Flowers, Plants and Trees in Ukraine – Market survey', p. 46
* original source: SSCU, 2009; League of Landscape Architects Ukraine, 2010

All Ukrainian importers name roughly the same list of ornamental plants exporters: *Netherlands, Germany, Poland, Hungary, Belgium, Italy,* some have particular suppliers from UK, France, China, etc. However, different companies prefer different suppliers depending on own capabilities in the supply chain: logistics, market share that secures volumes and assortment, etc.

All importers agree that the *Netherlands* is "historically the main flower market" and the supplier with excellent varieties and selection techniques, wide assortment and advanced marketing of the product. While nobody argues against the quality of Dutch production, some importers question its' 'adaptability' to the local climate. Some times Dutch production is being criticized for bad winter hardiness, for being over fertilized and losing its "shining beauty" in Ukrainian climate. Importers provide the obvious cases and figures with their material losses from Dutch planting material. Meanwhile, one Ukrainian importer and several Dutch growers disprove this statement. They claim that any biological specie has its own winter hardiness zone characteristics that are defined by the plant's DNA, not the country of production. For "losing shining beauty" statement they state that when the temperature goes bellow 10 °C or higher 25 °C, plant slows down its' development. Ukrainian climate with high differences of temperatures (- 30 °C - + 30 °C) stresses the plants, while mild Dutch climate facilitates favourable plant development during longer vegetation period. They justify Dutch quality by excellence gained through long production history. However, the fact of considerable climate similarities between Poland, Hungary and Ukraine is not disputable and it's logical to assume that the plant of such origin is less likely to be stressed because of the climate differences. As the scientific research is lacking, it is difficult to make some explicit judgements. Another relative factor that influences the preference of Ukrainian importers towards Dutch exporters is the companies' size (market share) and transportation capabilities. Big stable companies posses the capabilities of gathering big volume orders that facilitate the transportation. Nowadays Ukrainian business catches up with the volumes of rapidly growing market and European way of running the business. More and more "strategic partnership" is taking place across the supply chain. Big Ukrainian importers value their suppliers and acknowledge that sophisticated network of mutual relations helps to keep the transactions costs low. Such form of work requires a lot of trust and relational commitments gained through years of cooperation. As Dutch exporters have pointed out "unstable business and institutional environment forces us to hedge the risks of working on Eastern European market through prepayment and bank warranties, full payment to the previous suppliers". Usually big Ukrainian companies stick to one or two big suppliers. For example, Ukraflora works only with one Dutch exporter DGI that in turn serves only Ukraflora on Ukrainian market. Dutch exporters claim that such "strategic coupling" (Coe et al., 2004) has obvious advantages: serving one importer 100% provides high level of trust, guaranteed markets share and lower transaction cost (monitoring, negotiating and informational costs), limits the opportunistic behaviour of Ukrainian importers, finally insures the risks and makes trading on "not easy Ukrainian market easier and better". One of the biggest exporters also acknowledges the possibility of buying small forms represented on the auctions in big volumes for very competitive prices. Smaller importers prefer Polish and Hungarian production not only because of the climate similarities and lower price of the plants, but also because of the similar business culture and shorter institutional distance.

Germany is usually compared to Netherlands by the quality, price and transportation costs, however less climate and spatial distance is acknowledged by the Ukrainian exporters. It has strong position in ornamental exports to Ukraine largely due to the German specialization on 'big' plants. Germany is famous for its 'family-owned' nurseries of coniferous and deciduous large-sized shrubs and trees. These products of high-quality and high-price category have still a relatively big demand in Ukrainian market. Explanation for this is that landscape design is relatively young and rapidly developing industry in Ukraine. Usually people who are the customers of landscaping companies in Ukraine are people with high income and high requirements to the final product. Several exporters have noticed: "It is a distinct feature of Russian and Ukrainian customers that they want directly a huge plant". Netherlands generally doesn't produce plants that are scoring more than 2 meters high, Poland is somewhat too young production hub for such product, besides its' quality can't satisfy such sophisticated customer. Germany has obvious comparative advantage in this market niche.

Nevertheless, Ukraine is largely a niche market for cheap products. Import from *Poland* presents the biggest interest for young and small players at the market and those who supply for budget-oriented demand. The lack of stable position on the market from the demand and supply side facilitates such companies to work with Polish suppliers as this doesn't require big volumes and 'official' business culture. Due to cultural and social similarities 'cooperation' is still taking place in logistical and import procedures. That is not the case with the Netherlands: Dutch companies don't want to work with "half-price" invoices and don't wont to ship to Ukraine as well. It's hard to make explicit judgments on the quality of Polish production as different importers express different opinions. Some claim that the share of Polish production is constantly decreasing in their general exports, because of often quality inconsistencies. Some are justifying Polish export for good quality they get for a "very competitive" price. Plus spatial proximity facilitates the logistical processes.

Quite similar patterns displays export of plants from *Hungary*. Most of interviewees agree on Hungarian plants' good quality/price ratio. Generally the market information given by the importers allows to conclude that Hungary is gradually gaining its' market share in Ukrainian exports at the cost of Poland, while Belgium products increase their presence at the Ukrainian market at the cost of Netherlands and Germany.

