### **Multinational Enterprises in Ukraine:**

The Relationship between Local Institutional Quality and Innovation Outcome

Von der Naturwissenschaftlichen Fakultät
der Gottfried Wilhelm Leibniz Universität Hannover
zur Erlangung des Grades
Doktorin der Naturwissenschaften, Dr. rer. nat.,
genehmigte Dissertation

von

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Tag der Promotion: 19.06.2014

#### Kurzzusammenfassung

Die Ukraine gehört zu den Staaten der europäischen Nachbarschaftpolitik. Ihrer wirtschaftliche Entwicklung ist geprägt von einem nachhaltigen Transformationsprozess der inländischen regionalen Wirtschaftssysteme von der sowjetischen Planwirtschaft hin zu einem neuen Wirtschaftssystem. Die ungleichmäßige regionale Entwicklung führt zu gewissen Behinderungen bei der wirtschaftlichen Neugestaltung des Landes. Dies hat wesentliche Auswirkungen auf die hauptsächlichen Träger des Wohlstands, nämlich die multinationalen Konzerne sowie inländische Unternehmen in den verschiedenen Regionen der Ukraine. Diese Dissertation konzentriert sich auf die Rolle der multinationalen Konzerne im Transformationsprozess der ukrainischen Wirtschaft. Berücksichtigt wurden dabei: Erstens das jeweilige regionale institutionelle Umfeld als einer der Hauptdeterminanten für die Gewinnung von Direktinvestitionen aus dem Ausland. Zweitens die Motivations- und Standort-bezogenen Faktoren, die multinationale Unternehmen bei ihrer Entscheidung berücksichtigen, in einen sich wandelnden ausländischen Markt einzusteigen. Drittens das Innovationsverhalten von Unternehmen innerhalb der Netzwerke aus- und inländischer Unternehmen in einem Wirtschaftssystem, das von regionalen Unterschieden geprägt ist.

Die wesentlichen Ergebnisse der empirischen Untersuchung lassen sich in folgende Einflussbereiche einordnen. Die bevorzugte Behandlung der Hauptstadt und der industrialisierten östlichen Landesteile der Ukraine führt zu einer gewissen Diskrepanz zwischen der Hauptstadt und den Randregionen im Hinblick auf die jeweilige institutionelle Qualität. Die höhere institutionelle Qualität der Hauptstadt spielt in Verbindung mit einem besseren Zugang zu Ressourcen eine wichtige Rolle bei der Gewinnung ausländischer Investoren. Der langsamere Transformationsprozess in den Randregionen beweist, dass das sowjetische Erbe immer noch präsent ist – besonders in der im Osten gelegenen Region um Kharkiw. Im Gegensatz dazu zieht die nahe an der EU-Grenze gelegene Region um Lemberg Investoren an – nicht nur, weil sie den klaren Vorteil einer unmittelbaren Nähe zur EU besitzt, sondern auch wegen der dort vorzufindenden Konzentration von Humankapital und eines geringeren nach-sowjetischen Erbes. Hinsichtlich der Innovationsfähigkeit der Unternehmen schneiden die multinationalen Unternehmen besser ab als inländische Unternehmen, weil sie eine höhere Aufnahmefähigkeit besitzen. Aus der regionalen Perspektive betrachtet ist die Innovationsfreude der Unternehmen in den Grenzregionen geringer als in der Hauptstadt. Im Großen und Ganzen deckt die Dissertation bedeutende regionale Unterschiede hinsichtlich der jeweiligen institutionellen Qualität auf und beschreibt deren Auswirkungen auf die Standortwahl multinationaler Konzerne und deren Innovationsfähigkeit im Rahmen des wirtschaftlichen Transformationsprozesses der Ukraine.

Schlagwörte: Multinationale Konzerne, Institutionelle Qualität, Innovationsfähigkeit

#### Summary

Economic development of Ukraine as one of the transition European Neighborhood Policy states grounds upon the process of sustainable transformation of local regional economic systems from the planned Soviet paradigm towards a new economic realm. Uneven regional development leads to the formation of certain bottlenecks in economic transition of the state with major impact on the main carriers of wealth, namely multinational enterprises as well as domestic firms located in different regions of Ukraine. This dissertation focuses on the multinational enterprises within the Ukrainian economy in transition as the source of new strategic assets, knowledge and technology taking into account, firstly, region-specific institutional environment as one of the main determinants of foreign direct investments attraction, secondly, motivation and location triggers of multinational firms' decision to enter a foreign market in transition, and thirdly, innovation behaviour of firms within the networks of foreign and domestic firms in a local regional economic system.

The main findings of the empirical research based on the enterprise survey of foreign and domestic enterprises in three regions of Ukraine address the following inferences. Preferential government treatment of the capital and industrialized Eastern part of Ukraine leads to a certain gap between the capital and the bordering regions with regard to the local institutional quality introducing by such means an offset in the possible support of local business activities of domestic enterprises and establishment by foreign firms of their own institutional environments through the means of deinstitutionalization. The higher institutional quality of the capital together with better access to resources play an important role in attraction of foreign investors. The slower transition process of the bordering regions proves that the post-Soviet legacy is still present, especially in the Eastern Kharkiv region. Close to the EU border Lviv region, on the other hand, except for having an absolute advantage of being proximate to the EU pulls in investors due to its human capital concentration and lesser post-Soviet legitimacy leading to better institutional quality of the West compared to the East. Concerning the innovation outcome of firms, multinational companies outperform domestic firms due to having the higher absorptive capacity than the latter. From the regional perspective, the innovation propensity of firms in the bordering regions is lower in comparison to the capital due to low R&D investment and involvement of R&D-related staff in the periphery. By and large, the dissertation uncovers important regional differences in local institutional quality of Ukraine and its impact on the location choice decision of multinational firms as well as their innovative output within the process of economic transition of the state.

Key Words: Multinational Enterprises, Institutional Quality, Innovation Outcome

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#### **Abbreviation**

CGS Central Government Support

CIS Commonwealth of Independent States

EL Enforceability of Legislation ENP European Neighborhood Policy

EU European Union

FDI Foreign Direct Investment
GCI Global Competitiveness Index
ICRG International Country Risk Guide
IMF International Monetary Fund

IPR Intellectual Property Rights Protection

IQ Institutional Quality

JV Joint Venture

MENA Middle East and North Africa MNC Multinational Company MNE Multinational Enterprise

OECD Organization for Economic Co-operation and Development

OIE Own Institutional Environment
PPR Physical Property Rights Protection

PRP Property Rights Protection
R&D Research and Development
RGS Regional Government Support
ROC Reliability of Oral Contracts

SME Small- and Medium-sized Enterprise

SSC State Statistical Committee

UK United Kingdom

USA United States of America
USD United States Dollar

WEI World Education Indicators WTO World Trade Organization

#### **Preface**

This dissertation was born during my time at the Institute of Economic and Cultural Geography at the Leibniz University of Hannover, where I truly enjoyed my 2 years of stay as a research assistant in a perfect working environment.

First and foremost, I am really thankful to my supervisor Prof. Dr. Javier Revilla Diez, who always provided me with support, professional advice and help, which made my scientific and personal growth possible during my overseas experience in Germany. His precise instruction and mentorship allowed me to pursue with my PhD and gather the best experience along the way. Prof. Dr. Javier Revilla Diez supported me a lot in attending international conferences, among them the Uddevalla Symposium 2013, DRUID Celebration Conference 2013, ERSA Congress 2012-2013, where I had the chance to learn from international scholars and receive their valuable feedback on my dissertation.

I also want to thank PD Dr. Daniel Schiller, who always found time and desire to advise me on my work, progress and scientific development. His wise support was more than helpful for finishing this dissertation. I am very much grateful for the time and effort he dedicated to me during my stay in Hannover. Additionally, I would like to thank Prof. Dr. Larysa Antoniuk from Vadym Hetman Kyiv National Economic University who has raised my love for science being my supervisor at the University in my home city Kyiv, and has helped me immensely with carrying out the enterprise survey in Ukraine, which was then used for my empirical research in this dissertation.

This work was part of the project SEARCH (Sharing Knowledge Assets: Interregionally Cohesive Neighborhoods), financed by the European Union under the Seventh Framework Programme for Research and Technological Development in the 'Socio-economic sciences and the humanities' area (FP7-SSH-SSH-2010.2.2-266834). The SEARCH consortium included 17 partners from different European and Neighborhoods countries. Without great collaboration with amongst others Regional Quantitative Analysis Group (UB-AQR), London School of Economics (LSE), University of Thessaly (UTH), Institute of Regional and Environmental Economy (WU), Centre for North and South Economic Research – University of Cagliari (CRENoS) and European Institute of the Mediterranean (IEMed) this dissertation would hardly be possible in the form it is available now.

The last but not least, I would like to dedicate this work to my beloved parents who have given me the opportunity to see the world, study overseas and reach out to the stars. Without their unconditional love, support and faith this dissertation could never have happened. I am also very thankful to Pavel Salatiuk, the man who has always been there for me, whose love, wisdom and kind advice have helped me to move forward and gave me lots of comfort.

#### CHAPTER A. INTRODUCTION

#### 1. Research context and methodology

Uneven levels of economic development of states around the world introduce an important concern with regard to the reasons behind the rapid growth and forthcoming catch-up of certain countries in contrast to slow transition of other states. However, these reasons are not easy to determine due to the existing differences in economic, social and historical backgrounds. Therefore, the research context of this dissertation is centered on Ukraine as a member of the European Neighborhood Policy (ENP), which includes mainly post-communist transition states and Middle East and North Africa economies (MENA). This study was carried within the project "SEARCH: Sharing knowledge assets: interregionally cohesive neighborhoods" funded by the European Union within the Seventh Framework Programme for Research (FP7). Thus, being a post-Soviet state in transition, Ukraine represents an interesting research scenario of an economy undergoing transformation within the remains of specific economic history. There are certain elements in the successful catch-up stories of current high-growth economies that could be investigated further with an aim of leveraging the disproportional levels of economic development of such states in transition as Ukraine. Over the past decades, there has been a lot investigated with regard to successful economic growth of major East Asian giants, while quite little if none has been linked to the economies stuck in the process of change from the past planned system to the up-to-date economic realm. Specific interest represents the regional perspective of the economic transformation of post-communist states due to uneven regional development of the latter and as a result disproportional regional transition.

The research framework of this dissertation is presented in Figure A.1 and is based on the analysis of a combination of three interlinked factors impacting multinational enterprises within an economy in transition as the source of new knowledge, technology and strategic assets transferred from home states to host economies: region-specific institutional environment as one of the main triggers for attracting foreign direct investments (FDIs) and as a result effective economic growth in the long run, motivation and location determinants of FDIs and innovation behaviour of firms within the networks of foreign and domestic firms as a cause-effect aspect of incoming foreign firms. Due to the fact that Ukraine is a post-Soviet state, where the remains of an old planned economy might be still present, analysis of path- and place-dependency of institutions as well as location choices of FDIs and innovation behaviour of firms allows assessing multinational enterprises in the transition economy from a different perspective. Thus, the quality of institutional environment affects attractiveness of an economy towards incoming FDIs, on the one hand, and serves as a barometer of a successful economic growth of a state, on the other. Foreign firms investing in the hosting economies, choose specific regions, where they

locate their investments. Location choice of a certain region might then be determined except from other factors, by region-specific institutional environment and cooperation or networking potential at the current location, which becomes a prerequisite of innovation performance in the long run. This leads to an acknowledgement of an important role of a sub-national level for a catch-up of the whole state. Therefore, the research methodology of this dissertation was developed with an aim to grasp the regional context and its impact on the economic processes of the transition economy.

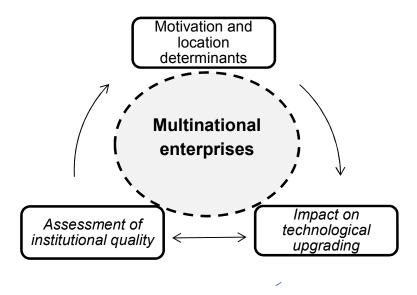


Figure A.1: Research framework of the dissertation

Source: Provided by author

In order to cover the different regional contexts of Ukraine, three types of regions were chosen for the research: a region that is close to the EU border, one that is close to the Russian border, and the capital region. While Kyiv attracted the highest amount of FDI among all Ukrainian regions, Lviv and Kharkiv are the leading recipients of FDI in the Western and Eastern regions respectively (Table A.1).

**Table A.1:** FDI distribution by regions of Ukraine

Regions of Ukraine FDI increase, reduction per year, \$ million		FDI cumulatively starting from the beginning of investment	FDI per person cumulatively starting from the beginning of investment, \$		
	2009 2010		on October 1, 2011, \$ million	2009	2010
Western region					
Volyn region	63,2	11,7	246,6	321,6	332,8
Zakarpatya region	7,3	-1,1	340,1	293,0	291,7
Ivano-Frankivsk region	134,7	-92,5	622,2	460,8	393,9
Lviv region	240,6	75,2	1 363,9	473,2	503,7
Chernivtsi region	1,7	0,5	63,4	68,6	69,1
Capital region	·				

Kyiv (city)	2 387,9	2 634,1	24 016,8	7 031,9	7 946,2
Kyiv region	178,1	77,5	1 702,8	887,4	935,3
Eastern region					
Donetsk region	107,8	424,7	2 292,2	366,1	464,6
Lugansk region	243,3	-6,3	747,3	275,0	274,7
Sumy region	85,5	114,1	348,3	207,1	307,0
Kharkiv region	472,8	622,7	2 776,7	754,6	985,0

Source: Provided by author, based on SSC of Ukraine (2011)

The empirical research of this dissertation represents the results of the quantitative enterprise survey, carried out in three regions of Ukraine from April, 2012 until July, 2012. Overall 305 domestic small- and medium-sized enterprises (SMEs) and 153 subsidiaries of multinational enterprises (MNEs) from the food and beverages and machinery and equipment sectors were surveyed in the selected regions. The criteria of selection of the sectors of the survey firms were determined by the strong presence of companies with FDI in these sectors (Table A.2). The survey companies were selected randomly from the manufacturing firms. The focus on manufacturing firms was twofold. Firstly, in order to analyse the embeddedness of MNEs and domestic SMEs into the regional institutional and economic systems of a host transition economy it was important to identify the business processes, which involved exchange of knowledge, such as innovation activities, organizational upgrading and customer-supplier interactions, which are all related to the production processes. Secondly, the linkage between institutional quality as the prerequisite of MNEs to invest in Ukraine and their further propensity of technological upgrading within collaboration with domestic SMEs was put at focus.

**Table A.2**: FDI inflows in the targeted regions in 2010, by sectors, millions of USD

Regions	Food, beverages and tobacco	Pharmaceutical and chemical products	Machinery and equipment	Basic metals and fabricated metal products	Pulp and paper products	Manufacture of textiles and wearing apparel, leather and related products	Wood and wood products, furniture
Kyiv region	481,1	75,2	699,4	67,6	112,8	148,8	23,1
Lviv region	64,3	38,2	107,6	34,5	41,9	35,9	58,3
Kharkiv region	146,5	54,3	286,4	87,9	57,4	28,6	24,5

Source: Provided by author, based on SSC of Ukraine (2011)

The sampling frame was based on the firms' directory and accounts of the State Agency of Investment and National Projects Management of Ukraine. Overall 2000 companies (1137 domestic SMEs and 863 subsidiaries of MNEs) from the food and machinery & equipment sector were contacted by phone. 400 companies were successfully interviewed face-to-face and 58 companies have filled out the questionnaires themselves and were contacted by phone afterwards to ensure the correctness of the given answers. The distribution between surveyed and

contacted MNEs and domestic SMEs in the sampled three regions is provided in Table A.3. Thus, there is no significant difference between the regional distribution of response rates, whereas the response rates of domestic SMEs are nearly two times higher than that of MNEs.

**Table A.3**: Response rate in different regions

	Lviv region	Kyiv region	Kharkiv region	TOTAL
Survey subsidiaries of MNEs	50	53	50	153
Contacted foreign firms	280	298	285	863
Response rate	17,9%	17,8%	17,6%	17,7%
Survey domestic SMEs	100	105	100	305
Contacted domestic SMEs	350	402	385	1137
Response rate	28,6%	26,1%	26,0%	26,8%
Total surveyed firms	150	158	150	458
Total contacted firms	630	700	670	2000
<b>Total response rate</b>	23,8%	22,6%	22,4%	22,9%

Source: Provided by author

For the purpose of the enterprise survey two questionnaires were developed: one for domestic SMEs and one for the subsidiaries of MNEs, both with closed likert-scale questions from 1 (very bad) to 5 (very good). Each questionnaire consisted of 6 thematic blocks (Annex 16, 17). The first block in both questionnaires was devoted to the key facts of the survey firms, such as location, ownership structure, product categories, sales, exports figures etc. The second block of the questionnaire for the MNEs covered location choices and location patterns of FDIs, asking the survey firms to rate on the scale from unimportant (1) to very important (5) such factors, as lower costs, market demand, human capital and knowledge, infrastructure, preferential policies and subsidies, proximity to customers and suppliers, proximity to other foreign firms from the same country and sector as well as to the EU border. The firms were also asked to indicate their initial aim of investment, i.e. whether they aimed at re-importing the produced goods from Ukraine to their home countries, using in such a way the Ukrainian market solemnly as a resource base, or the initial goal of investment was selling the products in the Ukrainian market only in such a way serving the latter. The second block of the questionnaire for the domestic SMEs was devoted to competition and strategy questions, namely related to local market competition and strategic management decision making. The third block was the same for both questionnaires and covered to investigation of the business environment, namely the perception of survey firms towards institutional quality. The questions in this block related to the quality of enforceability of legislation and regulation policies, physical and intellectual property rights protection, reliability of oral contracts and agreements, central and regional government at the

current region a survey firm is located in. The next block in both questionnaires introduced an investigation on innovative performance of the survey firms. The block covered among other innovation-related information the yes/no questions on whether the firms are active in product, process, marketing or organizational innovation. Moreover, both questionnaires included a block of questions on the supplier-customer relations between firms, which introduced information on the character, intensity and effectiveness of such cooperation. And the last block in the questionnaires gathered information on human capital and skills development. In this section all the questions related to availability of highly skilled staff, training and education of employees and development of their skills (Annexes 16, 17).