Belgium has a growing share as an ornamentals supplier to Ukraine. That is mainly justified by the high quality and wide assortment of the products. Belgium small growers often combine the functions of the exporters as the industry is not that scaled as Dutch one. This fits rather well with Ukrainian relatively small importers and more individual approach of cooperation. One small importer and nursery owner mentioned: "they had overproduction, so I got very good assortment for very good prices. Since that Belgium has the biggest share in my imports".

Additionally, Ukrainian importers deal with the exports from Denmark (potted plant and parental material like phalaenopsis), Spain and Italy (potted outdoor plants, citrus and olive trees), China (ornamentals like peony trees), etc., but the volumes are rather moderate. Some import even doesn't go directly to the Ukrainian market like export of bonsais from Japan. It is done through Netherlands, Germany or Italy mediation, emphasizing the trade barriers that make geographically favorable position in the supply chain practically unfavorable.

Generally it is possible to draw a conclusion that imports done to Ukraine is a wide assortment of 'multi-suppliers' mix in relatively small volumes that is too satisfy small but solvent and sophisticated demand. That places additional challenges for supply chain management in terms of marketing, logistics, etc.

5.2.2. Structure of the Ukrainian floriculture sector

Big Ukrainian importers work trough direct contracts with wholesalers and producers (Poland, Germany) and exporting companies (Netherlands). While small importers can as well outsource market opportunities constantly using intermediary contracts for several positions that are being offered for attractive spot-prices. As the industry is very competitive with low profit margins, requires big financial capabilities and hinders many risks, industry actors that haven't gained stable and big market share are under the constant threat of being driven out of the market. The tendency to tap into many industry activities to be able to capture maximum profit and share the risks is noticeable not only among the small actors. Industry scale in Ukraine doesn't allow narrow specialization for almost all actors in the chain. Export of plants to Ukraine is mainly done through importers, but increases the direct import through retailers like garden centers and post-order service companies. Nursery products, as an example, are mainly imported by garden centers - 70%, 25% are imported by small regional companies and 5% - by landscaping companies (Vogel, 2010: 45). Integration of main industry functions in frames of one company activity takes place across the whole chain. Usually wholesalers have their own wholesale locations where both customers and wholesalers can buy plants providing a bulk discount for the last ones. In addition, these importers have often their own production that is obviously sold with the first priority. Importing companies are traditionally supplying outlets like supermarket chains and building material centers: Vash Sad is supplying to Epicenter, Ukraflora is supplying to Praktiker, Ashan, Billa, Nova Liniya, Metro Cash&Carry. These considerable industry actors invest a lot in marketing and image building strategies.

Suppliers compete on quality, reliability and steady supply. This places additional challenges for supply chain management in terms of products' choice and delivery. Usually the products are chosen each time individually by company's managers (in case of small importers – director himself) through visiting producers, wholesalers, fairs and exhibitions. If the supply channel is considered to be reliable, products can be chosen via internet or by the recommendation of trade partners. However, exotic and exclusive plants orders are treated each time individually irrespective of the relational aspects as such deals bear big material risks.

Logistical strategies vary again depending on the size and capabilities of the importer. Most of the companies use consolidated distribution. It is logistical strategy required "when the volumes of the goods to be delivered is smaller than the transport unit size (combining less than truck loads) or when the total traveling distance can be reduced by re-combining full truck loads" (van der Vorst et al., 2006: 13). Consolidated distribution is especially needed when delivery frequency increases

that result in decrease of the delivery batch sized. (ibid) That is especially the case with perishable floriculture products and its unstable demand. Majority of industry actors in Ukraine use own transportation for domestic's market purposes. When it comes to imports, small and medium-sized companies that have no own specialized transportations outsource logistical services through brokers and logistical service providers using consolidation scheme. Usually these are Ukrainian service providers as they have the lowest prices and "the knowledge about customs services", but the quality of service provided is inconsistent and transport is not always specially equipped. Using the specialized transportation with climate control focused on physiological needs of the plants, increases the chances that the product will arrive with the right quality level as it slows down deterioration process. Big importers use their own equipped land transportation. For example, Camellia and Ukraflora are part of the transportation concern. They take advantage of big market share. As one importer has pointed out "anyone can be part of the concern as soon as he manages to order a full track." As the result these importers can outsource logistical services for small importers. In that way mutual benefits are obvious – big importer captures part of the logistical service provider profit and probably substitutes for own shortage in demand, while the small one gains access to logistical services available for big importers. However, acknowledging the limitations of this study, the judgments to be made on the efficiency of the logistical processes require more deep insights and detailed calculations: whether it is a big importer that maybe loses the potential client for the products by giving the access to the logistics, or small importer that saves on the advanced logistical providers but loses on the increased transactions costs and risks the product quality.

5.2.3. Barriers to efficient trade

However, all parties involved in plants export to Ukraine claim that unfavorable business and trade institutional environment is the main obstacle to the industry development. "Institutions can be defined as the humanly devised constraints that structure political, economic and social interactions". (Wijnands, 2007: 2) They define "the rules of the game". Exporters and importers name high import duties and income taxes, complicated import procedures, corruption, phytosanitary certification procedures as the main constrains to export in Ukraine.

Despite trade barriers import of plants to Ukraine demonstrated stable and rapid growth in different floriculture products' categories (Table 5.3) until 2010. In 2010 particular changes in the regulation of floriculture products export occurred that decreased export volumes tremendously and stressed the industry even far than financial crisis and strong national currency inflation.

Table 5.3. Imports of the plants and floriculture products in 2006-2008 by commodity group

	2006		2007		2008	
	Volume	Value	Volume	Value	Volume	Value
	Tons	x 1,000\$	Tons	x 1,000\$	Tons	x 1,000\$
TOTAL	26295	49817	35861	66806	40492	100445
Cut flowers	4592	15763	6162	20946	9283	42344
Flower bulbs	973	4251	865	4053	1950	8846
Indoor plants	6726	7641	8237	8991	9018	13163
Ornamental trees & shrubs	9275	6372	15251	10403	15623	13658
Roses	534	2323	492	1147	785	2002
Rhododendrons & azaleas	190	290	297	448	266	586
Fruit trees & berry plants	1694	10286	1911	16463	1437	14177
Others	2311	2892	2647	4355	2129	5670

Source*: Vogel (2010) 'Ornamental Flowers, Plants and Trees in Ukraine – Market survey', p. 27 *original source: State Statistics Committee of Ukraine (SSCU), 2009

Before august 2010 all the floriculture products had specific product code and were the subject to particular import duty tariff. For example, ornamentals had the general group code 0602 and the specifics code of particular products that stood for fixed tariff: 0602 30000 – rhododendron – 20% (import tariff), 0602 40 – roses – 5%, 0602 905100 – outdoor ornamentals – 15%, etc. (Vogel, 2010: 60) Exporters and importers were exposed to "non-official" import duty as well that was defined by the custom officer. Often the interpretation of legislation by the state bodies lead to unjustified delays on the borders and international trade transactions' resulting in products loses. However, the Order of State Customs Service of Ukraine (SCSU) from 19.08.2010 No. 937 has "changed the rules of the game": all the customer procedures for imports of all floriculture products were to be held through Central Custom Service of Kyiv region. This allowed importers to go through customs procedures in specially equipped terminals for plants storages and phytosanitary controls. The same time this obliged the Western Ukrainian exporters to bare extra non-refunded expenses of some 1500 km transportation as well as the time delays for the plants to be packed out and put on sale. Moreover, the import tariffs were equalized for all floriculture products categories and were

calculated since on from the physical weight of importing production. According to SCSU this was done "to guarantee the single approach to complete and truth worthy declaration, classification and price specification of floriculture imports... Customs authorities are empowered to make judgment on price specifications of the products..." SCSU claims that it was implemented as indispensable measures to reduce the shadow imports. Earlier indirect trade accounted for 67% from total imports and the average price for 1 kilo of floriculture production was 1,2 USD instead of 3,7 USD/kg. (Customs Brokers Association of Ukraine, 2010) However, we should be critical to the data provided by Ukrainian institution that is another limitation to the completeness of data in this research. In 2005 MPR estimated market value for all ornamental products of 83 million USD relying on the data provided by SSCU, while the calculations done by Dutch Product Board show the figure of 217 million EUR for only cut flowers and potted plants using the statistics provided by exporting countries to Ukraine and interviews with industry stakeholders.(Vogel, 2010: 30) Industry actors provide different insights as well.

Importers claim that previously customs authorities could evaluate the validity of the prices provided by the importer by referring to the information available on prices of similar goods and than make "judgments". Importers at least knew the official import duty. Now as importers say they can never know how much they will pay to get their plants pass customs control. One is obvious: it is way more expensive now 'officially' and 'non-officially'. Some importers provided examples and calculations: the price markup of small plants was 17% last year, this year it is 42%. Price markup for big heavy plants 250%! When the customs officers were asked to estimate the import duty from the official invoices beforehand by the exporters, explicit answer was usually not given leaving room for negotiations; when importers tried to oppose the situation by involving the media, it lead to no result as the new customs terminal near Kyiv "Martusivka" is working as a closed enterprise. All exporters state that they don't deal with the further supply processes to Ukraine after they've prepared the plants, certificates and documents for shipment by the importer as they don't want to deal with this "lawlessness".

New barriers to imports resulted in rapid decrease of total floriculture imports (Figure 5.3) after considerable lasting export growth. This is especially the case with potted plants and nursery products which vegetating part accounts for minor part of the weight contrary to the cut flower that is initially a net product.

kg 18000000 16000000 14000000 12000000 10000000 8000000 cut flowers 6000000 4000000 potted plants 2000000 outdoor plants 2008 2009 2010 year

Figure 5.3. Import of flowers and plants to Ukraine in kilos of production

Source: State Statistical Committee of Ukraine, 2011

5.2.4. Own production capabilities

Recent complication of exports to Ukraine pushes the research to brief analysis of the own production capabilities. In 2009 local production was estimated to cover 50% of the cut flowers demand and only for 20% potted plants demand. (Vogel, 2010: 25) Generally there is rising interest towards Ukrainian planting material because of the complicated import procedures and the price of imported plants. However, companies working with wealthy customers prefer 100% import material to guarantee quality and constant supply.