#### 1.1 Catch up story of the East: a test for effective transition of the post-Soviet states

Empirical studies on the catch-up of the East Asian states acknowledge the importance of institutional change for the explanation of uneven economic growth. Conducive institutional settings were prominent in many successful catch-up countries. By contrast, the institutional transformation of post-Soviet countries, including Ukraine, shows how the low quality of institutions affects economic transformation negatively. Therefore, it is important to identify facets of the East Asian success story and to discuss their relevance for the states in transition. However, it is highly demanding and often impossible to single out some properties of one context-specific institutional framework and to implement them in another institutional setting which is also path-dependent and relies on distinct informal institutions, pre-embedded from the past Soviet times. Nevertheless, there is a need to identify the impact of institutions on the economic growth and development and to provide the post-Soviet countries with a theoretical perspective, based on the experience of catch-up states, describing possible ways to grow economic potential through the provision of high quality institutional environments. So far postcommunist states, and especially Ukraine, are still lagging behind in their economic outreach. Special attention should be paid to institutional quality in different regions of Ukraine, because while more industrialized regions, such as Kharkiv and the capital, used to get promoted by the government in the Soviet times, less industrialized and agricultural regions, such as Lviv, did not get enough of institutional support. Formal rules and regulations that were created during the communist times might still be present in the Eastern part of Ukraine due to the focus on the heavy industry. Thus, the whole economic system of the East used to function according to the strict planned economy formal directives that were introduced from above. These might not work anymore within the realm of modern transformation. Moreover, strong informal component of local institutional environments in a form of local business culture and persistence of personal arrangements over the legal system of the country plays its important role in the way both domestic as well foreign firms get embedded within different regional economic systems. In such way in Lviv region, which is closer to the EU, post-Soviet legacy might be weaker, leading to

informal rules of game prevailing in the institutional environment. Therefore, it is very important to stress the role of various regional institutional frameworks within the catch-up perspective of the transition state.

Comparing institutional performance of East Asia to that of the post-Soviet states, a range of contrasting institutional factors emerge. Post-communist states show that the economic transition depends on the quality of institutional transformation. Institutional change of postsocialist states took place within the perspective of institutional path-dependency and persistence of institutions from the past. This means, that transition economies had to face centralized institutions, which led to institutional thickness and lock-in. Furthermore, an overview of institutional transformation identified an importance of fit between formal and informal institutions with respect to the acceptance of new formal institutions by path-dependent historically framed informal ones. Analysis of an institutional change in East Asian countries brought institutions as one of the key determinants of their catch-up success. The main institutional factors impacting high performing Asian economies turned out to be: industries targeting, leading sectors upgrading and firms' capabilities building, broad base education building, setting government-business relations, supporting of both domestic and foreign SMEs, and ensuring easy knowledge access by economic agents through effective market institutions. Thus, the transferability of the catch-up model of East Asian giants within the realm of postcommunist economies should be viewed within the system of four elements: role of the state, macroeconomic setting, catch-up friendly economic system and public spending.

#### 1.2 Institutional framework in a transition economy

The local institutional framework provides an important environment within regional economic systems for incoming FDIs as well as domestic firms. As far as transition economy is concerned special attention should be paid to the interrelatedness between formal and informal institutions as a prerequisite of the quality of the local institutional environment, which impacts the development of the subsidiaries of MNEs at a certain locality as well as local SMEs within a certain economic system. The role of MNEs, their subsidiaries in the host markets and cooperation of the latter with the domestic SMEs, are to be investigated with regard to the embeddedness of firms within the local institutional system based on the paradigm of a multiscalar approach in a transition economy. Thus, based on the theory of the varieties of capitalism of Whitley (2000) and Hall and Soskice (2001) in Ukraine as in the cooperative and collective capitalisms the "bottom-up" model is present, when informal institutions at the regional level influence firms and require therefore formal institutions originating from the above national level to adjust to the pre-established social routines in the society.

In Ukraine as a transition economy with Soviet past, region-specific institutional environment plays the most prominent role. This is due to the fact that institutions as such tend to

be path- and place dependent (Martin, 2008; Tridico, 2011). At the local level social norms, rules and behaviours have been formed by generations and therefore they change very slowly. Thus, informal institutional culture formed in the Soviet times might still play an influential role in the regional economic system. Formal rules and laws have to adjust to certain business culture in order to make formal and informal components of the institutional environment fit. Foreign firms investing into certain regions become the main transmitters of institutional patterns from their home countries due to multiple embeddedness of multinational firms at the level of their home countries and new host economies (Meyer et al., 2011). This is where institutional conflict between a subsidiary of an MNE and domestic institutional environment could occur, especially considering the fact that FDIs in Ukraine might get embedded into a post-Soviet institutional context. In such a way different regional institutional environments may introduce different post-Soviet heritage scenarios, which will result in certain regions becoming more attractive towards incoming FDIs than others. Thus, the quality of local institutional environment impacts not only domestic SMEs but also foreign firms investing in the target regions.

#### 1.3 Geography of foreign direct investments in Ukraine

It has been widely acknowledged recently that FDIs play an important role for economic development and catch-up of transition states (Bevan and Estrin, 2004; Frenkel et al., 2004; Meyer and Nguyen, 2005). However, the geographical distribution of foreign direct investments at the sub-national regional level has not yet gained enough attention. Therefore, the focus is laid on the regional dissemination of foreign firms investing in a transition economy of Ukraine. Location choices of multinational companies (MNCs) with regard to specific regions could be explained by traditional economic factors and institutional quality (Frenkel et al., 2004; Bevan et al., 2004; Kang and Jiang, 2012). Traditional economic factors are encountered by the OLI paradigm of Dunning (1993), which stands for ownership, location and internalisation advantages. These advantages are very motivation-specific. Thus, natural resource seeking investors, for instance, will go for cheap and accessible natural resources available at a certain location, while market seeking investors will go for certain broader market opportunities and customer demand. Institutional perspective for the location choices of MNCs has gained a much bigger interest recently, since incoming FDIs entering a transition economy are very vulnerable towards local institutional settings of hosting regions. Regional differences in the institutional environment in such a post-Soviet economy as Ukraine impact to quite a big extent the scale of adaptation foreign entrants undergo.

In this dissertation the target FDI regions in Ukraine are two bordering regions, Lviv and Kharkiv, and the capital region, Kyiv, since in these regions the enterprise survey was conducted. The selection of these regions for further analysis except for their lead in terms of FDI inflows as mentioned earlier, could also be explained by the aim to investigate regions with different post-

Soviet economic and institutional settings. Thus, Lviv region, close to the EU border region, used to be an agricultural center of the country in the Soviet times. Being close to the EU, it might by influenced by the European laws and regulations through the incoming investors from the EU to a larger extent than Kharkiv region, which borders the CIS states and thus might be more inclined towards a post-Soviet institutional setting. Moreover, the regional economic system of Kharkiv in contrast to Lviv is based on the heavy industry. Therefore, comparing two economically and institutionally different regions to each other as well as to the capital region was sought as a novel and interesting research line of this dissertation.

#### 1.4 Innovation behaviour of foreign-owned and domestic firms

The innovation potential of a regional economic system is an important prerequisite of the catch-up progress of any state. Foreign direct investors entering transition states become the sources of new knowledge and technologies, attracting in such a way domestic firms to cooperate. An output of such cooperation is the innovation performance of firms, which among other factors might be impacted by absorptive capacity of cooperating partners as well as the institutional framework of the hosting region. Thus, FDIs become certain triggers of innovation performance within the regional economic system. At the same time local institutional environment might act either as a driver of innovation behaviour of firms in case it supports the business activities of the latter or play a hindering role provided that local institutions fail to reduce risk and uncertainty to a point when firms still have enough freedom to innovate (Waarden, 2001). This is especially relevant for economies in transition and Ukraine as a post-Soviet state in particular, where post-socialist legacy might lead to certain "institutional thickness". Such thickness could be expressed through the remains of the old communist regime pre-embedded into the society, limiting firms' business performance.

Innovation behaviour of firms may differ by sector. Thus, in this dissertation two different technology-intensive sectors were put in focus for the aim of conducting an enterprise survey, namely, food and beverages sector and machinery and equipment sector. Intensity of inter-firm cooperation between an incoming FDI and domestic firm as well as absorptive capacity of both partners play essential roles for the innovation performance in both sectors. However, within the realm of the post-Soviet economy in transition in a low-tech sector innovation potential might be higher than in a high-tech sector. The reasoning could be expressed by the fact that low-tech industries require less knowledge- and technology-intensive cooperation between firms, which in the long run might result in an overall higher innovation potential in the low-tech sector compared to the heavy industry sector where high-tech cooperation of firms could be inefficient due to low absorptive capacity of domestic companies (Kravtsova and Rodosevic, 2012; Garcia et al., 2013). According to Blalock and Simon (2009) firms with stronger production capabilities, which is the case for machinery and equipment sector as a heavy industry, benefit less from

cooperation with foreign entrants than the rest. Absorptive capacity of such firms from the Soviet past might be limited by the current strong presence of the old planned system, such as R&D personnel with skills that no longer correspond to the reality of the market and availability of an old technological base making introduction of any innovative product lines merely impossible.

#### 2. Objectives and research questions

There has been widely acknowledged in the recent research the importance of a thorough analysis of the impact of FDI inflows on the economic growth of a transition state. However, the main determinants and outcomes of FDI activities at the regional level of a post-Soviet state with regard to its catch-up potential have not yet gained enough attention. Thus, the dissertation aims at (Figure A.2):

- firstly, provision of a conceptual framework on the similarities and differences of the catch-up process of the East Asian states and post-Soviet economy in transition in order to identify the areas of possible bottlenecks of successful catch-up of such a post-Soviet ENP state as Ukraine;
- secondly, identification of the regional differences in local institutional environment within certain regional economic systems in Ukraine assessed by foreign and domestic firms taking into consideration that there are significant differences in the extent to which post-Soviet informal and formal institutions are still present in different regions;
- thirdly, analysis of the geography or location choices of incoming FDIs concerning the classical economic factors that attract foreign investors to a certain location as well as institutional context, which may either support or hinder the embeddedness process of foreign and domestic firms within a specific regional economic system;
- fourthly, research of the innovation behaviour of domestic firms cooperating with foreign entrants within two different sectors, namely low- and high-tech sectors, and in a certain institutional context aiming at identification of the differences in innovation pursuits of firms within different regional economic systems.

#### **Research Questions Research Objective** perspective Theoretical Can the experience of the East Asian catch-up be used #1. Analysis of the catch-up model of East Asia within the realm of a post-Soviet state in transition? Are there regional differences in the quality of institutions in #2. Assessment of regional Ukraine? How do subsidiaries of MNEs and domestic SMEs located differences in local in different regions of Ukraine assess the quality of institutional environments institutions deployed in the country and what determines the Empirical perspective differences in their assessment if any? 4. What are the motives of foreign investors coming to different regions of Ukraine? #3. Stating the reasoning What are the traditional region-specific factors that behind the location choices of determine the location choices of foreign firms in Ukraine? **FDIs** How does regional institutional quality in Ukraine impact the propensity of foreign firms to invest in certain regions in Ukraine? What regional, sectoral and ownership differences are there #4. Research of innovation in the way firms innovate and what determines the propensity of foreign-owned innovation behaviour of foreign-owned and domestic firms? and domestic firms How does local institutional quality impact innovative activities of firms?

Figure A.2: Research objectives and questions

Source: Provided by author

Objective #1. The objective addresses the issues of institutional transformation in the post-Soviet economy of Ukraine and catch-up countries, namely East Asian economies. The focus is laid on the importance of institutions for economic growth and development. An overview of the theoretical concepts of the impact of institutional transition on the catch-up of the high performing Asian economies opens an urge to investigate what were the reasons for post-communist states in transition not catching up as fast and how institutional frameworks of East Asia could possibly be used within the reality of other transition economies. This will help to better understand the effectiveness and future potential of Ukraine's integration into the world economic frontier, specifically with regard to the institutional capabilities of an emerging market.

Objective #2. The objective determines the interdependence of institutions, both formal and informal, as an important prerequisite of a high quality institutional environment, which plays an essential role in identification of the existing bottlenecks of economic transition in the post-Soviet state. The research covers the issue of embeddedness of firms within different levels of institutional governance, introducing a multiscalar approach to institutional co-dependence. Analysis of the region-specific institutional quality and the determinants impacting the latter together with identification of the role local institutional environment plays for the

embeddedness of foreign-owned and domestic firms within the regional economic system is put in focus.

Objective #3. The objective identifies determinants of location choices of FDIs in such a transition economy as Ukraine. The goal is to provide an economy with post-Soviet heritage with a theoretical and empirical perspective on the possible ways to grow economic potential through provision of attractive host economies for the incoming MNCs, since the role of FDIs for economic growth and development of states, regions and cities has been widely investigated recently. Both classical economic factors as well as institutional perspective are analysed while assessing geography of FDIs in Ukraine.

Objective #4. The objective investigates the factors impacting innovation performance of foreign-owned and domestic firms in different regions of Ukraine. The analysis covers inter-firm cooperation between domestic and foreign-owned firms, their absorptive capacity and local institutional environment as the main determinants of innovation performance of firms. Moreover, the research is centred on two different sectors, in which survey firms were interviewed. These are machinery and equipment and food and beverages sectors, which are very different in terms of their technology intensity. Thus, this allows determining innovation behaviour of firms within low- and high-tech sectors.

#### 3. Dissertation outline

The dissertation consists of six chapters as shown in Figure A.3. Chapter A presents the contextualization of the research, introducing research context, methodology, objectives and questions. Chapter B provides the first theoretical perspective of the dissertation via investigation of the successful catch-up process of the East Asian states and determination of possible replicability of the East Asian model within the realm of a post-Soviet economy in transition. Chapter C explores empirically the role of local institutional quality for the development of domestic SMEs within a regional economic system as well as subsidiaries of foreign MNEs entering the latter. Chapter D focuses on the location choices of FDIs in Ukraine, providing an empirical overview of both traditional economic factors impacting a foreign firm's decision to locate its investment in a certain region and an institutional framework. Chapter E analyses innovation behaviour of domestic and foreign firms located in a certain regional economic system with regard to the intensity of inter-firm cooperation, absorptive capacity of the partners and special attention is paid to the institutional context playing either a triggering or a hindering role for innovation progress of firms. And the last but not least, chapter F finalizes the dissertation, introducing answers to the research questions introduced in chapter A, concluding remarks as well as limitations of the current study, and recommendations for future research together with some important policy implications.

CHAPTER A	INTRODUCTION
CHAPTER B	SIMILARITIES AND DIFFERENCES OF INSTITUTIONAL CHANGE IN ENP AND OTHER CATCH-UP COUNTRIES
CHAPTER C	THE ROLE OF LOCAL INSTITUTIONAL ENVIRONMENT FOR THE DEVELOPMENT OF MULTINATIONALS AND SMEs IN UKRAINE: A TRANSITION ECONOMY PERSPECTIVE
CHAPTER D	LOCATION CHOICES OF MULTINATIONAL COMPANIES IN UKRAINE
CHAPTER E	IMPACTING INNOVATION BEHAVIOUR OF FOREIGN AND DOMESTIC FIRMS: THE CASE OF UKRAINE
CHAPTER F	CONCLUSIONS

Figure A.3: The outline of the dissertation

# CHAPTER B. SIMILARITIES AND DIFFERENCES OF INSTITUTIONAL CHANGE IN ENP AND OTHER CATCH-UP COUNTRIES

Empirical studies on institutional change have proven the importance of institutions, both formal and informal, for the explanation of uneven economic growth. Conducive institutional settings have been in place in many successful East Asian catch-up countries. By contrast, the institutional transformation of countries that are part of the ENP shows how the low quality of institutions affects economic transformation negatively. It is the aim of this chapter to identify facets of the East Asian success story and to discuss their relevance for the ENP countries. Firstly, characteristics of institutional frameworks that potentially support catch-up processes are discussed and those elements of the East Asian case are combined in a conceptual framework that could be potentially used and adjusted within institutional transition in other regions. However, it is highly demanding and often impossible to single out some properties of one context specific institutional framework and to implement them in another institutional setting which is also path-dependent and relies on distinct informal institutions. Thus, the limitations to the transferability are also discussed. In the empirical part, the quality of institutions and the path of institutional change in post-communist and MENA countries is compared to the situation in East Asia.

#### 1. Introduction

It has a been a long-way concern for many scientists today, why some economies develop and grow very fast and change the world economic map dramatically, and other developing countries still lag behind, while the experience of success cases might be replicable. What all the scholars on the topic demonstrate is that besides geographic positioning and trade, which are definitely responsible for the determination of income levels around the world, institutions, specifically the quality of institutional environment, outstrips everything else (Rodrik et al., 2004). It is believed that societies that encourage investment through the means of incentives and high quality institutional environment will be richer rather than the ones, who do not do so (Acemoglu et al., 2002).

In this dissertation under institutions formal and informal organizations, rules and policies, which encourage enforceability of law, property rights protection, and government support aiming at building up of a high-quality institutional environment are meant. It has been a long debate on the subject of institutions being the same as organizations or not. Evolutionary economic geography implicitly distinguishes between institutions and organizations and institutions and routines, attributing institutions to specific territories and routines to firms. In such a way, institutions bear a territorial character being embedded in specific regional systems

(Rafiqui, 2009). Informal component of institutional environment is supposed to be as important as the formal one, since as Tridico (2011) highlights it, acceptance and success of the new formal institutions depends on the fit with informal institutions, which already exists in the society. As North (1990) puts it, institutions, being the rules of game, and humanly incorporated constraints that form human behaviours, informal rules, social contracts and business culture, tend to have a limiting effect on how economic agents interact and thus on the whole economic development.

Institutional change in East Asia and other transition economies of the European Neighborhood Policy, namely Eastern European post-Soviet states and the MENA region countries, is specifically addressed in this chapter. East Asian countries are taken for comparison, because currently ENP countries are at a more similar development level with the East Asian states at the time of the start of their catch-up history and growth as emerging countries rather than with the those Eastern European states, new EU-members, in which the institutional change was spurred within the process of a quick integration with the EU. Institutional evolution as the prerequisite of economic growth depends on some specific determinants, which ensure context specific characteristics of transformation of institutional frameworks over time. Different scenarios of institutional transition in East Asia and post-Soviet states prove that it is determined by country's values, history, traditions and norms, which in the long run affect the acceptance of formal rules and regulations. Intrinsically analysis of differences and similarities of institutional change between East Asia and post-communist economies goes within the lines of old and new institutional economics. Institutional change, which took place in the independent states after the collapse of the Soviet Union, can be explained from the perspective of old institutional economics, according to which "old and inefficient economic institutions can persist even when economically inefficient if they guarantee the pursuit of their original objectives, and when the power groups, the guarantors of these institutions, still consider them appropriate for the protection of their interests" (Tridico, 2011, p.125). By contrast, institutional transformation and its impact on economic catch-up for the East Asia states goes in line with the new institutional economics theory, stating that institutions are there to reduce transaction costs and new institutions emerge when the old ones are not able to reduce the transaction costs anymore (North, 1990). In such a perspective, inefficiency of bad institutional frameworks and the influence of institutional environments on economic growth and development are addressed further in this chapter.

What exactly brings institutions up front and why East Asian countries managed to profit from their institutional environments and European Neighborhood Policy states did not perform so well, facing institutions as obstacles for their development, is put for the discussion. Acemoglu et al. (2001, 2002) and Nagy (2002) refer with their reasoning of unsuccessful institutional development of transition economies towards the initial conditions and historical

path-dependency of institutions. The authors state, that institutions are inherited by the countries together with their history and therefore the costly process of changing bad institutions for good ones is not attractive for governments. Thus, in both post-Soviet states and the MENA countries, the power of the government lies in the hand of certain political groups as a result of deeply-rooted not transparent and corrupted political regimes. As such political groups represent certain political interests, which provide an incentive for certain direction of the state government. Being adapted to the existing labyrinths of political power the government benefits from the old rules of the game. Therefore, the government itself is not interested in institutional transformation due to taking advantage of the "loopholes" in the existing system. Lee and Mathews (2010) on the other hand, underline that East Asian countries proved to be high performing and economically successful because they managed to use their institutions for the benefits of economic growth.

This chapter consists of the following parts: section 2 deals with the question, why institutions are important for the catch-up, discussing in detail the success story of East Asian countries and the Washington Consensus versus the BeST Consensus. Section 3 covers the conceptual framework and deals with the question if the experience of catch-up of East Asia can be used in other transition states. Section 4 discusses the transition of post-Soviet states and the MENA region. Section 5 provides the data of the previous research carried out in terms of institutional assessment of the economies by World Bank and World Economic Forum. Section 6 deals with the summary of the entire paper.

#### 2. Institutional frameworks for successful catch-up

It has been largely accepted in the literature that economic systems are influenced by institutions (North, 1990; Tridico, 2011). Differences in economic performances of states can be explained by a range of factors, such as among others macro- and microeconomic parameters, geographical positioning, level of openness of the economy, low barriers for international trade. Institutional performance within the specific regional, social and historic contexts directly impacts the above indicators of economic growth and development (North, 1990). Moreover, it has been largely accepted by evolutionary economic geographers that knowledge creation and technological development are the drivers of economic growth. Institutions do impact the formation of incentive mechanisms that enable investments in human capital and technology, that later on lead to economic growth (Rafiqui, 2009).

Economic transformations are backed up by certain institutional changes to create context specific conditions and frameworks for these transformations to take place. Institutions are endogenous to economic development, because the latter starts with institutional change aiming at getting the right institutions in place to adapt economic changes to the new circumstances and environments (Tridico, 2011). Hodgson (1995) comparing evolutionary change of institutions to the Darwinian process of biological change, stresses out that institutions are path-dependent and

strictly endogenous and the change of formal and informal rules and regulations always comes first before the other transformations take place.

Variation of institutional change over space provides evidence that institutions are spatially or geographically related. Thus, looking at Asian, North African and Eastern European economies, it becomes obvious that socioeconomic progress of these countries differs drastically. The rapid growth of East Asia has challenged other parts of the world with a firm statement that there is a range of drivers, which enforce such an economic outstrip. Taking a more detailed view into what these drivers are, the question arises what in particular enforced the development in East Asia and lacked in other transition economies while they were lagging behind. Here institutions come up front with examples of high performing East Asian economies, which managed to outperform economically major economies of the world, having previously established high quality institutional frameworks with more liberalized and supportive government presence in the economy in some Asian economies and more restrictive roles in other. Thus, in Thailand and Vietnam the government role was much more liberalized and distant from the economic life of the states, and in China and South Korea the government has played a very restrictive regulatory role. As a result, Thailand and Vietnam still lag behind with respect to their economic indicators and global competitiveness in comparison to China and South Korea (World Bank, 2012; World Economic Forum and the OECD, 2011).

The IMF and the World Bank, both institutions based in Washington, were stressing out the importance of deregulation, trade liberalization and the free market formula, which counted mainly for the market taking the lead on the basis of supply-demand law of an economic model. Washington Consensus was introduced by John Williamson in his book "Latin American Adjustment" (1990) and together with a range of factors favouring secure and stable macroeconomic regime, especially in the field of fiscal regime, the consensus promoted free market policies (Lee and Mathews, 2010). It encouraged principally trade liberalization and deregulation favouring in such a way the market in charge of economic growth. Macroeconomic stability reached by the means of fiscal discipline, tax reforms and export growth were supposed to be the prerequisites of economic development.

In 1993 World Bank introduces "The East Asian Miracle" report, in which it favours neoclassical view, or a "market friendly view", although it also indicates a revisionist view, or a "government friendly view". World Bank challenged an explanation of the East Asian economies success with raising questions about the relationship between the government, the private sector and the market. Although the government appears to be an important player on the arena, it is mainly expressed through sound macroeconomic policies towards effective macroeconomic management and broadly based education system in the context of such relationships. Moreover, it is clearly stated that an extraordinary growth of high performing East Asian economies was due to the accumulation of physical and human capital together with an enforcement of FDI investment and technological upgrading (World Bank, 1993). Thus, World Bank promotes clearly the role of the market and competition, export growth and macroeconomic stability, increasing savings and productivity change in flexible labour markets in the achievement of economic upheaval by high performing East Asian countries. Within this perspective World Bank partly supports the basics of the Washington Consensus, giving the floor to deregulation, trade liberalization and privatization as the drivers of growth. Of course, it is hard to argue that these determinants do not work for economic development. What comes up to be important in this respect is the location specific context and historic conditions attached to this context, in which Washington Consensus can work.

Thus, the success story of Asian emerging markets should not be treated homogenously. While within the macroeconomic indicators, such as fiscal discipline, public expenditure to health, education and infrastructure, tax reform, exchange rates, securing of property rates, South Korea, Taiwan and China had similar perspectives, they were more selective towards other elements of the Washington Consensus. Differences of the East Asian national governments regulation with respect towards trade liberalization, privatization, and FDI attraction provide an example of context specificity of those conditions impacting catch-up. In such a way, trade liberalization in South Korea and Taiwan was limited until the 80's, while in China the restriction lasted till 2002. The wave of privatization happened in South Korea and Taiwan in 60's, and in China the state owned enterprises are still very dominant (Lee et al., 2011). Special attention deserves the aspect FDI attraction, since enforcement of foreign direct investment makes not only an inflow of capital and physical resources, but also an inflow of knowledge assets, human capital and technological transfer, all playing a prominent role in upgrading process and catch-up (Bevan and Estrin, 2004). The FDI inflows in South Korea have been heavily restricted, in Taiwan there has been a thorough government control introduced over the barriers to FDI and in China certain sectors have been closed for FDIs as the result of sector targeting (Lee et al., 2011).

Industry targeting though should be addressed quite carefully. In this respect the major concern is what industries should be targeted and how does the government select the right industries. Targeting should proceed strategically towards those industries, which outperform externalities or market failure in terms of the gap between private and social return. Technocratic insulation can be also addressed within the perspective of targeting of the right industries. Technocratic insulation means "the ability of economic technocrats to formulate and implement policies in keeping with politically formulated national goals with a minimum of lobbying for special favours from politicians and interest groups" (World Bank, 1993, p. 167). This was the way for South Korea to establish successful telecommunications services industry, oriented for

export, which was primarily overtaken by MNCs and JVs. South Korea managed to do so only with the help of government, supporting technological transfer, upgrading and building of own manufacturing capabilities of firms (Stiglitz and Yusuf, 2001).

The role of the government in South Korea, China and Taiwan managed to create a reliable legal framework, which makes the promotion of national and international competition possible and therefore, enforces economic growth. In comparison to other developing countries, East Asian economies turned out to be more successful in creating a strong legal regulatory environment, which enabled property rights protection and rule of law as a good platform for economic development. Rodrik et al. (2004) stresses the importance of property rights and rule of law as the prior rules of the game of a society, yet relying on the context specificity depending on the historical trajectories, geography, political economy and other initial conditions (Acemoglu et al., 2002). Findings indicate that when the property rights are protected, the whole economy is growing better. A proof to this is the different experience of Russia and China. Chinese entrepreneurs felt sufficiently more secure to make large investments, which also played a prominent role in the rapid catch-up of the country, whereas in Russia, investors were still afraid to get use of the private property rights, because they were not securely established within the whole legal system.

The role of the government is clearly coming up front in the discourse of discussion of an unprecedented growth of high performing Asian economies and failure of Eastern European countries together with North African states to catch up as efficiently as their Asian counterparts did in 1990s. Scholars refer to the orthodox Washington Consensus policies as the reason for poor economic performance of a range of post-Soviet economies after the reforms of 1980s and 1990s did not work out well (Tridico, 2011). Having realized the critical points of the institutional complexity preceding economic catch-up.

Realizing the ineffectiveness of non-government economic regulation and failures of economic growth without solid institutional frameworks, Lee and Mathews (2010) refer to Beijing-Seul-Tokyo Consensus for economic development as a substitution for Washington Consensus. The focus of the Washington Consensus, international financial institutions proposed the so-called "Augmented Washington Consensus", in which an important institutional platform was introduced. However, the institutional catch in the renewed Washington Consensus still had a limited perspective on broad government policies, market institutions and social dynamics as essential ingredients of the

BeST is a range of flexible underpinnings of certain policies and strategies that encourage capability building and development of a sound institutional platform (Table B.1).

Table B.1: Washington Consensus vs. Augmented Washington Consensus vs. BeST

	Washington Consensus (1989)	Augmented Washington Consensus (2000)	BeST (2010)
Role of the state	Weak role of the state (liberalization, deregulation and privatization of state enterprises)	Growing role of the state (enterprises under corporate governance)	Strong role of the state (industries and technologies targeting, leading sectors upgrading, gradual phasing out of non- market interventions, pilot agencies guiding the industrialization)
Macroeconomic settings	Lowering inflation, trade deficit, FDI attraction	Anti-corruption, flexible labour market, inflation targeting, adherence to World Trade Organization (WTO) standards	Stable macroeconomic settings (lowering unemployment, stable inflation, stable budget deficit)
Financial system	Fiscal discipline, tax reform (no or small growing rate), unified exchange rates, liberalized interest rates	Adherence to international financial codes, "careful" capital account opening, non-intermediate exchange rate regime, independent central banks	Catch-up friendly system ("easy" crediting conditions, financial incentives for upgrading and opening of new enterprises)
Public expenditures	Reduction of public expenditures	Public spending for social safety standards and poverty reduction	Public spending for firms' capabilities development and broad-based education building
Economic growth potential	Market	Market + Government	Government -> Market

Source: Own draft based on Lee and Mathews (2010); Rodrik (2004); Tridico (2011)

Contrary to the Washington Consensus and Augmented Washington Consensus, BeST introduced conservative macroeconomic settings, selective opening of industries for incoming FDI flows and industry targeting, i.e. selection and attraction of technological transfers to those industries which were meant for catch-up. A special attention must be paid to the following aspects, introduced by BeST: creation of pilot agencies to guide industrialization, targeting industries and technologies and upgrading of the leading sectors, building broad-based education, from primary to tertiary education, provision of advanced knowledge access and firms capabilities building. The whole concept of government interventions into the economy through the means of pilot agencies and industry targeting introduced in BeST supports the assumption that the government has to come first in setting the rule of the game and the market is to come second to play this game. State intervention in East Asia did not paralyze the market self-regulation function. It had more a supplementary role of adding disciplinary functions without

any intention of weakening the market discipline. The aim was to target the industries up till that point of time, when they will be able to compete internationally. In order to pursue with these industrialization frontiers, East Asia required definitely strong government and leadership.

Another important institutional component addressed by BeST and not mentioned by the International financial institutions is higher education. In contrast to Washington Consensus BeST Consensus includes broad-based education as one of its core determining factors for economic growth. BeST stressed out the importance of a complete educational system, namely from primary to tertiary education, since for technological upgrading and firms capabilities building these are people skills that matter the most. Education policies are primarily of interest for the development of human capital, accumulation of which is also seen as a prerequisite of East Asian growth success. Education reflects the level of structural change in the human capital, which is represented by people and their abilities to perform within the economic system which is transforming and their readiness to accept the outcomes of such transformation. Lee and Kim (2009) have also proved that institutions and secondary education as a part of an institutional framework do matter for "lower" income countries during transition from low to middle-income countries, whereas tertiary education and technological innovation are important factors for "higher" income countries when upgrading to high-income groups.

By and large, the role of the state in the catch-up story of East Asia is unprecedented. Interestingly enough is how East Asian governments managed to find a balance in the levels of government interventions and their ability to integrate and embed institutions not only into the economy, but also into the society. Rapid and successful growth of South Korea, Taiwan and China with strong restrictive role of the state compared to still trapped in between Thailand and Vietnam, for example, with a much more liberalized and diminished role of the government in the economic activities proves that obviously institutional framework does impact the economic growth and development of states. However, addressing East Asian success as miracle in its pure sense is also a risky take. The BeST Consensus has its own strengths and weaknesses, which have proved to be valid over time and were revealed to a greater extent at the times of the Asian Crisis. On the one hand, the government role in South Korea, China and Taiwan within the framework of strengthening the role of the state in economy according to the BeST did pay off. The governments provided a wide range of programs concerning the savings promotion, strengthening and expansion of financial institutions, education enhancement and macro stability (Stiglitz and Yusuf, 2001). Through the support of certain sectors and exports enhancement, these sectors have become the main baseline of the economies in the future. On the other hand, there are still a lot of critics around such industrial policies and their quantities characteristics. In the end such targeting resulted in relying of China and South Korea solemnly on the investment of their own firms, while Singapore's and Malaysia's strategies of market openness towards FDI

and liberalization gave them an unprecedented advantage of international reach in the long term perspective (Stiglitz and Yusuf, 2001). Thus, different policies undertaken in different national economic systems only prove the heterogeneity of the Asian growth and catch-up on the world arena together with fact that the BeST Consensus should not be taken for granted as the "one size fits all policy", but rather be analysed in the light of context-specific environments of different states.

# 3. Conceptual framework: Is the East Asia success story replicable by other regions?

The main question arises whether the success of East Asian countries and the BeST Consensus can be taken into consideration in other developing states, specifically the former Soviet Union and the MENA region countries? It is important to analyse how institutional factors, being an engine for the East Asian miracle, can also drive other transition economies growth through stimulation of innovation and upgrading by firms. Catch-up now appears to be viewed as a process. Geschenkorn (1962) points out that the comparative advantage of countries lagging behind is that they can really use the knowledge of the developed counterparts. He calls it a "late comer effect" and explains it through the process of specific imitation of the successful institutional change practices by less developed countries, which in the long run helps the latter to catch-up. This is a competitive advantage for countries, which are still economically underdeveloped to learn on the experience of well-developed countries and adjust development scenarios of the latter to their own specific contexts.

In Figure B.1 the conceptual framework for analysis of the role of institutions for economic development and growth within an economic system is presented at three levels: supra-national level of the global economy, national and sub-national levels. Economic system comprises all the elements, that are linked with each other, each playing its specific functional role. Global economy impacts the formation of the economic system of a certain state through the multinational companies, which are the investors within this economic system and act according to the supra-national trade and investment regimes. Entering the national economic system the firms strive to get embedded into the latter through the means of becoming the active players of the local market, accepting the rules of the game of this market, and through the integration within the local industrial structure. Market and industrial structure of any state belong to the national level, because national governments regulate them. But when it comes to the catch-up potential of the economic system the strategies of the national and regional governments are different, because an upgrading of a system involves an upgrading of the place-specific elements of the latter. This is where the regional aspects come into force and constitute the sub-national level of the economic system with the conditions of specific locations. At the level of regions the strategies of regional governments become dependent of the pre-established conditions of this

region. Thus, to enable the catch-up of the system the market and industrial structure have to enable foreign and domestic firms to contribute to the growth and development of the regional economic system.

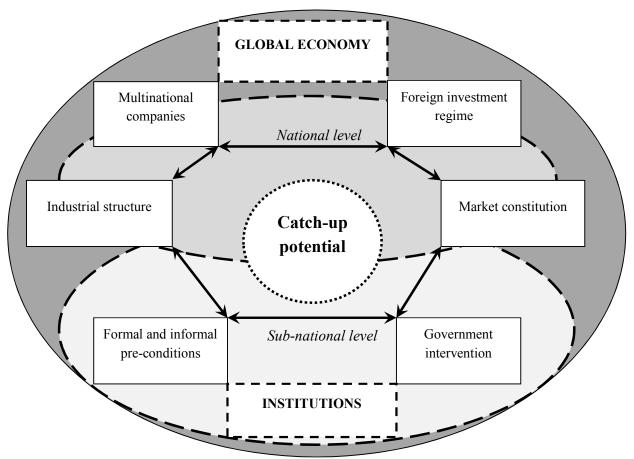


Figure B.1: Conceptual framework on catch-up

Source: provided by author

At the level of regions and localities institutions become the most place- and path-dependent (Rafiqui, 2009; Martin, 2008). Institutions, both formal and informal, play an important role of glue in the economic system, which coordinates the actions of all the agents. According to BeST Consensus formal institutions, established by the government, play a central role in organizing the way the economic system works. Therefore, formal institutions might influence the market significantly serving as an important prerequisite of establishment of a profound legal base for the functioning of firms in the regional economic system. In the conceptual framework the influence of the formal institutions on the market is expressed through the government intervention. Stiglitz (1996) underlines that in principle the basic elements East Asian miracle could be used for economic transformation in other transition states, if there was a provision of the following formal institutional incentives for the growth of developing markets: macroeconomic and political stability; broad investment in education; government policies could adapt to the changing circumstances and environments and focus on encouraging direct

investments; governments were efficient in creating market institutions, like development banks and capital markets, so that markets could work more effectively; governments would aim at government-business cooperation, meaning introduction of such programs by the governments that could serve corresponding needs of the business community. An important aspect addressed here is that the governments of East Asian states did not aim at replacing markets through the exaggerating of the governance dominance in the market regulations, competition, supply and demand prospects, but aimed at effective support the normal functioning of the markets through sound regulations and policies. Stiglitz (1996) states that the main mistake of the former Soviet Union countries and other socialist transition economies were that they tried to replace the market system through the planned government dictatorship without any economic rationale behind when there was a market failure observed. The same can be observed in the MENA region states, when the government becomes so dominant, that actually suffocates the market and healthy competition. In East Asia, on the other hand, the government took action and supported the market, never intending diminishing its role in its original sense. Thus, governments played a big role in the establishment of the efficient market institutions, such as long-term development banks and capital markets aimed at bonds and equities trading. This lead to the development of the market institutional infrastructure, that enabled the markets to work more effectively. The governments also enforced the control of financial markets so that the resources were invested with the aim of further market growth. The development of a favourable business climate was also an important input originated by the government for the supplementing of the market role in the economic system. As Stiglitz (1996, p. 173) puts it: "By using, directing, and supplementing markets rather than replacing them, the private sector remained the centre of economic activity in most of the East Asian countries; when the private sector disagreed with the government, it was permitted to go ahead and risk its own capital".