Agriculture sector was very developed in the Soviet times in Ukraine with a big square under production, strong research and scientific institutions. Now we can witness constantly decreasing area under production, under-financed by the sate research and educational institutions. Particularly plants production for decorative purposes is relatively new to Ukrainian producers. Many nurseries are established with the importers without proper knowledge and training in cultivation techniques but with the second-hand experience adopted from trade partners (Poland, Netherlands). There is no breeding scientific base for domestic production. Most of varieties are imported as raw material 'unfinished' plants and grown up to the particular pot size by garden centers and wholesalers on separate equipped areas. Production by nurseries is traditionally specialized on ornamental monocultures. Institutionally protection of the breeding property rights is very poor in Ukraine.

State doesn't facilitate decorative plants production development and places numerous barriers in this sector segment as well. Recently adopted Tax Code of Ukraine (2010) deprives of the decorative plants producers' right to pay a single agricultural tax if they get more than 50% profits from the own decorative plant production realization. That means that the growers of decorative

planting material for 50% are obliged to produce non-decorative material. The regulation is even further complicated by the controversial provisions of the Tax Code: paragraph 14.1.234 refers decorative plants production to agricultural production activities, while paragraph 301.6.1 deprives of the right to tax privileges. Production of roses and tomatoes under "one roof" is not cost and process effective. While world floriculture business is generally prospering from narrow specialization and state support, Ukrainian stakeholders are being put in such unjustifiable conditions. Domestic production capabilities are even more constrained by the moratorium on agricultural land sales until 2012 and growing price for energy resources. However, growing demand, complicated export procedures, cheap labor and land rent leave the room for more detailed analysis for own production capacities and opportunities.

When industry is put in such conditions the absence of networking and collective efforts in industry development and strengthening business institutional environment can be seen as a striking feature. There are several non-governmental organizations whose main responsibility is to facilitate industry development: Flower Council Ukraine, The League of Garden Material Producers and Ukrainian Guild of Landscape Architects. However, evidence shows that these organizations are more actively involved in the promotional and marketing activities like fairs, trade shows, exhibitions, and promotion of domestic production capabilities through negotiating with the government, consolidation of the producers for legislation opposition, etc. When it comes to export aspects the joint protest and cooperation of the industry actors is expected. But in practice, such processes are lacking in Ukrainian plants business that weakens the sectors position further. Partially this is the result of strong government's opposition. Usually the negotiations with the state bodies end in a deadlock and misunderstandings. Several exporters and importers said that these efforts give no results even on the highest official embassy and ministry levels. However, the biggest 'hole' in the networking and collaborative processes comes from the lack of interest and understanding from Ukrainian industry stakeholders. While these processes are the basement for most successful floriculture nations like Netherlands and Germany, Ukrainian stakeholders claim that local business is far from these processes. However, they acknowledge that this doesn't facilitate the industry development and even hinders its efficiency by bringing opportunistic behavior and information asymmetry in the chain. To bring collaborative and networking processes in action requires strong institutional capacity building and changes in the business culture. "Capacity and institution building based on collective approach seem to be most successful in supporting sustainable development" (Wijnands, 2005: 10).

Despite these unfavourable conditions industry will develop. Both exporting and importing companies will adapt to local business conditions and will adjust their business strategies until it reaches new quality business level. Some companies still plan to work with import material, but 'finish' it locally; some are planning to increase the share of domestic production planting material and further export to Russia and other CIS countries; some are considering to tap into more broad range of services like e-trading and landscape design; and all are expecting to meet growing demand with constant resilience to turbulent business environment.

5.3. SWOT analysis for floriculture business in Ukraine – what are the opportunities?

To sum up: international floriculture trends are coming to Ukraine; domestic production can't satisfy local demand nor with volume nor with quality; Ukrainians despite their low income love and want to buy plants. So, yes and no – the answer for the first question raised in this section – is it a promising market? To answer this question requires in depth knowledge of the global supply chain and industry processes, the trade costs of transactions and cost of production required for managing business in such an unstable institutional environment. Further this knowledge should be used for precise and profound analysis of floriculture business possibilities and perspectives for Ukrainian stakeholders. Irrespectively of the fact whether it is import solely or own production, it should account fully for industry Strengths, Weaknesses, Opportunities and Threats that are suggest in the SWOT analysis framework for Ukrainian plants business and is presented as a final summary of this chapter.