One of the most important reasons, why other transition economies, like post-Soviet states and the MENA region countries, were not able to replicate the story of high performing East Asian economies, is that initially because of the high dominance of the government in the economy, hindering the progressive development, the concept of institutions was viewed as a burden for economy. Bureaucracy, corruption, unfair standards of planned economy tracing back to the Soviet times led to what Stiglitz and Yusuf (2001) called a "corrupt government view", when government's relationship with the business results in corruption. This led to the formation of specific informal institutions, which comprised characteristic social norms, values, beliefs and behaviours of the society, which influenced the development of business culture and attitudes towards formal institutions. Informal institutions prove to be important ground for the development of effective institutional frameworks. This is indicated in the conceptual framework within the framework of formal and informal pre-conditions. Firms are the generators of informal

rules, codes of conduct, social standards and behaviours through their employees, thus generating informal pre-conditions At the regional and local levels development of personal contacts in order to make a beneficial use of them is crucial for foreign-owned firms, which need to build up certain networks, at the same time for domestic firms it is the reliability of oral agreements that matters, because domestic firms already are embedded into specific social networks. As Martin (2008) states, locally embedded firms, which function within certain informal institutional standards, create a sort of "institutional milieu", which in its turn facilitates the functioning of technological clusters. When the latter get established, they further encourage the formation of locally specific institutional systems, which also impact the technological spillover among local economic agents. Stiglitz (1999) supports this view by stressing the role of institutions as "social glue", especially for transition economies. He criticizes the shock therapy, together with liberalization and decentralization in post-Soviet countries, since the methods did not encourage the development of social and organizational capital in the post-Soviet societies, which led to an absence of social norms and mentality for the transition period. Tridico (2011) has also mentioned that transition of post-communist states should not be view as a simple "economic journey" from one point to another, but it should be an institutional evolutionary process, which will encourage consistency between formal and informal institutions. There is a mutual interdependence between the formal institutions (national and regional levels) and informal institutions (local level). This means, on the one hand, that formal institutions definitely have an impact on the formation of informal social institutional environment, because social reactions to these rules and laws are being formed when rules and laws are implemented in specific local contexts from above and people are incentivized to act in accordance with those formal institutions established. On the other hand, formal institutions are already exposed to a certain informal environment and in order to make formal institutions work, they need to fit with already existing informal ones. The introduction of new formal market institutions should take into account historical past and values of the country. While using the best experience of East Asian model within post-Soviet transition states it is very important to introduce government interventions in the economy in a form of gradual process of adaptation, rather than radical transformation, because in such a case the starting conditions of a specific environment do really matter. The success story of East Asian catch-up owes also to a large extent to the fact, that the economies started their growth from scratch. Whereas in the post-Soviet states and also the MENA region countries, the catch-up process originates from already existing framework conditions, thick networks and the rules of the old system. And it is always more difficult to change the old system rather than to create the new one. In this respect, incremental building up and a long-term vision of an informal institutional framework should be a prerequisite of economic transition. Post-Soviet states together with the MENA region countries need to recover

the faith and trust towards the government and formal institutions. To do so, the government should focus on supporting and facilitating role of the economy, especially for domestic and foreign-owned firms, as Asian governments did through introduction of special financial incentive schemes for business development, simplification of permits and licenses attainment, physical and intellectual property rights protection, increasing enforceability of laws and regulation policies, regarding those as important determinants firstly, for the functioning of domestic enterprises and secondly, for the attraction of FDI aiming at increasing knowledge and technology transfer from foreign-owned firms to domestic companies.

The conceptual framework aims at identification of exactly which aspects of the East Asian model and the BeST Consensus are more easily transferable, namely are less context-specific, and which are more difficult to replicate, those that are more context-specific (Table B.2).

**Table B.2**: Possible transferability of the elements of the BeST Consensus towards the ENP countries

Elements of the BeST Consensus	Transferability / context- specificity	Reasoning
Strong role of the state: industries and technologies targeting, leading sectors upgrading, gradual phasing out of non-market interventions, pilot agencies guiding the industrialization	Not easily replicable / context-specific	Lost faith in the state; the government used to act according to the interests of specific political groups rather than common economic rationale, as a result highly industrialized industries with no potential to compete; WTO rules; competition from other emerging markets
Stable macroeconomic settings: lowering unemployment, stable inflation, stable budget deficit	More easily replicable / less context-specific	Provision of stable macroeconomic conditions is the aim of any national government and is the prerequisite of economic growth not withstanding other determinant factors
Catch-up friendly system: "easy" crediting conditions, financial incentives for upgrading and opening of new enterprises	More easily replicable / less context-specific	The lost face of the state might be recovered first of all through the state being supportive of the economic actors, to achieve this the governments should provide among other factors "friendly" financial and crediting conditions for start-ups development and upgrading in the existing enterprises
Public spending: for firms' capabilities development and broadbased education building	Not easily replicable / context-specific	The existing institutional system lacks institutional quality, which leads to the possibilities of the government use the "loopholes" of the system for their own interests, as a result public spending when occurring within the low institutional quality environments may not lead to the initial aim, therefore the development of sound legal frameworks is needed before the public spending programs

		launched
Catch-up model: government leads	Not easily replicable /	The governments shall regain the
the market	context-specific	faith in itself first in order to make
		the market accept its rule of the game

Source: Provided by author

As it can be observe from Table B.2 the model of East Asian success shall not serve as a blueprint since it is hardly possible to adopt all the elements of the BeST Consensus to the reality of other national and regional economic systems. Context specificity of the model leads to the difficulty in introduction of those elements which cannot survive in the reality of certain place-and path-dependent environments. Thus, while establishment of stable macroeconomic environment and catch-up friendly economic system is easier to replicate from to the experience of East Asian states due to the less context specificity of these elements, the provision of the strong role of the state, public spending and the new government-market catch-up model is more difficult to adopt because of the specific local environments of the ENP countries. This proves the need to analyse further the context-specific frameworks of the ENP states in order to identify what aspects of local economic environments and specifically institutional frameworks hinder successful transition process.

#### 4. Institutional transition

Transition period is always a challenging process because it involves change of something that has been already settled, a break of the system, and most importantly it always deals with transformation from an old to a new. How much of an old will still be there in the new depends on the quality of the transformation and its complexity, and the readiness of the system to accept the changes. Economic transition traces back to different spheres of social, economic and political life of any economy. Therefore, economic transition occurs together with the change of culture, social norms, habits and institutions. The roots of economic transition lie in the institutional transformation, when the new formal rules, laws and regulations have to interact with old ghosts of the past, namely informal behaviours which frame social behaviours, impact social organizations and in such a way influence the whole economic system (Tridico, 2011). Therefore, it could be possibly claimed that institutions are path-dependent in their nature and institutional frameworks are already to some extent predetermined by the echo from the past. Furthermore, as Martin (2008) points it out the impact of institutional path dependence is the most significant at regional and local levels, since institutions bring together the local economic histories. Different institutions at different places by interacting with the economic regimes of those places produce sort of a place-dependent path dependency of institutions.

Acemoglu et al. (2001) prove the persistence of institutions from the past in specific places by presenting a theory of institutional differences between countries colonized by Europeans. By using this theory the authors attempted to estimate the impact of institutions on economic

performance using mortality rates by the first European settlers were to measure it. The results of the studies proved that settler mortality rates determine settlements, settlements determine early institutions and there is a strong correlation between early institutions and institutions today. Acemoglu et al. (2001) also provide interesting evidence concerning the persistence of institutions. Extractive institutions, which were developed by the colonialists, still are present after the independence. The reasons for such persistence can be different, starting from the fact that introducing other institutions is always costly, governments decide to stay with such an "inheritance", and going along with a statement that extractive institutions always brings benefits to the elite, especially if it is a small elite, so this small elite will always protect the functioning of extractive institutions. This leads to a rationale that institutions stay within a specific geographic entity over time, bringing their inherited rules and the way they are embedded in the society.

#### 4.1 Institutions in the post-Soviet transition economies: lost faith in the state?

Transition of post-Soviet economies from a planned economy to a market economy is a perfect example of transformation of an economic paradigm. The Soviet Union collapsed quite unexpectedly, having left behind a range of centrally planned economies from old regime, which eliminated itself by its own means. As Nagy (2002, p. 5) puts it, "excessive centralization and monopolization soon created its antidote: the necessity of decentralization". As a result, huge centralized institutions started to act according to their own rules and interests, managers of big state-owned firms stopped being obedient to central orders, special interest groups strengthened, role of the market was increased, the state as such has been alienated. Such a development after the collapse of the Soviet Union goes in line with Washington Consensus, proving that in contrast to East Asian economies post-Soviet economies have chosen a "market friendly" scenario of development rather than a "government friendly". The main reasons for this could possibly be the path-dependency of institutions and an endeavour of post-socialist governments to transform economic system without transforming social systems of post-soviet societies. Concerning institutional path dependency, it is important to mention Acemoglu et al (2001), who argued that the reason for European colonizers to leave extracting institutions or existing bad institutions in prosperous places was that these were beneficial for colonizers to take an advantage of institutional loopholes and absence of some rules, and moreover bad institutions were of minor concern because of the costs related to changing them. Ukraine and Russia are good examples of such government strategies in the transition periods. There is no incentive to change the legal framework, which is comfortable for the ruling elite to take advantage for bureaucracy and corruption, because existing rules are either easy to bypass or it is much more convenient to govern when there is no institution to control the governance, leading to rentseeking and lobbying (Tridico, 2011). Another issue is that it is hardly possible to introduce a

new institutional framework, without paying attention and resources for changing the social capital and existing informal institutions embedded in the societies. When the informal institutional framework is not ready to accept the new formal rules, there is just not match in the puzzle to get the initial goals accomplished. Tridico (2011) introduces an interesting concept – the dichotomy thesis, explaining the failure of transition post-communist economies to effectively catch up through the inconsistency of formal and informal institutions. He argues that "old habits, previous behavioural patterns, old ethos and the existence of old lobbies and all the informal institutions influence the dissemination of new formal institutions and their reinforcement" (Tridico, 2011, p. 138).

Importance of fit between formal and informal institutions is also expressed through the fact there should be a cooperative equilibrium between the state and economy agents. Such institutional arrangements are possible when there are social and economic institutions developed to monitor and report for non-cooperation if any. Absence of such an equilibrium in East European states has triggered a whole range of other problems, such as traditional trade unions lost their credibility while they served obediently to the communist regimes; the newly created democratic unions were unable to make commitments; low wages attracted foreign investments, which led to the growing role of multinational companies, which using absence of a sound institutional environment just created powerful new lobbies and pressure groups. Nagy (2002) refers to the role of multinational companies in the transition period of Eastern European economies in a very interesting way. He explains that transition countries depend very much on their integration into the global economy and therefore their relations with multinational companies are very important. It led to an understanding that privatization was necessary to get rid of the inefficiencies of state ownership and central planning. On the other hand, it also triggered somehow the process of selling out the national wealth, when a public monopoly became a private monopoly of some interested groups, only because there was no proper institutional platform which could regulate FDI inflows. South Korea and China, on the other hand, were very strict with respect to selling out national wealth and opening their economies for FDIs, focusing on the endogenous growth and building of inner competencies of the state (Lee et al., 2011).

Post-Soviet countries represent also an interesting case scenario for the fact that the Soviet Union with its planned economy and major rule of the government after its collapse left the communist style institutional infrastructure for the independent states. Thickness of this institutional infrastructure was based on bureaucracy, corruption, ineffective market institutions and absence of rule of law, security of property rights in the majority of post-Soviet states. This intuitional thickness resulting in an institutional lock-in has led to the situation that rebuilding of formal institutions was just not accepted by the economy, because it was not ready to incorporate

the changes and there was no longer faith and trust in the state, which happened because the so called "nomenklatura" (the government officials in Soviet Union) were always "above the law" and could commit crimes, take bribes, do whatever they wanted as long as were on their powerful positions (Nagy, 2002). Swain (1998) in his comparative analysis of automotive industry in Hungary and coal mining industry in eastern Ukraine refers to "institutional failure" in Hungary and Ukraine, triggered by asymmetrical relations between institutions. The author indicates that in Hungary foreign investors were extremely dominant at the expense of state and local institutions which led to the exclusion of local producers from pan-European industrial networks. Inflows of foreign direct investments together with the decentralization of economy were the main feature of the economic transition of Hungary, which caused the asymmetry between the state and private business due to the formation of "cathedrals in a desert", those foreign enterprises loosely connected to the domestic industrial systems due to the institutional inefficiency. In Eastern Ukraine, he argues, local producers and allied institutions were too dominant, because there was a weak national state institutional platforms and absence of specific types of institutions. Swain (1998) names three reasons of such an institutional failure in both countries: absence or exclusion of particular types of institutions; significant asymmetry in the relative power of different types of institutions and weakness of national state, which all resulted in emergence of barriers towards institutional change; institutional asymmetry triggered by too cohesive institutional frameworks, which also hindered strategic collective action. In Eastern Europe despite liberalization of markets and privatization waves after the collapse of the Soviet Union, the role of state did not diminish, it has just transformed into conglomerates, mafia and banks, which only regarded their own interests.

Experience of post-Soviet economies proves that institutions are path-dependent and institutional environment has been somehow inherited by the independent states after the collapse of the Soviet Union. Due to no attention to the informal institutions and social capital, the changes that governments tried to incorporate within the years of independence did not have much success, because social norms and behaviours were just not ready to accept them. Lack of government support of the economy rather than government playing the role of a constraining judge resulted in the absence of equilibrium between the economy and institutional framework, which deteriorated the faith in the latter and made it impossible to impact the catch-up process.

## 4.2 Institutional transformation of the MENA region

Economic growth and development of emerging states is widely associated with the foreign direct investment flows into the latter, which trigger inflow of capital, knowledge and new technologies. One of the primary determinants of the intensive FDI inflows is supposed to be the high quality of local institutional environments of the hosting countries, which create favourable conditions for the new entrants. Vittorio and Ugo (2006) prove that the growth of FDI

flows in the MENA regions stays to be clearly lower than that of other developing and emerging markets, although lately most of the countries of the region have implemented substantial economic and institutional reforms in terms of increasing economic openness of the MENA states, macroeconomic stability and encouraging the private sector. There was Euro-Mediterranean partnership agreement signed, which resulted in liberalization of trade and automatically became an attractive factor for foreign-owned firms to enter the new markets. But all these positive transformations could not reach the expected pay-off, while there was still a strong bureaucratic machine running, the import tariffs were tremendously high, which made the MENA states nearly the most protected in the world (Vittorio and Ugo, 2006). The reasons of these negative aspects still being present in the MENA regions are diverse. Special attention deserves the fact, that in comparison to the average in the EU most MENA countries perform very poor in terms of health and primary education, as well as higher education and training (World Economic Forum and the OECD, 2011). Thus, according to the Arab World Competitiveness Report 2011-2012 in Morocco one of the main challenges for the economic growth lies in education. Low quality of institutional support of educational systems and the abundance of bureaucratic schemes lead to the very low enrolment rates. Moreover, he quality of the education system does not correspond to the business needs, which undermines the human capital of the region and leads the absorptive capacity of the local knowledge base being quite low.

Meon and Sekkat (2004) provide empirical evidence on the low quality institutions affecting negatively the integration of the MENA states into the world economy. The authors used the basic specifications of manufactured export supplies and FDI inflows' determinants, adding to them the indicators of the quality of institutions, such as the corruption perception index, the corruption index provided by the World Bank, world education indicators (WEI), government effectiveness, the rule of law and a broad index of the quality of governance. The results of the study showed that the MENA states still lack the high quality of institutions, especially government effectiveness, which in its turn deteriorates the region attractiveness for FDI inflows.

Political instability together with corruption as a derivative effect of the inefficiency of the state regulation are cited to be the major constraints of economic growth and development of the MENA region (Hisarciklilar et al., 2006). The MENA region countries are mostly characterized by high dominance of the state in the economy. Low quality of institutions together with the high dominance of the state could be linked to the discussion of the possible introduction of the elements of the East Asia success story in other transition economies. Ineffective presence of state in urge of regulation, which does not enforce, but constrain economic growth, has come to be the problem of emerging markets. The MENA region states turn out to be similar with the

post-Soviet countries in being not able to combine the best practices of both, the Washington Consensus with its liberalization of economic system and the BeST Consensus with the supportive, and at the same time restrictive, government role.

Stated above leads to the further discussion on possible ways of raising institutional quality of the MENA regions. In this respect introduction of institutional reforms aimed at maximizing the efficiency of the rule of state together with encouragement of the openness of economic systems of Middle East and Northern Africa is needed. Mina (2012) offers two approaches that MENA states can conform to: a first best approach, namely strengthening the domestic institutional functions to approach the performance of industrialized countries; and a second best approach, i.e. signing and entering into force bilateral investment treaties in tandem with improving their institutional functions.

Both of these approaches deal mainly with the reinforcement of domestic institutions and balancing between domestic and international institutional environments in order to get out on the international economic arena. Mina (2012) stresses out that institutional reforms promoted by the World Bank, the IMF or the WTO presume a number of appropriate institutional arrangements to which countries have to conform, so namely a best practice to follow. He finds that the best practice scheme does not involve interactions between institutional features, whereas the second best practice considers a cooperative component in the system of institutional arrangements, which also employs then a transfer of knowledge and experience between the involved actors. In his study Mina uses panel data for the period of 1992-2008 and analyses the first and the second best approaches to reducing the risk of investment expropriation to encourage FDI flows. Mina also assesses the performance of domestic institutional functions at the regional and country levels, comparing the domestic institutional function performance, both property rights protection (PRP) and political, to 24 OECD countries using the International Country Risk Guide (ICRG) political risk components (a higher score indicates a lower risk) (Table B.3).

**Table B.3**: Domestic institutional functions in MENA (1990-2008)

Function	Property	Property rights protection				Political					
	Investment profile	Corruption	Law & Order	Bureaucracy quality	Government stability	Ethnic tensions	Internal conflict	External conflict	Military and politics	Religion in politics	Democratic accountability
Regional level											
Max institutional score	12,0	6,0	6,0	4,0	12,0	6,0	12,0	12,0	6,0	6,0	6,0
MENA	7,23	2,77	4,0	1,79	9,2	4,56	9,11	9,96	3,03	3,51	2,64
OECD	9,09	4,77	5,57	3,78	8,25	4,97	11,1	11,04	5,77	5,62	5,73
MENA-OECD ratio	0,795	0,581	0,718	0,474	1,115	0,918	0,821	0,902	0,525	0,625	0,461
Country level											
Morocco	8,0	3,0	5,0	2,0	9,6	4,7	9,4	9,9	3,9	4,1	3,3

Algeria	6,8	2,3	2,4	1,8	8,3	3,1	5,7	10,4	1,1	1,2	3,2
Lebanon	6,6	1,5	3,6	1,5	7,7	4,4	7,8	6,3	2,7	2,6	4,1
Egypt	7,0	2,2	3,6	2,0	9,2	5,4	8,4	10,1	3,0	2,5	2,8

Source: Mina (2012)

The results prove that reducing the risk of expropriation of investment, ensuring government stability as two basic PRP institutional functions has a positive impact on FDI flows. Mina suggests that PRP can be strengthened by entering into force bilateral investment treaties with OECD countries in addition to increasing investor protection domestically. The results also prove that the influence of bilateral investment treaties is not as strong as that of domestic institutional strengthening. The adoption of a second best approach in order to increase PRP impacts positively FDI flows, but its positive influence is dependent on the success of the first best approach.

Therefore, the MENA states are currently undergoing complex institutional evolution, which should be adjusted to its internal environment. There is a definite need of finding equilibrium between the openness of economy and high dominance of the government regulation. Liberalization of trade in the MENA region was a tremendous step forward for the inclusion of the MENA economy into the global systems through becoming a strategic partner in the bilateral agreements around the world. The government in its turn through imposing of bureaucratic constraints on the economic processes in the MENA as an emerging market leads to a rejection of institutional norms and rules in pursuit for a supportive role of the state. The recent events of Arab spring with a revolutionary wave of demonstrations, protests and wide-spread societal turmoil only prove no consensus between the society and politics and lost faith in the state in the long run. Uncertainty about future social and political environment and the everlasting institutional weaknesses impact negatively the economic growth of the region (World Economic Forum and the OECD, 2011). In such a way the aspect of lost faith in the state can be traced back once again within the discussion of ineffective institutional change of transition states, which is a very important barrier for catch-up of the MENA countries nowadays.

# 5. Data on institutional quality in the selected East Asia and ENP countries

World Bank publishes annually Doing Business Report, focusing on the premise that economic activity requires good rules. Good rules and regulations have to be efficient, accessible and simple. Doing Business pays special attention towards regulations, which provide stronger protection of investor rights. It takes the perspective of domestic, primarily small companies and measures the regulations applying to them through their life cycle. Doing business 2012 covers 183 economies, namely 46 economies in Sub-Saharan Africa, 32 in Latin America and the Caribbean, 24 in East Asia and the Pacific, 24 in Eastern Europe and Central Asia, 18 in the Middle East and North Africa, 8 in South Asia and 31 OECD high-income economies. Doing

Business assessment is based on the results of the survey, which is carried out with the help of the questionnaire that uses a simple business case to ensure comparability across economies and over time. In 2012 World Bank ranked economies on the basis of ten areas of regulation: for starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency. Doing Business index is calculated as the ranking on the simple average of its percentile rankings on each of the ten topics (World Bank, 2012).

The ranking of 2006 in comparison to 2012 on the ease of doing business for East Asia (China, South Korea, Thailand and Vietnam) and ENP countries, namely North Africa economies (Morocco, Algeria, Lebanon, Egypt) and Eastern Europe states (Ukraine, Belarus, Moldova, Azerbaijan, Armenia) are compared in Table B.4. From East Asian block South Korea improved its position most dramatically in comparison to 2012 for 19 points. From North African block Egypt positively raised its ranking for 31 points. In Eastern Europe block all economies, except for Ukraine and Armenia, improved its position in comparison to 2011 year.

Table B.4: Ranking on the Ease of doing business

State	Doing Business 2006 rank	Doing Business 2012 rank	Change of the rank
		East Asia	
China	91	91	0
South Korea	27	8	19
Thailand	20	17	3
Vietnam	99	98	1
	·	North Africa	·
Morocco	102	94	8
Algeria	128	148	-20
Lebanon	95	104	-9
Egypt	141	110	31
	•	Eastern Europe	•
Ukraine	124	152	-28
Belarus	106	69	37
Moldova	83	81	2
Azerbaijan	98	66	32
Armenia	46	55	-9

Source: Own draft by author on the basis of World Bank (2012)

Having a more precise look on the ranking on the ease of doing business, namely on the ten areas of regulation, according to which the countries are ranked, the ranking of different economies could be compared towards the average for the region or group of countries, to which the respective economy belongs. Thus, South Korea, which belongs to the OECD high income group, performs worse than the average for the group only on two parameters: registering property and protecting investors. China and Thailand belong to East Asia and the Pacific region. In the case of China, it lags behind on the majority of indicators: starting a business, dealing with construction permits, getting electricity, protecting investors, paying taxes and resolving insolvency. Thailand draws a much more successful picture than China, since only in the area of paying taxes it stands behind the average index for the region. Morocco belongs to Middle East

and North Africa Region and performs worse than the region's average towards getting electricity, registration property, protecting investors and paying taxes. Ukraine, belonging to Eastern Europe and Central Asia, lags behind the region's average within all indicators, except for two: getting credit and enforcing contracts (Table B.5).

**Table B.5**: Ranking on the Ease of doing business (in comparison to the region's average)

Rank 2012	South Korea	Average for OECD high- income	China	Average for East Asia and the Pacific	Morocco	Average for Middle East and North Africa	Ukraine	Average for Eastern Europe and Central Asia
Starting a business	24	57	151	95	93	98	112	65
Dealing with construction permits	26	53	179	73	75	91	180	127
Getting electricity	11	54	115	75	107	71	169	129
Registration property	71	59	40	85	144	82	166	60
Getting credit	8	41	67	91	98	119	24	51
Protecting investors	79	63	97	83	97	95	111	68
Paying taxes	38	62	122	70	112	62	181	99
Trading across borders	4	34	60	77	43	79	140	105
Enforcing contracts	2	37	16	86	89	114	44	61
Resolving insolvency	13	27	75	106	67	99	156	81

Source: Own draft by author on the basis of World Bank (2012)

Thus, coming back to government-business relations, the supporting role of the government towards business, specifically SMEs, and facilitation of rules and regulations in the successful story of economic growth of East Asian economies, the ranking on ease of doing business also suggests that South Korea is one of the leaders in the OECD high-income regional group within getting credit, trading across borders, enforcing contracts and resolving insolvency indicators. Therefore, institutional framework in South Korea aiming at creation of a supportive business environment with the rules and regulations enforcing business activity stands out to be one of the determining factors in its economic leadership, whereas Ukraine, scoring the worst in the overall ranking among its regional counterparts, is scoring also quite low within the same indicators. Especially trading across borders and resolving insolvency rankings in Ukraine are much lower than the region's average. This means that firstly, internationalization processes for SME's are burdened with complicated and business unfriendly regulations hindering FDI inflow and technological upgrading and knowledge sharing processes. Low scoring on resolving insolvency ranking is also linked to the fact that government in Ukraine lacks business supporting initiatives in order to encourage SMEs development. In contrast, Morocco scores tremendously better within trading across borders and resolving insolvency parameters in

comparison to its regional average, which also goes in line with its getting forward in the ranking for 21 positions in 2012 compared to 2011. Therefore, lagging behind on institutional parameters proves to impact economic performance and overall economic growth.

World Bank also carries out Enterprise Surveys since 2002. The Enterprise Survey questionnaire covers such topics, as: corruption, crime, finance, firm characteristics, gender, informality, infrastructure, innovation and technology, performance, regulation and taxes, trade, workforce. In 2005 World Bank has conducted such a survey in South Korea, in 2006 in Thailand, in 2007 in Morocco and in 2008 in Ukraine. The detailed results concerning the answers on the most "institutional topics", such as corruption and regulation and taxes, are provided in Table B.6 in comparison with the region's average. From the figures it can be seen that while Morocco is scoring better than the regional average of Middle East and North Africa within corruption and regulation and taxes indicator, Ukraine is lagging behind. Therefore, corruption and regulation and taxes parameters clearly impact the whole Ease of doing business ranking, in which Morocco moves quite forward in the ranking and Ukraine keeps being low. Corruption parameter, covering mostly the issue of giving gifts with an aim to obtain a certain permit, resembles poor institutional infrastructure, both formal and informal. Regulations and taxes parameter shows how burdensome the rules set in the society are for the latter. Thus, in case of Ukraine, which scores low within all the regulations and taxes indicators towards the regional average, institutional framework turns out to be very "thick", leading to an institutional lock-in and heavy rules rejection by the business. By contrast, South Korea and Morocco score quite well within regulations and taxes. This proves once again how important it is for the government to create real market, supportive institutions and not turn the rules into obstacles to eliminate.

Table B.6: Enterprise Survey in Ukraine (2008) and Morocco (2007)

Parameter	State	Region				
	South Korea	High-income	Morocco	Middle East &	Ukraine	Eastern Europe
	(2005)	OECD countries	(2007)	North Africa	(2008)	& Central Asia
		Corruption				
Percentage of firms expected to give gifts to	14,1	12,1	13,4	37,0	31,8	24,9
public officials "to get things done"						
Percentage of firms expected to give gifts in meetings with tax officials	21,3	19,3	10,7	23,4	28,3	14,2
Percentage of firms expected to give gifts to secure government contract	25,8	17,3	6,4	37,9	38,5	18,0
Value of gift expected to secure a government contract (% of contract value)	0,2	1,1	0,3	3,6	3,7	1,5
Percentage of firms expected to give gifts to get an operating license	-	0,9	0	16,5	37,3	14,3
Percentage of firms expected to give gifts to get an import license	-	1,4	20,0	22,9	2,6	16,7
Percentage of firms expected to give gifts to get a construction permit	-	9,2	15,3	25,1	59,1	25,3
Bribery depth (% of public transactions where a gift or informal payment was requested)	-	3,1	8,4	20,4	30,9	14,9
Percentage of firms experiencing at least one bribe payment request	-	4,6	-	53,1	38,5	19,1
Percentage of firms identifying corruption as a major constraint	8,5	13,9	27,3	56,5	50,2	34,5
Percentage of firms identifying the courts system as a major constraint	-	17,7	36,1	28,2	39,2	20,6
<u> </u>		Regulations and	axes			
Senior management time spent dealing with the requirements of government regulation (%)	0,1	4,2	11,4	10,8	11,3	10,6
Number of visits or required meetings with tax officials	2,2	1,4	0,9	2,5	2,1	1,7
If there were visits, average number of visits or required meetings with tax officials	2,2	1,8	4,7	3,9	3,8	2,8
Days to obtain an operating license	-	29,2	3,4	41,0	31,0	25,7
Days to obtain a construction-related permit	-	62,8	61,0	94,6	135,4	81,2
Days to obtain an import license	-	27,4	-	29,8	16,4	15,0
Percentage of firms identifying tax rates as a major constraint	15,1	29,3	55,7	47,1	55,1	39,5
Percentage of firms identifying tax administration as a major constraint	9,1	19,7	17	34,4	35,3	20,6
Percentage of firms identifying business licensing and permits as a major constraint	7,5	10,8	9,3	29,4	32,7	16,1

Source: Own draft by author on the basis of World Bank (2013a)

Another ranking is proposed by World Economic Forum, which since 2005 has based its competitiveness analysis on the Global Competitiveness Index (GCI), a comprehensive instrument for measurement of the micro- and macroeconomic foundations of national competitiveness. And competitiveness is defined by World Economic Forum as "the set of institutions, policies, and factors that determine the level of productivity of a country" (World Economic Forum, 2011, p. 4). GCI consists of 12 pillars. The first pillar is Institutions. The institutional environment is determined by the legal and administrative framework, which involves all the agents interacting together to generate wealth. World Economic Forum (2011) suggests that the quality of institutions has a strong influence on competitiveness and growth, but the role of institutions go beyond the legal framework. What is also very important is the government attitudes towards the markets in terms of bureaucracy, corruption, dishonesty in terms of public contracts, transparency. The World Competitiveness Report 2012 also highlights the importance of private institutions, since private-sector transparency is indispensable to businesses in order to ensure transparency in accounting and management practices. World Economic Forum also divides countries into factor-driven, efficiency-driven and innovationdriven economies. Thus, Ukraine belongs to the transition stage from factor-driven economies to efficiency-driven economies. Morocco, China and Thailand belong to efficiency-driven economies. South Korea belongs to the innovation-driven economies. In order to transfer from one stage to another, certain requirements must be fulfilled. For example, in order to transfer from factor-driven to efficiency-driven economies, basic requirements have to be met, and institutions belong to these requirements, which also underpin the theory of Lee and Kim (2009), that institutions do matter for "lower" income countries. Overall, GCI covers 142 economies in 2012. A closer look on the GCI 2012 ranking of the target groups of countries is presented in Table B.7.

Table B.7: GCI 2011-2012

State	Basic requirements rank 2012	Institutions rank 2012	GCI 2011-2012 rank	GCI 2010-2011 rank	Change of the rank			
	1	Eas	t Asia	1	•			
China	30	48	26	27	1			
South Korea	19	65	24	22	-2			
Thailand	46	67	39	38	-1			
Vietnam	76	87	65	59	-6			
North Africa								
Morocco	54	59	73	75	2			
Algeria	75	127	87	86	-1			
Lebanon	109	115	89	92	3			
Egypt	99	74	94	81	-13			
	•	Eastern	n Europe	•				
Ukraine	98	131	82	89	7			
Belarus	-	-	-	-	-			
Moldova	102	106	93	94	1			
Azerbaijan	59	68	55	57	2			
Armenia	94	83	92	98	6			

Source: Own draft by author on the basis of World Economic Forum (2011)

As it could be concluded from Table B.7, in contrast to World Bank Doing Business ranking, China, Lebanon and Ukraine improved their GCI ranking in 2011-2012 compared to 2010-2011. And South Korea has fallen two steps behind, although its basic requirements rank 2012 is much higher than of other East Asia countries. In terms of the ranking of institutions, in the East Asia, China is the leader with the highest rank in institutions out of the sample group and the highest GCI ranking after South Korea in the group. In the North Africa region, Morocco leads the institutions rank and overall GCI rank. In the Eastern Europe group Ukraine scores the worst for institutions, although its overall ranking is better than that of other countries of the Eastern European region sample group. China and Morocco prove that when the institutional framework works well, then the overall performance of the country improves. But the case of Ukraine puts some contradiction within this assumption, since bad institutional score did not hinder Ukraine's overall move forward in GCI ranking. Considering the nature of the World Economic Forum GCI ranking, namely expert assessment, the specificity of Ukraine's case as a post-Soviet country in terms of bad institutional scoring but progressive overall competitiveness scoring is that in post-Soviet countries institutions have been inherited as those they used to be in the Soviet Union. Bad institutions are path-dependent, which goes in line with the Acemoglu (2001) assumption of the fact that when bad institutions are inherited, they are rarely changed because they are already embedded in the society. Therefore, post-Soviet countries somehow already learned to live with what they've got. Competitiveness is seen as something reached not with the help of institutions, but rather in spite of them. And again lost faith in the state in Eastern transition economies becomes an important factor, which seems to grow due to bad institutions.

Overall, it can be observed that there are some contradictions between the rankings described above. One reason to this may be that while World Bank primarily focuses on SMEs in building its Ease of doing business ranking, whereas World Economic Forum focuses on expert opinions when developing GCI ranking. Institutions might be treated tremendously different by SMEs and expert assessments. SMEs evaluate institutions from the perspective of the latter being supporting bodies for small and medium size businesses, ease of opening and registering an entity, of obtaining licenses and permits, whereas experts focus more on the overall institutional framework of the country. Thus, Ukraine with its contradicting ranking by World Bank and World Economic Forum is a very good example of such contradictions to take place. In Ukraine SMEs due to not receiving a diligent support from institutions, score the institutional indicator very low and the overall ease of doing business ranking falls dramatically. Experts on the other hand, evaluate the overall institutional framework, more precisely the aspect of its availability and not effectiveness. Therefore, it may be concluded as already stated above that the role of SMEs in institutional development is important, because SMEs are the indicators of the effectiveness of institutional environment.

## 6. Summary

Many scholars agree that the role institutions play for the economic performance and growth of states is remarkably important. Apart from a range of other factors, especially geographic and macroeconomic determinants, institutions prove to have a clear impact on the latter. This means that institutions may be not the only factor of geographically uneven development, but they do act as constraints of economic growth in territories specific ways (Martin, 2008). New institutional theory links economic growth to the quality of institutions, focusing on the immaterial aspects of institutions, namely social capital, trust and values of the society. Other scientists find the connection between economic progress and governance capabilities of the state, which are expressed through the quality of formal institutional environments and regulation bodies. Therefore, institutions appear to be the first players in the scene, setting the rules of the game.

In this dissertation institutions are interpreted as a set of formal and informal institutions. Behind formal institutions rules, laws and regulations, the legal sphere with its specific bodies and organizations, which form the constitutional legislative framework of the economy, are meant. Informal institutions are expressed through a set of social norms and values, beliefs and attitudes, traditions and behavioural pursuits in achieving human's needs and reacting to the formal institutional environments. Analysing the catch-up process of East Asian countries and comparing their economic progress with the one of such transition economies as the post-Soviet states and the MENA region countries by building up a critical discussion around Washington Consensus versus the BeST Consensus, it could possibly be confirmed that there is a number of reasons why

ENP countries are lagging behind and the high performing Asian countries are outstripping competitors in terms of economic growth. Firstly, post-Soviet states and the MENA region countries did not manage to effectively change the institutions of the old regime for the new efficient ones. Secondly, even the minor institutional changes incorporated failed to work out as planned due to the lost faith in the state and absence of fit with the existing informal institutional environment. In this respect the path-dependency of institutions is addressed with an affirmation of the fact that institutional transformation is endogenous in its sense. Furthermore, the research shows that institutions are also place-dependent, meaning that institutional regimes are formed within specific regional contexts and the more institutions are embedded in those regional contexts, the less flexible they are to accept the changes. And thirdly, in contrast to East Asian states, other transition economies failed to build up government-business relationships in the form of efficient control of the business by the government, since while in South Korea, China and Taiwan government has always played the dominant restricting role leading the business and economic development, in post-Soviet and the MENA region states the government could not get rid of inefficient dominance of the past and take the lead in the present.

By and large, this chapter gives an overview of conceptual paradigms of old and new institutional economics applied to the specific contexts of East Asian catch-up and the ENP countries in transition. The conceptual framework formulated deals with the question whether the success story of East Asian countries could be possibly used within the reality of post-socialist states. The East Asian miracle should not be treated homogenously, since the model of each Asian emerging national economy has its context-specific elements. The most evident turns out to be that while the governments of South Korea, China and Taiwan played more a restrictive role, the governments of Thailand and Vietnam, for example, were more liberalized towards the economy, which could be one of the explanations why the latter still lag behind the highly successful East Asian states. Therefore, the model of East Asian success shall not serve as a blueprint since it is hardly possible to adopt all the elements of the BeST Consensus to the reality of other national and regional economic systems. Context specificity of the model leads to the difficulty in introduction of those elements which cannot survive in the reality of certain place- and pathdependent environments. Thus, while establishment of stable macroeconomic environment and catch-up friendly economic system is easier to trasnfer from to the experience of East Asian states due to the less context specificity of these elements, the provision of the strong role of the state, public spending and the new government-market catch-up model is more difficult to adopt because of the specific local environments of the ENP countries. What is important is to identify what prerequisites are needed to make this replication effective rather than just "one size fits all" approach. First of all, the BeST model is transferable to other economies only if it is adapted to the local specificity context. Thus, the historical past and the path-dependency of institutions in transition economies should be taken into account. What is definitely needed for the acceptance of BeST Consensus by transition economies is building up of informal institutions, ensuring the recurrence of faith and trust towards government and its interventions in the economy, and at the same time ensuring that the formal institutional framework with all its rules and regulations aims at supporting the economy, business and the market rather than constraining it. One of the ways to achieve this is to start with reformation of the legal system aimed at facilitating the business related procedures, eradication of bureaucracy, securing of financial support for knowledge and technology transfer and provision of high quality education, ensuring close links between business and education institutions. It is also important to build up a cooperative equilibrium between the state and economy agents, encouraging in such a way close ties between the government and business. These ties are essential for the government to set supporting rules of the games for the economy, so that the state is aware of what is really needed by the business.