Table 5.4. SWOT analysis for floriculture business in Ukraine

STRENGTHS	WEAKNESSES		
 Growing market, flower-loving people; Emerging institutional capacity building in the form of industry unions; Realization of the need for cooperative actions, though action is lacking; Gradually rising level of "doing the business" with a higher degree of trustful relations and collaborative culture in the supply chain. 	 High demand of low volumes and mainly cheap products; Weak institutional environment for all the stakeholders' rights protection; Unfavourable trade and production legislation; Poor market infrastructure; Small industry scale that doesn't allow narrow specialization; Still poor knowledge and low professionalism is taking place in the industry; Bad reputation of business culture; Lack of cooperation among the industry actors; Low production efficiency; Scientific and market research is lacking As a result weaker capabilities in the global floriculture industry value chain All above mentioned constrains the interest of foreign trade partners and investors 		
OPPORTUNITIES	THREATS		
 Market is far from saturation and has a market niche for both sophisticated import and cheap domestic product; Gradually rising prosperity of people bring the demand for landscape design and sophisticated production; Complicated import procedures provide bigger opportunities for own production; Transit to Russia and reinforcing own export to CIS countries without paying import tax; Developing the industry through higher collaboration, collective learning and building up sustainable relations. 	 Unstable business, political and institutional environment; Demand fluctuations; Legislative and economic uncertainties; Plants business requires big financial investments and bears big material risks due to the product perishability and unfavourable conditions for running the business in Ukraine. 		

VI. DISCUSSION AND CONCLUSIONS

The study attempted to provide the insights on the global floriculture industry value chain and position of the Ukrainian stakeholders in it. Using a broad theoretical framework aggregated with previous research, available industry data and the insights gained through the interaction with industry actors allowed approaching this objective.

To conclude, floriculture industry value chain has gone global though is largely concentrated in the main industry hubs near the traditional markets, especially the potted and garden plants chain. General industry growth is accompanied with the increasing power of buyer in the supply chain, decreasing profit margins, growing rivalry and collaboration of industry actors the same time. Dutch floriculture sector stands for most of the industry developments in terms of production, distribution, marketing, logistics, market and scientific research, breeding and cultivation techniques. The competitiveness of Dutch industry is mainly explained by flawless supply chain organization, high professionalism and narrow specialization of all industry actors and highly collaborative business culture. On the other side of the value chain the position of Ukrainian floriculture business was analysed. It is a rapidly developing market that has both growth opportunities and bears high financial risks because of the unfavourable institution environment, product uncertainties combined with business uncertainties and absence of collaborative actions among the industry stakeholders in facilitating its efficiency and development. Despite the fact Ukrainian floriculture industry is being exposed to a very unfavourable import and own production regulation, strong competition is present at the market. To capture maximum possible profit, insure the risks of unstable demand and to gain a reliable market share Ukrainian industry actors tap into wide range activities to outsource all possible market opportunities. Small industry scale and lack of knowledge doesn't allow narrow specialization. Weak institutional framework that obstructs efficient trade and production for the plants business should reinforce the processes of cooperation among all actors in the chain. However, Ukrainian market displays considerable growth opportunities as income in the Eastern European countries is gradually raising that result in a scaling demand during the last decade. Meeting these opportunities requires high degree of understanding and collaboration among all value chain actors (starting from the government up to the importers and retailers) in all processes and factors that determine its competitiveness.

While the particular research design allowed picturing the position of Ukrainian stakeholders in the global floriculture industry value chain, it failed to make explicit

judgement on the possibilities of its upgrading. To make judgements on the efficiency of the industry functioning in the given conditions and even more — how it can be further reinforced, requires more deep insights and calculations on the numerous aspects of this business in Ukraine that were touched rather superficially in this research. With this it leaves the room for further research. The institutional capacity building needed that much for the industry efficiency should account for market research development.

Further implications of the given study can be presented as an analytical SWOT framework for floriculture business in Ukraine to analyse industry's challenges and opportunities for both researchers and business' stakeholders. Insights provided on the global floriculture value chain in this research were to deepen understanding of the plants industry functioning. The results of this study can be further added up with the case studies on particular industry actors' capabilities in the supply chain and further enlargement of the given sample size.

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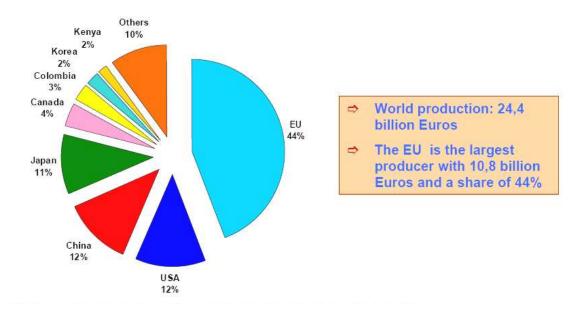
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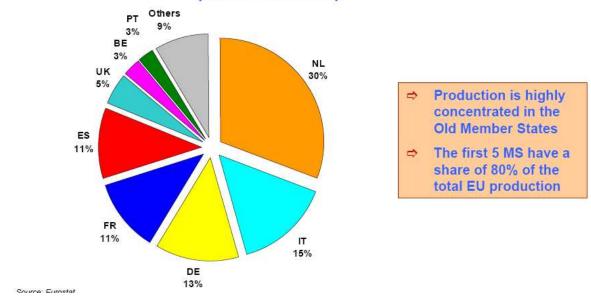
APPENDIX A

INDUSTRY GRAPHS AND FIGURES

World production of flowers and potted plants by country (share of value)

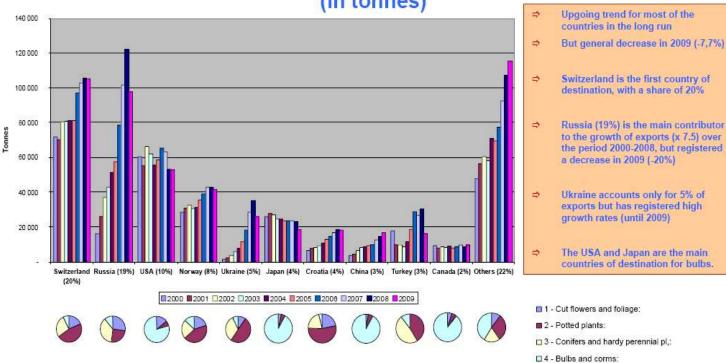


EU Production of plants and flowers* by country in 2009 (share of value)

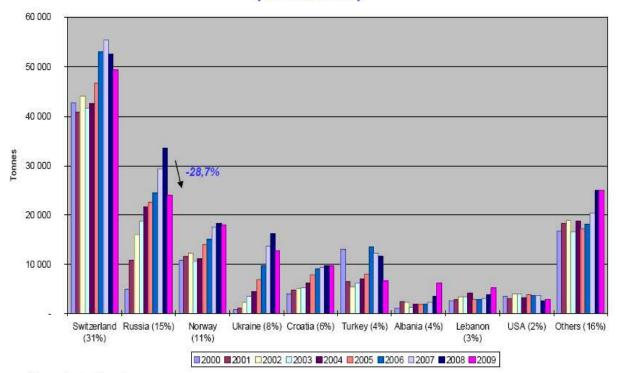


EXPORT/IMPORT OF FLORICULTURE PRODUCTS FOR EU27



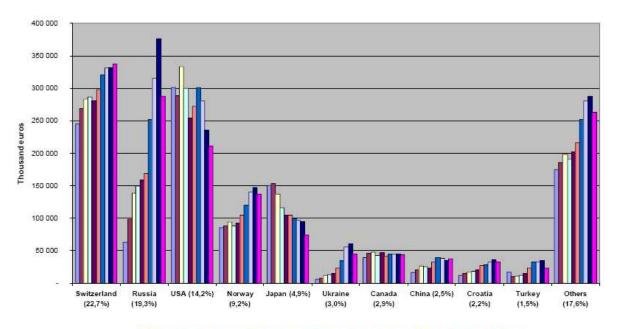


Exports of potted plants by country (in tonnes)

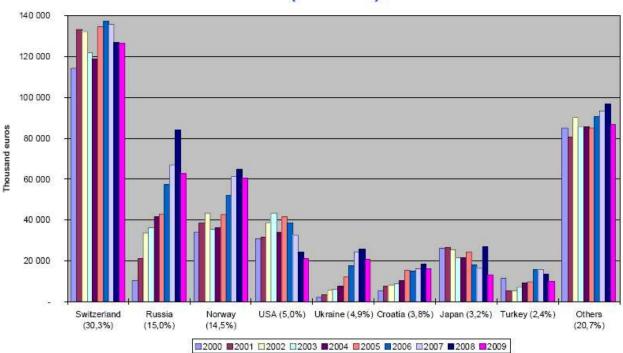


Source: Eurostat Comext

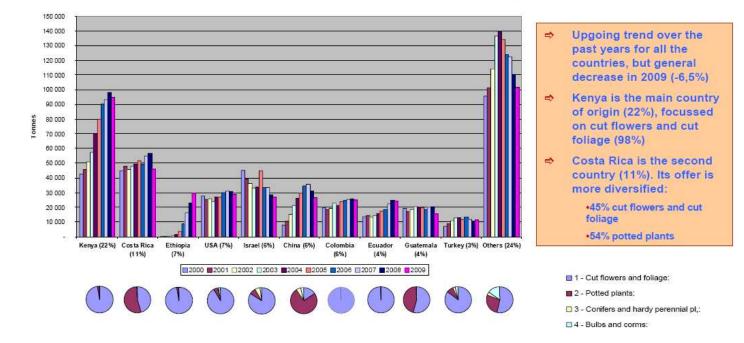
Exports of live plants and products of floriculture by country (in 000€)



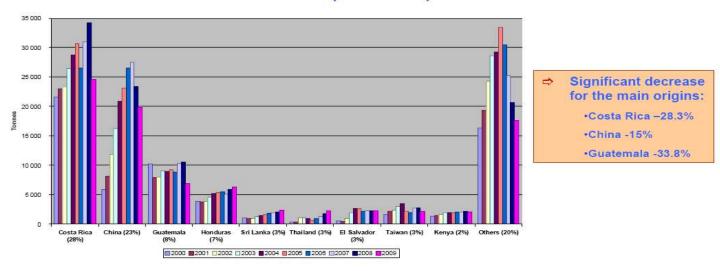
Exports of potted plants by country (in 000€)



Imports of live plants and products of floriculture by country (in tonnes)