# CHAPTER C. THE ROLE OF LOCAL INSTITUTIONAL ENVIRONMENT FOR THE DEVELOPMENT OF MULTINATIONALS AND SMEs IN UKRAINE: A TRANSITION ECONOMY PERSPECTIVE

This chapter aims at the analysis of the interrelatedness between formal and informal institutions as a prerequisite of the quality of local institutional environment, which impacts the development of multinational enterprises (MNEs), as well as small and medium size enterprises (SMEs) within a certain economic system. The role of MNEs, their subsidiaries in the host markets and cooperation of the latter with the domestic SMEs, are investigated with regard to the embeddedness of firms within the local institutional system based on the paradigm of a multiscalar approach in a transition economy. This chapter empirically analyses the primary data of the enterprise survey, carried out in Ukraine as one of European Neighborhood Policy (ENP) states. The focus of empirical analysis is centred on the assessment of institutional quality and its region-specific characteristics by firms, the determination of the differences in local institutional quality perceptions by MNEs and domestic SMEs and identification of the prerequisites of such disparities.

# 1. Introduction

Institutions represent an important component of any economic system. Formal and informal institutions are equally important for the collaboration between business actors of the latter. While formal institutions impose rules, laws and legislation, informal institutions provide a set of shared understandings, beliefs and behaviours, which unite all the elements of the system under common knowledge (Hall and Soskice, 2001). In such a way local institutional environment is equally supported by both formal and informal institutions, which have to be coherent in order to foster economic development. In transition economies with prevailing context-specific economic past, the fit between formal and informal institutions is of a tremendous importance. When rules and laws imposed by the higher official regime are not adjusted to the existing pre-established code of conduct in the society at transition, formal constitutions may not work within the current informal environment (Tridico, 2011).

This chapter will introduce the discussion concerning the definition of institutions and the interrelatedness between formal and informal institutions as an important prerequisite of overall institutional quality within different capitalism formations, namely cooperative capitalism, collective capitalism, competitive capitalism and proprietary capitalism. Different capitalism systems perform differently, because institutional endowments have diverse functional characteristics. Thus, in cooperative and collective capitalisms, the business processes are coordinated by non-market institutions and shared individual agreements, whereas in competitive

and proprietary capitalisms these are institutions, which rule the game. Empirical evidence on the enterprise survey, carried out in 458 manufacturing firms in Ukraine, will be provided. Ukraine could be also ascribed to cooperative and collective capitalism groups, because local business culture with its socially shared ethics largely affects institutions, which is the similar story for all transition states (Tridico, 2011).

The enterprise survey in Ukraine aimed at empirical investigation of the quality of local institutional environment within the following research questions:

- 1. Are there regional differences in the quality of institutions in Ukraine?
- 2. How do subsidiaries of MNEs and domestic SMEs assess the quality of institutions deployed in the country?
- 3. What determines the differences in the assessment of institutional quality by MNEs and domestic SMEs?

By answering the above research questions, this chapter aims at firstly, analysis of the region-specific institutional quality and the determinants impacting the latter; secondly, investigation of the relationship between formal and informal institutions as an important pre-requirement of regional economic development in transition economies; and thirdly, analysis of the role local institutional environment plays in the embeddedness of the subsidiaries of MNEs in the host market and domestic SMEs within the regional economic system.

This chapter is organized as follows: section 2 covers institutional embeddedness of firms, introducing a discussion on the interrelatedness of formal and informal institutions, multiscalar institutional co-dependence and importance of institutions for the subsidiaries of MNEs in the host location and domestic SMEs; section 3 introduces the analytical framework of this chapter with three main hypotheses of the empirical research; section 4 covers data and methods; section 5 provides the results of empirical analysis of the enterprise survey in Ukraine; section 6 follows with the discussion on the results; and Part VII summarizes the paper introducing policy implication.

# 2. Institutional embeddedness of firms

# 2.1 Formal and informal institutions within local institutional environment

The notion of institutions has become a widely acknowledged topic of scientific debates on institutional change and role of institutions for the development and growth of national and regional economic systems. However, there is still no one widely accepted definition of institutions. Thus, North (1991, p. 97) states that "institutions are humanly devised constraints that structure political, economic and social interaction". The author introduces formal institutions, such as political and economic rules and contracts, and informal institutions, such as codes of conduct, conventions, attitudes, values and norms of behaviour. Formal institutions are

subordinate to informal institutions in a sense that they are the deliberate means used to structure the interactions of a society in line with the norms and values that make up its informal institutional environment. According to this way of thinking a formal component of institutions (rules and laws) is formed under the influence of an informal component (traditions, social norms and behaviours, culture and attitudes). North's definition implies that policy making, which attempts to change the formal institutions of a society without measures to adjust informal institutions in compatible ways, will have marginal success. For example, difficulties arise when a governing body can influence the evolution of society's formal institutions in a direct way, yet the less tangible informal institutions remain unaltered outside the direct influence of public policy. While informal institutions can be shaped, they are likely to resist change and take time to evolve towards new social norms. According to Williamson (2000) in his social analysis of economics of institutions the level of informal institutions and customs, traditions, norms and religion develop within centuries or even millenniums in a spontaneous way, whereas formal institutions and governance need on average 10 years to get established in the society. Thus, 'radically different' performance of economies can exist over long periods of time as a result of the embedded character of informal institutions, because originally these are the humans that impose certain constraints that in their turn frame economic interactions (North, 1990).

Hodgson (2006) introduces institutions through the realm of social rules that constrain societal interactions. Institutions are believed to be embedded in social interactions, because on the one hand, they constrain them and on the other hand, they enable them. The constraining function originates from the perspective of formal institutions, those rules, laws and regulations that impose certain frameworks and limits on social and economic interactions. The enabling function is derived from the fact that institutions as such depend on the thoughts and activities of individuals in a society. This means that originally institutions can only work efficiently when they are embedded in the society adjusted to inexplicit, cultural environment.

The interrelatedness between formal and informal institutions not only proves the importance of social and cultural platform for the effective introduction of formal governance, but also leads to the notion of local business culture as an important part of local institutional environment. Before defining local business culture, a referral to DiMaggio and Powell (1983) and their formulation of culture should be introduced. The authors state that culture is a set of shared understandings and experiences, gathered within some common action. Local business culture is expressed through social code of conduct, behaviours and routines, which define social acceptance of certain formal and informal institutional rules and business practices and are widely acknowledged by the individuals residing within certain localities. For the formation of local business culture the following conditions must be met: availability of a group of individuals,

which make the part of the business entity within certain local dimension; introduction of characteristic common behaviours by these individuals; and integration of these behaviours towards business practices forming in such a way business routines. Thus, Hodgson (1998) through defining institutions as established and accepted norms of a group behaviour, firstly, already involves a number of certain actors making up a group (possibly firms within one institutional and cultural environment) and secondly, the authors associate these behavioural norms with "socially transmitted information", which is a part of local business culture. Proximity plays a defining role in the formation of local business culture within certain informal institutional environment. Institutionalist geographers view geographical proximity as the prerequisite of development of such important elements of local business culture as local rationalities and traditions of behaviour, tacit knowledge and face-to-face exchange, social habits, norms and routines, and the sociology of communication and interaction in local economic networks (Amin, 1999). The author also proves that an economy is not solemnly a collection of firms, but rather a "composition of networks and collective influences which shape individual action; a highly diversified set of activities owing to the salient influence of culture and context; and subject to path-dependent change due to the contribution of inherited socio-institutional influences" (Amin, 1999, p. 4).

The link between formal and informal institutions is also determined by the fact, that formal rules, or constraints of the institutional structures, form certain frameworks of opportunities for the business agents, who select between the code conduct, which is either permitted or prohibited. These incentives or stimuli, which establish a certain structure of the society, also facilitate to a certain extent the framework of predictable and non-predictable behaviour, or, in other words, an overall framework of the stability or instability of the environment, which in its turn is the prerequisite of the formation of a specific local business culture of every locality.

Another way to investigate the interrelatedness between formal and informal institutions is through the paradigm of business ethics and divergent capitalisms approach (Figure C.1). Stajkovich and Luthans (1997) offer a model describing the basic elements of business ethics based on the social cognitive theory. The model explains that business ethics formation depends on the triadic interaction among the specific institutional environment, personal factors of individuals and organization behaviour, all within a particular context of national culture. The notion of national culture could be integrated within the framework of different types of capitalism structures or political economies, which impact institutional differences in different countries (Whitley, 2000; Hall and Soskice, 2001).

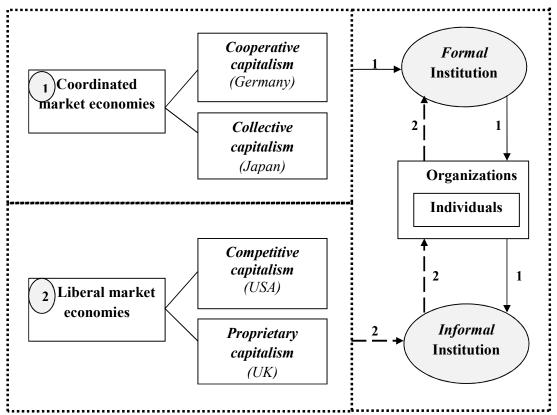


Figure C.1: Factors affecting the formation of local business culture

Source: Own draft by author

In Figure C.1 the interconnection between varieties of capitalism, influencing formal and informal institutions, organizations and individuals could be observed. According to Hall and Soskice (2001) there are two types of economies: liberal market economies (the USA, the UK, Australia, Canada, New Zealand, and Ireland) and coordinated market economies (Germany, Japan, Switzerland, the Netherlands, Belgium, Sweden, Norway, Denmark, Finland, and Austria). Cooperative capitalism of Germany and collective capitalism of Japan belongs to coordinated market economies, whereas competitive capitalism of the USA together with proprietary capitalism of the UK are the ones fitting into liberal market economies. The main difference between the capitalism formations of coordinated and liberal economies is that in cooperative and collective capitalisms of coordinated economies firms depend more on the non-market relationships while constructing their core competencies, and in competitive and proprietary capitalisms of liberal market economies firms regulate business processes through hierarchies and market arrangements (Whitley, 2000; Hall and Soskice, 2001). Thus, the arrow numbered 1 coming from coordinated market economies shows that in competitive and proprietary capitalisms these are formal institutions that impact organizations, which then form certain informal behaviours in order to correspond to the formal legislations. This is the "top-down" model of interrelatedness between formal and informal institutions. The arrow numbered 2 goes from liberal market economies in the direction to informal institutions and shows that these are informal regulations in cooperative and collective capitalisms that influence organizations and individuals and therefore impact the formal rule of law, which in its turn adjusts to the preestablished code of conduct in the society. This is the "bottom-up" model of interrelatedness between formal and informal institutions. Thus, in Ukraine, a transition economy at the state of catching up, pre-established informal institutions and therefore local business culture impact significantly the efficiency of formal institutions. This assigns Ukraine to the "bottom-up" model of interrelatedness between formal and informal institutions. Transition of economic systems of the majority of emerging states requires an availability of fit between new formal rules and old informal codes of conduct (Martin, 2008; Tridico, 2011). Ensuring of such a fit between formal and informal institutions proves, that in cooperative and collective capitalisms firms operate in such an institutional environment, where the overall institutional quality depends on both its formal and informal component.

# 2.2 Multiscalar institutional co-dependence

In this part of this chapter three scales of institutions will be introduced, namely supranational, national and sub-national scales together with foreign and domestic SMEs embedded in institutional environments at these scales. Introduction of the multiscalar approach towards the analysis of the quality of institutional environment impacting business activities of firms aims at getting a more profound insight into the links between various levels of institutions and institutional governance and the local business culture rooted within the very core of the socioeconomic system. Based on Bunnell and Coe (2001) the scales are viewed as relatively socially formed, which makes them connected to each other through a series of simultaneous actions at each of the scale. Keeping in mind that each of the above scales has different local institutional regimes, the focus will mainly lie within the sub-national scale of institutions, namely level of regions and localities. This is where the institutions become especially place-dependent and the interrelatedness with the local business culture is also the most significant. Nevertheless, supranational and national levels of institutions are also situated within the complex interactions of different institutional scales and therefore, play their important roles in the formation of interrelatedness between each of the scales (Figure C.2).

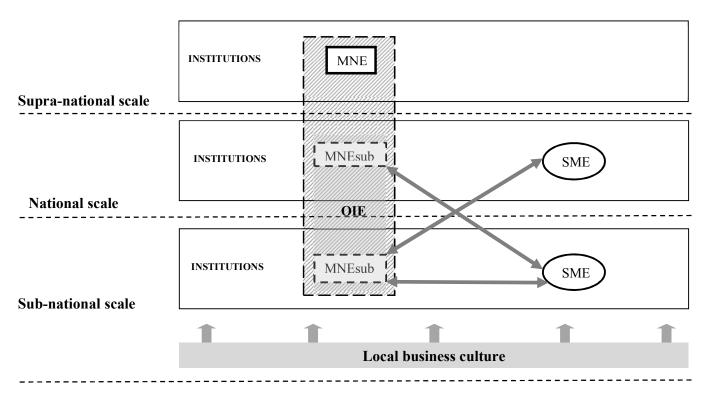


Figure C.2: Co-dependence between institutions and firms, a multiscalar approach

Source: Own draft by author

Note: MNE – mother company; MNEsub – subsidiary of a MNE in the host market; SME – domestic SME; OIE – own institutional environment created by the subsidiaries of MNEs in the host country.

Figure C.2 presents three scales of institutions and three economic actors: MNEs together with their subsidiaries in a host market and domestic SMEs. Sub-national scale of institutions is the lowest level, because this is the level of regions and localities. At this local level local business culture as a part of informal institutional environment is formed. Thus, as stated earlier in cooperative and collective capitalisms with transitional stage of economic development the "bottom-up" model is present, when informal institutions influence firms and require therefore formal institutions to adjust to the pre-established social routines in the society.

Supra-national institutions are situated at the highest scale, because global institutions are not that much closely linked to the local business activities of a separate state. When talking about supra-national institution mainly global institutional units within the triad of the following world regions, i.e. North America, Western Europe, and East Asia are meant. Supra-national institutions are concerned with internationally accepted rules of competition, trade and monetary regulations (Martin, 2008). Global institutions serve as the so-called linkages within the regionalization structure of the contemporary world, involving national states as the members of the global decision-making platforms. In such a way global institutions set the rules, constitutions and regulations and transmit them to the national member states for further execution. Any state being

a member of a global supranational unit strives to adjust its national institutional framework then to the global, international "code of conduct". Thus, global institutions become important carriers of rules and standards by MNEs, which when entering international markets automatically transmit those "rules of the game" to the host country through its subsidiary. When a multinational company enters foreign market, it already faces multiple embeddedness (Meyer et al., 2011). Multiple embeddedness is an embeddedness of a multinational firm at the level of the home country and at the level of the host economy within a specific local context of the latter as shown by a shattered quadrant joining a mother company and its subsidiaries in Figure C.2. At the home country level, the multinational company is affected by the global or even supra-national level institutions. This is where firms build their original resource endowments, which enforces their internationalization. These endowments are transferred together with a subsidiary towards the host country, introducing specific constraints on the business activities taking place at the subnational level (Meyer et al., 2011).

At the level of the host economy, on the other hand, the subsidiary of a MNE is also subject to the institutional framework of the latter through the influence of formal and informal institutions at the national and sub-national levels. This is when the second case scenario may emerge and MNEs start to create their own institutional environment around them as shown by a grey quadrant joining subsidiaries from the national and sub-national levels in Figure C.2. This can be partly explained by what Oliver (1992) calls deinstitutionalization, when the established and common to the MNEs institutionalized organizational practice disentangles, because organizations fail to reproduce practices they are originally used to within new locations aiming at fast and efficient adjustment to the local rules. In emerging economies formal institutions are very dominant in ruling economic processes and therefore the burden of governance on the MNEs can also be in place. MNEs, nevertheless, not only correspond to the existing institutional environment, but also contribute to the emergence of a new one (Chung and Beamish, 2005). Moreover, the government institutions of transition economies are interested to feed the demand for foreign capital inflows and as a result introduce preferential treatment and attractive institutional frameworks to the new comers, which affects how MNEs embed into the local host environments. As Farrell et al. (2004) put it, MNEs are attracted easily by tax holidays, import duty exemptions, subsidized land and power, offered by host governments as an incentive to enlarge the foreign capital stock in the countries. The finding of Meyer et al. (2009) that green field investors choose certain locations primarily by the flexibility of the host institutional environment also supports the above discussion on MNEs tending to develop their own institutional environment as an adjustment strategy to the regional economic system. Those FDIs starting in a new economy from scratch assess the quality of local institutional environment from

the perspective of the possibility to create certain local microsystem backing up the investor in its further embeddedness into the regional economic system. Creation of an own institutional environment on the basis of the government preferential treatment at first hand is one of the ways to adjust easier to the existing hosting environment.

Cooperation between multinationals' subsidiaries and domestic SMEs as expressed through the grey arrows in Figure C.2 plays also a very important role for the embeddedness of firms into the local institutional environment and therefore should be controlled for when assessing the perceptions of both types of firms towards the quality of local institutional environment. As Jindra et al. (2009) state, foreign subsidiaries in transition economies tend to embed into the regional economic systems through the intensified linkages with domestic SMEs, which are backed up by the extensive autonomy of MNEs in the host location. Such an autonomy provides the subsidiary with enough space to create their own supplier-customer networks for business operations, that result in a form of certain own institutional environment framing these networks in the long run.

National level institutions play a prominent role in the emerging economies when speaking about FDIs and economic growth within the institutional environment of the host economy. Under national level institutions national financial system, national labour and property rights laws, tariffs and taxes regulations are meant. Institutional differences at the national level between different states serve as a reason for the difference in economic organization, development and growth scenarios of these states (Martin, 2008). Being embedded in different institutional frameworks, economic systems all over the world differ dramatically. National scale becomes also an important unit of economic activity not only because at this level institutions trigger economic differences, but also because the overall tendency nowadays is that economic processes not only concentrate upwards to the global scale, but also downwards to the national and sub-national levels (Bunnell and Coe, 2001).