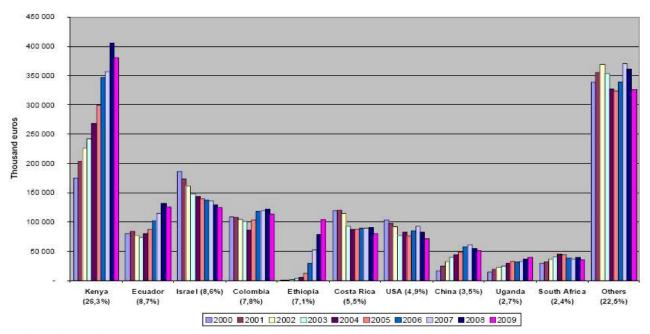


Imports of potted plants by country (in tonnes)



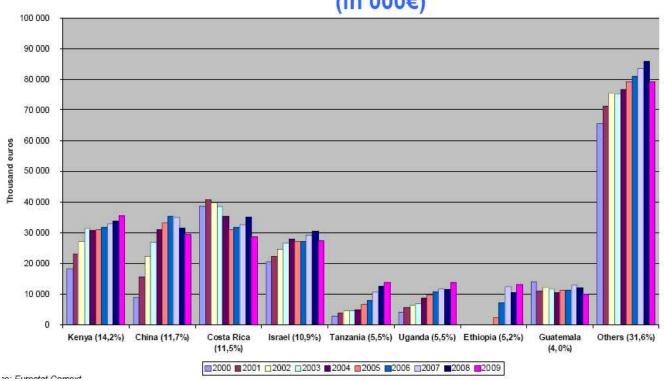
Source: Eurostat Comext

Imports of live plants and products of floriculture by country (in 000€)

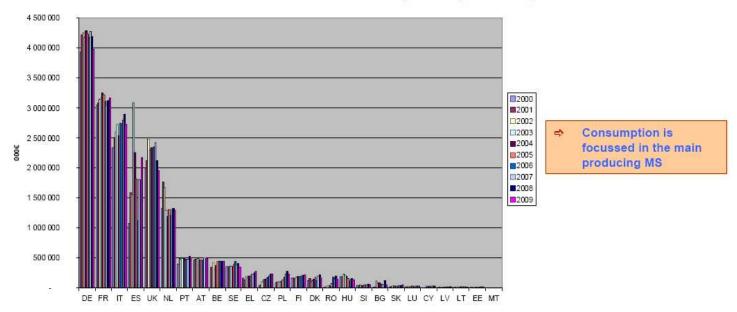


Source: Eurostat Comext

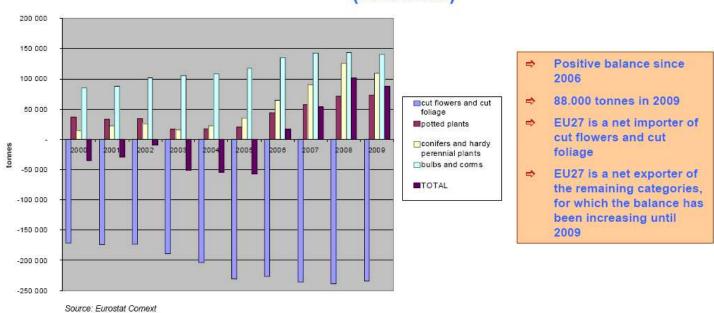
Imports of potted plants by country (in 000€)



Estimated consumption (in 000€)



Trade balance of live plants and products of floriculture (in tonnes)



SOURCE: All graphs in this appendix are accepted from the European Commission Agriculture and Rural Development Report: "Live plants and products of floriculture: Market analysis 2000 – 2009"

APPENDIX B

EXAMPLE OF INTERVIEW QUESTIONEERE 1.* UKRAINIAN COMPANIES/IMPORTERS

Date:
Company's title:
Position of the interviewee:

- 1. Specify briefly: what are the main company's activities, years on the market, etc.
- 2. Where is the company's market? Does it serve local customers only?
- 3. Supply channels:
- 3.1. Main supplying countries where the import comes from?
- 3.2. What are the criteria for what suppliers were chosen?
- 3.3. How the products are chosen (via internet, personal visits to the nurseries, fairs, etc.)?
- 3.4. How the products are bought (via action/through intermediaries)?
- 4. How the company is dealing with the logistics?
- 5. What are the barriers for the trade you and your trade partners encounter?
- 6. What are the market opportunities for floriculture business in Ukraine? And what are the future plans of the company in the market? (e-trading, expanding own production, etc.)?

[In the course of the research companies were contacted and asked to add up information on the following questions :]

- 7. Are there any institutions on Ukrainian floriculture market that foster cooperation among the industry actors in terms of opposing unfavourable legal market regulation, collective learning, etc. ?
- 8. Do any networking and 'clustering' processes at least at the initial stage take place on Ukrainian market? Meaning some collaboration among the companies in terms of getting bigger share at the market, industry development, mutual research, etc. ?
- 9. In the light of recent further complications of plants import procedures, could you please elaborate more on the aspects and opportunities of own production in Ukraine?

^{*} NOTE: The questions content and logic is varied as all companies in the sample perform different functions in the global floriculture industry value chain, have different business models and operate in different institutional environments.

EXAMPLE OF INTERVIEW QUESTIONEERE 2.* FOREIGN COMPANIES/EXPORTERS

Date:
Company's title:
Position of the interviewee:

[Questions on general floriculture industry:]

- 1. Please, summarize (briefly) main trends and patterns of the floriculture business today: production, marketing, distribution, logistics...
- 2. Will the shift towards cheaper production centres continue? How such complex supply chain is managed?
- 3. Will the traditional production and consumption hubs hold their share in the global floriculture industry value chain?
- 4. Do the growers and other industry actors reorient their production and activities for non-mature emerging markets like Eastern Europe (in terms of suitable varieties, logistical and marketing concepts) or the supply is called to meet traditional demand from EU countries and the US market?

[Questions on trade with Ukraine:]

- 5. General company's information: What are the company's main business activities (grower, exporter, intermediary)? How many years is the company on the market? Where is the main market?
- 6. Does the company work with Eastern European market? For how long?
- 7. What is the share of Eastern European market?
- 8. Does your company see it as a potentially attractive market? Why?
- 9. What are the perspectives your company sees in the Ukrainian market?
- 10. Do you see any barriers to trade with Ukraine? What are the barriers?
- 11. What are the factors that could foster successful floriculture business in Ukraine?

*NOTE: The questions content and logic is varied as all companies in the sample perform different functions in the global floriculture industry value chain, have different business models and operate in different institutional environments.

APPENDIX C

CONTACT LIST OF THE COMPANIES INVOLVED IN THE RESEARCH

Ukrainian companies	Foreign companies
Agrus – garden centre, importer, producer Kiev, Pobedy Avenue 67 T: +38 044 442 8234 T/F: +38 044 449 9750 kvd@agrus.ua www.agrus.ua	Baardse B.V. – export company (flowers & plants) Legmeerdijk 202, 1187 NK Amstelveen, Aalsmeer – Holland T: +31 (0)20 656 37 77 F: +31 (0)20 640 38 28 info@baardse.com www.baardse.nl
Flower Council Of Ukraine – official Ukrainian floriculture industry NGO Kiev, Borysa Gmyri 13, office 3 T/F: +38 044 5770425 info@cityofdreams.com.ua www.cityofdreams.com.ua	DGI – export company (flowers & plants) 1430 BC Aalsmeer, Holland Prunus 22, 1424 LD De Kwakel, Holland T: +31 (0)297 353535 www.dgi.nl
Delta Group Holland – <i>importer, post-order service, wholesaler</i> Kiev, Kharkovskoe Shose, 201/203 T: +38 0442840485 +38 0443317141 www.dgholand.freemarket.ua	FloraHolland Connect – intermediary organization Legmeerdijk 313, 1430 BA Aalsmeer T: +31 (0)297 - 39 39 39 T: +31 (0)174 - 63 33 33 infoaalsmeer@floraholland.nl http://www.floraholland.com/en/ AboutFloraHolland/Press/Pages/ FloraHollandConnect.aspx
Camellia - garden centres network, importer, grower, florist Kyiv, Feodosiiskiy ln., 14 T: +38 044 495-00-00 +38 044 524-33-45 camellia-m@ukr.net www.camellia.com.ua	Marc de Troy – grower and exporter (ornamental trees and shrubs) Kleine Smetledestraat 47, B- 9230 Wetteren, Belgium F: + 32 (0)93690967 T: + 32 (0)476408464 info@marcdetroy.be www.marcdetroy.be
Plants Club – garden centre, importer, producer Lviv, Pidbirtsi, Sportyvna Street, 8 T/F: +38 032 2433000 T: +38 063 2296036 plants.club@gmail.com www.plants-club@gmail.com	Nolina Potplantenkwekerij BV- grower (potted roses, clematises, visteriyas) Tuindersweg 5, 2481 KJ Woubrugge Netherlands T: +31 172 518265 F: +31 172 519544 info@nolina.nl

Tavia – garden centre, post-order service, grower, importer Kiev, Sviatoshynska 20, build. 2 T: +38 044 3314845, T: +38 044 4502562 info@tavia.kiev.ua www.tavia.kiev.ua	OZ Planten – export company (flowers & plants) Magnolia 1, 1430 BB Aalsmeer – Holland T: + 31 297 380 780 F: +31 297 380 790 info@ozplanten.nl www.ozplanten.nl
Ukraflora – garden centre, producer, importer Kiev, Salutnaya 2b T: +38 044 400 43 34 T: +38 044 400 31 86 F: +38 044 400 50 12 office@ukraflora.com.ua www.ukraflora.com.ua	Plantas del Caribe – import and export of tropical plants, cuttings, seeds and trees Aalsmeerderweg 258-H, Aalsmeer – Holland T: + 31 (0)297 388 888 F: +31 (0)297 388 800 info@plantasdelcaribe.nl www.plantasdelcaribe.nl
	w.b. spaargaren b.v. – export company, grower (ornamentals, garden plants) Laag Boskoop 11, Boskoop – Holland T: +31 172 217 071 F: +31 172 218 058 info@spaargaren.com www.spaargaren.com