Sub-national scale is the level of regions and localities. This is where local government structures, local employees' associations and local region specific regulations concerning land use and resources planning are introduced. Regions and localities at this scale are viewed as arenas supported by institutional environments. Local institutions are "the rules, conventions and regulations that define the territory (a region or locality) and its usage, which in turn depend on sometimes conflicting values and modes of thought" (Rafiqui, 2009, p. 345). In this respect when institutions are there for constituting the environment of regions and localities, there is a need to take into account the fact that institutions may be transformed by individuals according to their level of acceptance of the latter. At this level the most interconnection between the local business culture and regional economic system can be observed. Such an interconnection takes place

through the high levels of embeddedness of sub-national institutions into the regional business culture framework, and through the path- and place-dependency of regional or local institutions.

Integration of institutions at the sub-national scale into the system of local pre-established and socially accepted informal rules of the game is very important for the further embeddedness of domestic and especially foreign firms within the regional economic system. This is explained with the help of sociological institutionalism, which underlines that institutions should be viewed as "culturally specific social networks of trust, reflexive cooperation, and obligation which underpin economic behaviour and relationships" (Martin, 2008, p. 83). Therefore, the role of region specific informal networks of trust, knowledge transfer and collaboration is very important in fostering the embeddedness of local firms. Granovetter (1985) also stated that economic institutions are framed through the paradigm of allocation of economic resources through social networks. He discovered that the efficiency of local specific institutions depends on the interactions within social networks of this locality. Thus, for example, an acceptance of rules and regulations imposed by regional institutions concerning getting access to buildings, land, materials and resources of a specific region highly depends on the extent to which use of personal contacts, for instance, is popular in solving the above concerns. Williamson (2000) in his model of economics of institutions has also proved that the top level of informal institutions is the social embeddedness level of customs, codes of conduct and socially accepted norms, which introduce given informal constraints towards the next level of formal institutions.

According to Martin (2008) institutional path-dependence is most significantly expressed at the regional or local level. This is where the culture, traditions, social rules and norms, behaviours and religion are situated. Local business culture with its pre-existed social norms and accepted behavioural routines is also constrained by the shadow of the past. At the same time being the bottom line in Figure C.2 and directly impacting the interrelatedness of regional institutions referred to above local business culture determines the dependence of sub-national scale institutions on the patterns and routines of the past. Rafiqui (2009) also refers to the pathdependency of local specific institutions and their adaptation towards pre-established local business culture. The author distinguishes between institutions-as-rules and institutions-asequilibra. Under institutions-as-rules, the way how institutions influence perception (an important element of a local business culture) is meant and under institutions-as-equilibra, the way how existing patterns of behaviour influence perception is understood. Institutions-as-rules theorists use institutional path-dependence to explain the evolutionary nature of institutional change. Thus, Rafiqui (2009) stresses, that for institutional change to happen at a regional scale, a complicated process of change of beliefs and norms on the bottom level of the local culture has to take place beforehand. Path-dependence in such a way originates on the one hand, from firms that resist any kind of change, because they are already embedded into certain cultural environment and their business practices are adjusted to the latter; and on the other hand, from the role perception plays in creating these institutions. It is the connection between perceptions and beliefs, institutions and firms that make path-dependence such an important element for describing the link between local business culture and sub-national institutions.

Path-dependence of region specific institutions, closely related to the local business culture of this region can have both positive and negative effects. The positive role of path-dependence is expressed through the obvious need of formal institutions to co-evolve together with informal institutions and local business culture to be efficient and for the necessary evolutionary change to occur. The negative output of sub-national institutions depending on the pre-established local business culture is the possibility of institutional lock-in to take place (Rafiqui, 2009). Being dependant on the social rules and norms, local institutions may resist change for further economic development. For example, when local business culture is based on oral agreements and use of personal contacts, local institutions will be unwilling to introduce contract enforcement, although it is important for the overall enforceability of legislation and regulation policies.

Another important dimension of region specific institutions is institutional placedependency. As Martin (2008) puts it, institutions as such may be not the only reason for the geographically uneven development, but they enable, constrain and frame economic activities in spatially different manners. Local institutions become more and more important in shaping the local and regional economic performance. Thus, localization of a certain industry within a regional economic system fosters development of specialized local institutional environments, which reduce transaction costs and increase local economic competitiveness. Economic geographers also identify place-dependency of institutions at sub-national level referring to "local institutional thickness". Martin (2008) defines it with the help of four elements: strong presence of institutions such as local authorities, chambers, labour unions, research centres; high level of interaction between these institutions; availability of well-defined structures aimed at minimization of inter-institutional conflict; and collective integration into regional socioeconomic development. Under circumstances of such "local institutional thickness" at the regional level there is a high probability of formation of a specific institutional regime, which will clearly reflect on the local business culture. This facilitates the emergence and development of clusters of firms, because firms are prone to function in the institutional environment, which is already adjusted to the pre-existing business culture. It enables closer collaboration between firms, better knowledge transfer, which fosters higher spillover effects among local firms (Martin, 2008). This is especially relevant for Ukraine as a transition economy with post-Soviet past. The prerequisites of a planned economy, which was the case for the communist times in the Soviet Union, were based

on the uneven regional division of states according to economically efficient and inefficient regions of the latter. Thus, those regions considered to be efficient in terms of economic output in hard industry, which was the main driver of the Soviet economy, were supposed to be strategic localities for development of regional economic systems. The government directed financial support towards the development of a technological base at these specific strategic locations, which would work according to the Soviet plan. This lead to the emergence of industrial zones in Ukraine, like the Eastern part of the country close to other Soviet Union member states, which historically were treated by the government as strategic sources of economic wealth. As a result the existing institutional environment at these industrial zones may differ from the institutional environment in other, "less strategic", parts of the state. Thus, the Western region of Ukraine located geographically in the agricultural zone of the country has always been an important agricultural zone. Considering that the main focus of the Soviet Union was on the hard industry, the Western region received much less support, which also resulted in a lesser impact of the communist legacy on the institutional environment at this location.

The same situation concerns the difference in institutional endowments between the capital region and the rest of the state in case of emerging markets. Capital regions in transition economies usually have better infrastructure, serving as commercial hubs (Heidenreich, 2003). The state being interested to support such an urban agglomeration contributes to the development of a higher quality of institutional environment (Fedorov, 2002). The disproportionality of the regional developments of the transition economies towards higher developed capital regions and lower developed peripheries is also the outcome of preferential government treatment, availability of financial support, foreign capital and better opportunities due to a more developed market in the capital hub (Heidenreich, 2003). Such opportunities in their turn also attract a better pool of qualified human capital, which serves as an important driver of economic progress due to knowledge transfer by highly skilled employees. Santos et al. (2012) state, that there is a positive relationship between the economic development of a region and availability of highly skilled motivated entrepreneurs in this region. Capital region being a high-income region tends to attract more qualified workers, which create new working places that attract more and more knowledge and human resources over time. Therefore, place dependency of institutions within different regional economic systems is an important factor to be taken into account when analysing the quality of local institutional environments and their impact on SMEs development.

# 2.3 Importance of institutions for SMEs development

Any newly created firm or a start-up enters in a sense already pre-established institutional environment, with all the rules, laws and constitutions which are for a long time there in the market. Therefore, in order to survive firms have to adjust to the existing institutional frameworks

possibly by the means of creating their own institutional endowments that would fit to the overall local institutional environment. Institutions are the rules of the game in a society that function as constraints and opportunities shaping human interactions, cooperation of firms and organizations. Applied to the field of entrepreneurship, institutions represent a set of rules that articulate and organize economic, social and political interactions between individuals and social groups, which impacts business activity and economic development (Thornton et al, 2011). Malmberg and Maskell (2006) view institutional setup as one of the most prominent factors that matter, when firms choose where to build up their competitive advantages with regard to special activities they perform. They argue that particular sets of national, regional, or local institutions gradually develop over time in response to the fact that firms settle down in a specific environment and once a dominating institutional pattern has been created, it will attract those firms and individuals most compatible with it.

Asheim and Gertler (2005) stress out the importance of institutional environment for firms by the necessity of the latter to innovate. Innovation in such a case must be based on the following activities: interactions and knowledge flows between economic entities such as firms (customers, suppliers, competitors), research organizations (universities, other public and private research institutions), and public agencies (technology transfer centres, development agencies). The authors argue, that the transmission of tacit knowledge requires face-to-face interaction between partners who already share the same language, i.e. 'codes' of communication, rules and norms, fostered by a shared institutional environment. Common institutional environment becomes one of the unique regional assets, which facilitates and strengthens the development of local advantage. Maskell and Malmberg (1999, p. 181) argue: "it is the region's distinct institutional endowment that embeds knowledge and allows for knowledge creation which – through interaction with available physical and human resources – constitutes its capabilities and enhances or abates the competitiveness of the firms in the region".

Spatial concentration of interacting firms sharing a common social and institutional context is an obvious prerequisite to socially organized, interactive learning processes and further technological and organizational upgrading. In such conditions the regional economic system is born with its shared attitudes, values, norms, routines and expectations – local business culture – that influences the practices of firms in the region. This common local business culture, that shapes the way that firms interact with one another in the regional economy, is a product of commonly experienced institutional forces (Asheim and Gertler, 2005). It fosters local firms to integrate within certain clusters, which encourages the development of a particular institutional structure (Bathelt et al., 2004). This process of institutional building is triggered by the establishment of 'communities of practice', when agents are bound together through day-to-day

interactions, based on the same expertise, a common set of technological knowledge and similar experience with a particular set of problem-solving techniques. Communities of practice in such a way lead to the generation of distinct routines, conventions and other institutional arrangements. Common institutions and procedural rules are established incrementally, constantly being reshaped by experience (Lawson and Lorenz, 1999). This is extremely important for global networks of firms, in which business actors all around the world, embedded in different socio-institutional and cultural environments, are engaged. Once such a network has been successfully established and works effectively based on a common set of institutions it provides substantial advantages to that local agent:

- Possibilities to go beyond the routines of the local cluster;
- Understanding of different institutional regimes in order to communicate and interact with actors in other parts of the world through global networks;
- Systematic influences of institutions, especially between different national environments, preventing the diffusion of universal operational standards or a single 'best practice'.

Establishment of certain institutional structures favouring regional economic development leads to the emergence of institutional proximities between different regions and localities. Institutional proximity provides the environment with economic agents that share the same rules, habits and values, which encourages the development of common trust between the companies. There is also a synergy effect of institutions when institutional proximity is relevant, namely if institutional complementarities arising when one institution increases the return from complementary institutions are at place (Boschma, 2005).

# 3. Analytical framework

Critical analysis of the role of local institutional environment for the development of multinationals and SMEs revolves around getting primary data from firms with regard to their assessment of the main institutional determinants of their economic activities. Therefore, an enterprise survey was carried out in three regions of Ukraine. The survey firms among other questions were asked to assess the quality of formal and informal institutions in their local regional economic systems. The survey questions were developed with the aim to answer the research questions introduced at the beginning of this chapter, on the basis of which the following hypotheses were formulated:

H 1. Quality of the institutional environment in the Capital region of Ukraine is higher than that of the Western and Eastern regions.

- H 2. The Western region of Ukraine gains in terms of higher institutional quality in comparison to the Eastern region.
- H 3. Local institutional quality of the host regions is assessed lower by the subsidiaries of MNEs in comparison to domestic SMEs.

The first hypothesis follows the analysis of the place-dependency of institutions and the importance of sub-national level in the formation of local institutional environment. Thus, it is assumed that there are region specific differences between the quality of institutions in different regions. As indicated earlier in the theoretical discussion institutional quality of the capital region is supposed to be higher than in the bordering regions in transition economies. The reason to this lies in uneven regional development of transition states with highly developed capital regions as important commercial hubs with a concentrated pool of highly skilled human capital in comparison to lagging behind periphery.

The second hypothesis aims at the analysis of the differences in institutional quality of the Western region of Ukraine as the close to the European Union border region and the Eastern region, which borders post-Soviet states. It is assumed that path-dependency of post-communist institutions and the dominant role of historically pre-established social "code of conduct" in the Eastern region of Ukraine as a member of Soviet Union will determine the respective difference in the quality of institutional environments of the Western and Eastern regions with regard to their geographical proximity to different states. This hypothesis also refers to the previous argument on the importance of fit between formal institutions and informal institutions. This is the case when formal institutions are inefficient, when rules and regulations that they impose do not work within the actual local business culture.

The third hypothesis is based on the paradigm introduced within the multiscalar approach in Figure C.2, which states that multinational companies entering new markets transmit the global rules and standards, inherited from their home countries, towards host countries. When MNEs enter transition economies markets, the costs of embedding within the local institutional environments rise. This results in the perception of a quite low quality of institutional environment by foreign firms, whereas domestic SMEs are already used to certain local institutional frameworks. Being much more institutionally locked in comparison to MNEs, domestic SMEs do not encounter the low quality of institutional environment to an extent MNEs do.

# 4. Data and methods

Based on the research methodology described in chapter A, the following data and methods were used. There was a crosstabs descriptive analysis of the assessments provided by the survey firms introduced. The descriptive analysis covered differences between three regions (differences between the capital region Kyiv, the Western close to the EU border region Lviv and the Eastern far from the EU border region Kharkiv); differences by the type of ownership (brown field FDIs, green field FDIs, Domestic SMEs with Soviet context and domestic new private SMEs); differences by regions within different ownership groups (Annex 1, 2, 3). By brown field FDIs those subsidiaries of MNEs, which entered the Ukrainian market and acquired an existing production site for future business operations, are meant. Green field FDIs group encompasses those subsidiaries, which built new production sites in Ukraine. Domestic SMEs with Soviet context are the ones which are either the spin-offs of government conglomerates, or were privatized or have state ownership, i.e. those who have any connection to the government and planned economy of the past. Domestic new private firms are basically Ukrainian young start-ups, built by the young generation and therefore having little if none link to the post-Soviet past.

The binary logit regression model was run for each of the six aspects of institutional environment separately and for the composite indicator of institutional quality for the purpose of robustness check. The results of the binary regression are presented in Table C.1. The composite indicator of institutional quality was built on the basis of equal weighting with 25% weight devoted to each of the four institutional aspects covered in the enterprise survey, provided that physical property rights protection and intellectual property rights protection were treated as one property rights protection indicator and central government support and regional government support were combined into one government support indicator. Thus, the composite indicator included equal weights of enforceability of legislation, property rights protection, reliability of oral contracts and agreements and government support. Since the questions on the above parameters were likert scale from 1 (very bad) to 5 (very good), the institutional quality composite indicator was recoded into a dummy with the value 1, i.e. good and very good quality of the institutional environment with the threshold of 3,5 and above on the likert scale, and 0 – average, bad and very bad quality of the parameter of institutional environment with the threshold of less than 3,5 on the likert scale.

After multicollinearity check the following control variables were used: regional dummy, ownership dummy, size of the firm in terms of logged number of employees, total sales and total exports, sector dummy, number of employees with higher education and number of employees involved in R&D together with the embeddedness indicators, such as cooperation with foreign suppliers and customers in the current region, where the survey firm is located, and in the rest part

of Ukraine. Regional and ownership dummy were chosen as independent variables in order to check the hypotheses introduced earlier. Controlling for size of the firm intended to check whether it could affect the assessment of the quality of local institutional environment with regard to an assumption that the size of the firm affects its embeddedness into the regional economic system on the basis of the market share and networks, which could lead to a better adjustment to the local institutional environment. Introduction of a sector dummy within the independent variables of the model served the purpose of checking whether the assessment of the local institutional environment depends on certain industry targeting and preferential treatment of certain sectors by the government. Human capital indicators, i.e. number of employees with higher education and number of employees involved in R&D, aimed at controlling for the impact of a better absorptive capacity of a firm leading to a higher embeddedness of the latter into the local economic system on the assessment of the quality of institutional environment.

### 5. Results

The first part of the results concerns crosstabs descriptive analysis of a dataset of the empirical survey of 458 companies in three regions of Ukraine. The analysis aims at identification of significant differences in the assessment of the quality of institutional environment in different regions of Ukraine and by different types of ownership. As it can be seen from the assessments of the different aspects of institutional environment in different regions in Annex 1 the capital region Kviv leads in terms of good assessment of local institutions with around 40% of firms rating institutional quality in Kyiv as good and very good, except for central and regional/local government support aspects being rated as of good quality only by 30% of firms. In the bordering Lviv and Kharkiv regions on average only around 25% of firms rate the chosen aspects of institutional environment as of good and very good quality. Moreover, the general trend is that around 50% of firms in Lviv and Kharkiv regions rate institutional quality as bad. Significant differences are also observed concerning central government support, which is rated as of bad quality by 70% of firms in Lviv and 65% in Kharkiv, but by only 40% of firms in Kyiv. Interestingly, Kyiv region also leads in terms of good assessment of the reliability of oral contracts with around 40% of firms assessing this aspect as of good and very good quality in comparison to twice less firms rating oral agreements as reliable in Kharkiv region. The assessment of the institutional quality by region within four ownership types proves a similar trend with Kyiv region leading in terms of positive assessment of the quality of institutional environment in all groups of firms. Thus, more than half of surveyed green field FDI firms rate institutional quality as high in Kyiv, while the percentage of domestic new private SMEs in the capital region that positively assess the latter is very low (Annex 3).

Annex 2 shows the general trend that MNEs assess the institutional quality at the present location higher than domestic SMEs, and the majority of domestic SMEs assess the institutional quality quite low. Moreover, green field FDI MNEs assess the quality of institutional environment at the highest rate, while domestic new private firms score the worst. On average up to 45% of green field FDI firms assess the institutional quality at the present location as good and very good, whereas for domestic new private firms this figure stands for only around 20%. The parameter of central and regional government support turns out to be the most divergent between different ownership groups. Thus, while MNEs still keep the pace in scoring these aspects of institutional environment as good and very good, only around 10% of domestic new private SMEs view government support as of good quality. Although Domestic SMEs with Soviet context rate government support higher than new private firms, the average share of firms with post-socialist past assessing government support is also below the one of both brown and green field FDI firms. Green field FDI firms also assess the reliability of oral contracts and agreements as of good and very good quality, since more than 55% of firms from this group voted for the highly reliable oral code of conduct.

The outcome of the binary logit regression model in Table C.1 is coherent with the above results of the descriptive crosstabs analysis. Regional and ownership dummy have significant negative impact on the assessment of institutional quality as a composite indicator in reference to Kyiv region and green field FDI firms. Regional dummy is not significant for physical property rights protection, reliability of oral contracts and agreements and regional government support. In the case of comparison of Kharkiv region with Lviv region there is only significant positive impact of regional dummy in the case of intellectual property rights protection. Cooperation with foreign suppliers in the current region turns out to have a significant positive impact on the assessment of the quality of enforceability of legislation and reliability of oral contracts and agreements, whereas cooperation with foreign customer in the rest of Ukraine has a significant negative impact on the informal parameter of institutional environment. A higher significance of the impact of cooperation with local suppliers and customers rather than national ones could possibly indicate that regionalization factor plays an important role in the differences of the assessment of institutional quality in different locations. This supports the previous discussion on the importance of the place dependency of institutions.

The sector dummy with food and beverages sector as a control group gets only significant in the case of regional government support with the negative relationship. Human capital indicator, namely the number of employees with higher education, impacts significantly positively the assessment of the reliability of oral contracts and agreements. For this indicator regional dummy was not significant, but ownership dummy proved to have a significant negative impact in

reference to green field FDI firms, which also goes along with the above descriptive results. Number of employees involved in R&D is not significant throughout the model, which could be explained by low R&D activity of firms in the sampled sectors of the enterprise survey in Ukraine. Nevertheless, overall size of the firm in terms of the number of employees has positive significant impact with regard to overall institutional quality, enforceability of legislation, intellectual property rights protection and regional and central government support. Concerning control for total sales it gets significant with negative relationship towards reliability of oral contracts and agreements. Total exports variable does not indicate any significant relationship towards the dependent variables of the binary logit regression model.

Table C.1: Binary logit regression model on the institutional quality

	IQ	EL	PPR	IPR	ROC	CGS	RGS
Regional dummies (Kyiv region as control group)							
Lviv region	-,936***	-,828***	-,452	-,763**	,034	-,845**	-,148
Kharkiv region	-,867***	-,528*	-,436	-,081	-,209	-,730*	-,332
Regional dummies (Lviv region as control group)							
Kyiv region	,936***	,828***	,452	,763**	-,034	,845**	,148
Kharkiv region	,069	,300	,015	,682**	-,242	,116	-,185
Ownership dummies (Green field FDIs as control group)							
Domestic SMEs with Soviet context	-1,281***	-,936**	-,566	-,989***	-1,499***	-1,128***	-1,237***
Domestic new private firms	-1,754***	-1,090***	-1,180***	-1,570***	-1,386***	-1,717***	-1,867***
Brown field FDIs	-,936**	-,277	-,374	-,911**	-1,486***	-,911**	-,490
Sector dummy ( Food & beverages sector as control group)							
Machinery & equipment sector	-,032	,081	-,275	,150	-,095	-,206	-,643**
Size of the firm							
Log of # of employees	,744**	,511*	,005	,585**	-,033	,652**	,804**
Total sales	-,019	-,001	-,006	-,011	-,031***	-,012	-,005
Total exports	,000	,002	,006	,001	-,005	,003	-,007
Human capital							
# of employees with higher education	-,006	-,004	,003	-,005	,009**	-,006	-,002
# of employees involved in R&D	,005	-,009	,009	-,010	,009	-,007	,008
Embeddedness							
Cooperation with foreign supplier in the current region	,007	,019*	,010	-,011	,030**	,011	-,008
Cooperation with foreign supplier in the rest of Ukraine	,002	-,005	,006	,008	,001	-,010	,017
Cooperation with foreign customer in the current region	,008	,003	,014	,018	-,023	-,020	,023
Cooperation with foreign customer in the rest of Ukraine	-,019	-,014	-,025	-,023	-,038*	-,008	-,021
Model fit							
Omnibus Test of Model Coefficients (Sig.)	,000	,000	,002	,000	,000	,001	,000
Correctly classified cases by the model	82%	78%	73%	76%	72%	85%	79%
Nagelkerke R Square	,213	,138	,114	,144	,150	,153	20%
N	415	421	422	418	421	420	420

Source: Provided by author

Note: IQ – composite institutional quality indicator; EL – enforceability of legislation; PPR – physical property rights protection; IPR – intellectual property rights protection; ROC – reliability of oral contracts and agreements; CGS – central government support; RGS – regional government support; \*Significant at the 0.10 level; \*\*Significant at the 0.01 level.

### 6. Discussion

The results of the descriptive analysis and the binary logit regression model towards the assessment of the quality of different aspects of institutional environment allow accepting the first hypothesis that the institutional quality in the capital region is better than that of the bordering regions. The availability of more companies in Kyiv region that rated institutional quality of the majority of the elements of local institutional framework as good and very good proves that in the capital region firms feel more comfortable within the regional institutional environment. The uneven regional economic development, being affected by the uneven quality of the regional institutional systems, is also proved by the fact that half of the firms rate institutional quality as bad in the bordering regions. Moreover, the results of the binary logit model prove that the probability of firms in Lviv and Kharkiv region rating institutional quality as good and very good is lower than the probability of firms doing so in Kyiv region. The capital region also leads in terms of the reliability of oral contracts and agreements according to the descriptive statistics results, which together with higher overall institutional quality in Kyiv region would let assume that the informal institutional component is as important as the formal one. Formal rules and laws seem to function when they fit with informal business culture. Thus, when the quality of formal legislations is high, it owes to some extent to the informal pre-established code of conduct, which contributes to the integration of formal institutions into the society. Higher institutional quality of the capital could be explained with a twofold reasoning. Firstly, the capital region in a transition economy is a commercial hub which concentrates the best developed infrastructure, established networks of customers and suppliers, access to knowledge and technological potential. In such a way the capital becomes the source of opportunities while attracting business actors from other regions, where the regional economic system is weaker. This leads to the emergence of the second reason, why the capital region outstrips the bordering regions, which results in the development of a better institutional environment in the latter. Being the high-income region, the capital attracts human capital, namely highly qualified employees and entrepreneurs, who can introduce their expertise in exchange for better work places and wider opportunities. Especially this concerns subsidiaries of MNEs, which are based in the capital, because this is where the better qualified people are. Except for highly knowledgeable migrants coming from the periphery regions to the capital for better opportunities, there is also a wide range of specialists pulled to the capital primarily due to better education opportunities. These are attracted by a better university and research networks in the capital. Therefore, highly knowledgeable human resources in their turn attract FDIs, seeking for experts in their fields. Provided all this, the regional economic system of the capital in a transition economy becomes the driver of the national economic system, which serves as an incentive for the government to support the development and growth of the capital.

This leads to, on the one hand, introduction of such a business-friendly institutional environment in the latter, which positively impacts economic and business activities of its actors, leading to their better assessment of institutional quality; and on the other hand, to the lagging behind of the bordering regions, which do not receive enough of the government support.

Central government support is consequently also directed mostly to the capital region, which in such a way only negatively affects the differences in regional development. Thus, Lviv region, being less industrialized in comparison to Kharkiv region, seems to be the least supported by the central government. However, the regression results with Lviv region as control group show that only in terms of intellectual property rights protection Kharkiv region significantly differs from Lviv region, meaning that the probability of firms assessing positively intellectual property rights protection in Kharkiv region is higher than in Lviv region. Therefore, the second hypothesis that Lviv region has higher institutional quality than Kharkiv region cannot be accepted.

Industrialization of the Eastern part of Ukraine as the remains of the post-Soviet times seems to still have a legacy today, since it is more difficult to change already existing system rather than to create something new. Lack of motivation of the interested parties to transform the system of the past resulted in the government support of the existing system, which influences the formation of local business culture and therefore, informal institutional environment, impacting the economic development in the long run. The government support of the existing system results in preferential treatment of those firms located in the Eastern part of the country since these are the main economy generators. This results in neglecting potentially new sources of economic growth, such as close to the European Union Western part of the country, which is in a need of government support and business friendly environment. In such a way, there might be an institutional lock-in of the Eastern part of Ukraine at place, which could possibly serve as one of the reasons of uneven regional development of the country. On the other hand, it cannot be argued that the Western region of Ukraine was not affected by the Soviet planned system, since the Soviet Union economy was all about equal national and regional economic treatment of its members. The only difference in the Soviet regulation of the East in comparison to the West of Ukraine was in the prioritizing of regions and sectors with regard to government support. This meant that while the Western part of the country was an agricultural centre, the government was less interested to develop its economic and institutional infrastructure, since there was the more industrialized and strategic East serving as the first priority. This resulted in the existence of the remains of the Soviet legacy in both Western and Eastern parts of the country. What matters even more is how the national government treats different regional economic systems today. Central and regional government support being much more directed towards industrial East could be explained by the willingness of the state to get the maximum of the existing running system with established infrastructure and networks of firms, focusing on the hard industry as the driver of the economy. This seems to be the remains of the Soviet times, when supporting the old, possibly less efficient, system was chosen over creating a new source of economic wealth.

MNEs on general assessing institutional quality higher than domestic SMEs makes reject the third hypothesis that foreign firms, being used to the global institutional quality standards, will be more affected by the inefficiencies of the local institutional environment of the host regions. The regression results show that domestic SMEs, specifically domestic new private firms, have the highest significant negative relationship towards positive assessment of institutional quality overall and different six aspects of institutional environment. This means that the lowest probability of assessing institutional environment as of good and very good quality belongs to domestic new private firms in comparison to green field FDI firms. This could be explained by an earlier line of argument that MNEs tend to create their own institutional environment. The fact that green field FDI firms rate the quality of institutional environment even higher than brown field FDI group could possibly mean that foreign subsidiaries entering the host economy from scratch, i.e. aiming at building their own production sites, tend to introduce new customer-supplier networks, attract better government treatment since they provide substantial capital and technological base to the location, which all results in the emergence of a local microsystem around MNEs. This microsystem exists on the basis of a certain institutional environment the new comers create, which results in their better assessment of institutions, since the latter are adjusted to the needs of the MNEs. Moreover, larger firms are more likely to assess institutional environment as of high quality, which also could lead to a possible conclusion that larger firms get better embedded into local economic systems and benefit from it.

New private domestic firms, on the other hand, seem to be the most discriminated by the local institutional environment, which could let assume that the government does not support domestic SMEs enough to introduce friendly institutional frameworks for the start-ups and young generators of economic wealth. This also could be explained by no willingness of the state to encourage and support the new system, which requires introduction of an institutional environment, which will foster the development of new domestic SMEs. The more precise focus of the state on attraction of MNEs as the sources of capital over support of national business agents impacts negatively entrepreneurship climate in the transition economy, which is one the main determinants of the SMEs development prospects in the country.

## 7. Summary

This chapter deals with the discussion of the interrelatedness of formal and informal institutions as the pre-requisite of the high quality institutional environment in a transition economy, regional differences of the quality of institutions and embeddedness of MNEs and

domestic SMEs within local institutional frameworks. There is a conceptual framework developed after a theoretical discussion, based on the multiscalar approach to institutional co-dependence and integration of foreign subsidiaries together with domestic SMEs into the local institutional framework of a transition economy. This chapter discovers both theoretically and empirically with the help of the results of the enterprise survey carried out in Ukraine, firstly, the availability of subnational differences in the quality of institutions in Ukraine and secondly, the divergence of perceptions of MNEs and domestic SMEs towards the quality of local institutional environments.

Thus, there is a difference between the capital and the bordering regions of Ukraine in their assessment of the quality of institutions, with the capital region leading in its positive assessment of the latter and bordering regions stating bad quality of institutional environment. Moreover, the capital region leads in terms of the positive assessment of the informal aspects institutional environment, namely the reliability of oral contracts and agreements, which states close interrelation between formal and informal components of an institutional framework. Thus, the high quality of formal rules and regulations leads to the good quality of informal code of conduct, which is an important complimentary element to the overall quality of institutional environment. Local business culture influencing organizational behaviour in a transition economy becomes an important pre-requisite of a successful integration of formal constitutions into regional economic system. The differences between periphery regions, bordering radically different economies, namely the EU states in the case of the Western region of Ukraine and Russia in the case of the Eastern region, are not significant in assessing the quality of local institutions.

MNEs tend to assess institutional quality better than domestic SMEs. This leads to a possible conclusion that foreign subsidiaries might create their own institutional environments through the means of deinstitutionalization, rather than opposing institutional rules of the host economy, being used to the standards of their home countries. Preferential treatment of the government towards FDI also plays an important role in determining the reasons why MNEs assess institutional environment in the host location better than domestic SMEs. Thus, MNEs being attracted by local governments win in terms of better institutional endowments in comparison to domestic SMEs. This could negatively affect SMEs development in the host countries.

## CHAPTER D. LOCATION CHOICES OF MULTINATIONAL COMPANIES IN UKRAINE

This chapter explains the location choices of multinational companies (MNCs) in a transition economy by traditional economic factors and institutional quality. Based on a thorough theoretical framework and a set of hypotheses, empirical data of an enterprise survey of 153 foreign firms in three regions of Ukraine is analysed. The data contains information on location choice of MNCs, assessment of institutional quality, and embeddedness within the regional economy. This chapter contributes to the literature on MNCs and location choices by introducing an analysis of a set of foreign direct investment (FDI) location choice determinants at the regional level within a transition economy perspective, which has not gained sufficient attention in existing research.

#### 1. Introduction

The role of FDI for economic growth and development of states, regions and cities has been widely investigated recently (Bevan and Estrin, 2004; Dunning, 1993; Meyer and Nguyen, 2005). While the impact of multinational companies' activities on the economic development of the countries hosting their subsidiaries has been discussed quite comprehensively in the literature, the regional level and the factors behind the geographical distribution of FDI at the sub-national level have not gained sufficient attention (Cantwell and Iammarino, 2000).

Special attention has been paid to FDI flows to transition economies, which owe their economic and social transformation to a large extent to foreign firms, which introduce knowledge, technology and new opportunities into these emerging markets. Transition from socialism to capitalism and the integration of Central and Eastern European countries into the world economy proceeded through international trade and capital flows, which encouraged growth and innovation, and facilitated the restructuring of firms and sectors (Bevan and Estrin, 2004). Foreign-owned firms usually possess higher labour productivity, innovation potential, supplier and customer networks than incumbent firms when entering new markets. FDI flows from developed countries towards emerging economies becomes an important transmitter of economic resources and serves as a catalyst for development and attraction of further investments (Frenkel et al., 2004).

Foreign investors assess overseas locations within the paradigm of opportunities and obstacles. They are mainly interested to invest into the locations which offer advantages in terms of proximities, market growth, lower costs, strategic resources, and favourable institutional conditions in order to maximise their return on investment. Institutions contribute substantially to the location advantage, since the specific institutional setting at the location of a business activity is of great importance in large and decentralised emerging markets. Transition states have opened

their economies for inflows of foreign capital since their socio-political transformation. But despite the spread of market institutions at the national level, the business environment at the regional and local level faces frequent changes of policies, institutional rules and attitudes, which reduce the enforceability and predictability of institutions for potential foreign investors.

The factors that attract MNCs towards certain markets and economies are unevenly distributed among countries and regions. While some regions are clearly benefitting from attractive initial conditions, which pull in foreign investments that further foster the transition process, regions which do not have such favourable conditions lag behind and perform relatively poor (Barrell and Pain, 1999). Thus, the regional variation in the institutional environment at different locations represents an important extension of the original reasoning about foreign firms choosing specific markets (Meyer and Nguyen, 2005). This is of an even bigger importance for countries which share a border with the European Union (EU) and are not yet the members of the EU, but part of the European Neighborhood Policy (ENP). It is supposed that geographical distance to the EU border has an impact on the institutional quality and, thus, the investment decisions of MNCs. An advantageous position of regions closer to the border and capital regions is expected.

The range of specific host region determinants for the attraction of FDI is generally divided into two broad groups: traditional economic factors and institutional factors (Frenkel et al., 2004; Bevan et al., 2004; Kang and Jiang, 2012). Traditional economic factors are based on the systematic conceptualisation of FDI location choices by Dunning (1993) in his eclectic paradigm OLI, which stands for ownership, location and internalisation advantages. The importance of specific traditional location factors attracting FDI according to Dunning depends on the motives of the investor, namely natural resource seeking, market seeking, efficiency seeking and strategic asset seeking. Based on these motives, this chapter will describe a broad range of region specific economic factors, such as cost-related parameters, market-related factors, availability of local knowledge and technology, and agglomeration forces that all have a significant impact on the propensity of MNCs to invest abroad.

The relevance of the institutional perspective for location choices of MNCs has gained a much wider audience recently. It focuses explicitly on the embeddedness of firms into local institutional environments (Kostova and Zaheer, 1999). Foreign firms become highly dependent on the institutional factors at the chosen location for investment and have to adapt themselves (at least to a certain degree) to the local institutional framework in order to gain legitimacy and integration within the regional economic system. FDI from developed into developing countries depends even more on institutional parameters, since developed country MNCs are used to a business environment shaped by a set of rather complete market-based institutions in their home markets (Kang and Jiang, 2012). Nevertheless, these MNCs are often big players in their industry and have

the power to shape institutional contexts in the host country due to their large size, superior capabilities and dominant position in global value chains. Thus, an interdependent perspective on institutional quality, location choices of MNC, and institutional change is needed.

The aim of this chapter is to identify determinants of location choices of FDI in transition economies, based on empirical evidence of an enterprise survey of 153 foreign-owned firms, carried out in three regions in Ukraine. The analysis of the results of the enterprise survey aims at answering the following research questions:

- 1. What are the motives of foreign investors coming to different regions of Ukraine?
- 2. Which regional factors determine the location choice of foreign firms in Ukraine?
- 3. How do foreign firms assess regional institutional quality in Ukraine?

The conceptual framework of this chapter deals not only with place specific characteristics of the receiving country, but takes a broader look at the motives of foreign firms to invest in local capabilities in the host region, covering in such a way also the management perspective of investors with regard to the value added of their managerial investment decision making. The results of the survey will also uncover the link between initial aims of MNCs and their strategic orientation in the host region. This approach will provide a comprehensive picture of patterns of location decisions for FDI in transition economies and more specifically in Ukraine. This chapter contributes to the provision of a thorough theoretical framework on location choices of MNCs by integrating institutional and proximity components within the empirical results on (1) traditional economic factors that attract FDI to certain localities within transition economies, specifically Ukraine and (2) institutional and proximity parameters of regions that attract or distract MNCs in order to determine the impact of the institutional environment and proximity advantages of certain regions on the propensity of foreign firms to invest in certain regional host markets.

This chapter consists of the following parts: section 2 describes internationalization of MNCs, explaining the focus of this chapter on the FDIs towards transition economies and the reasoning behind a company's decision to internationalize; section 3 presents the conceptual framework of this chapter and discussion on the main determinants of the location choices of MNCs; section 4 introduces the analytical framework of this chapter with the main hypotheses of the empirical research; section 5 covers data and methods; section 6 provides the results of empirical analysis of the dataset of the enterprise survey in Ukraine; section 7 follows with the discussion of the results; and section 8 introduces the summary of the whole paper.

## 2. Internationalization of multinational companies

## 2.1 Foreign direct investments in transition economies

According to United Nations (2012) FDI inflows to transition economies, which include South-East Europe and the Commonwealth of Independent States (CIS), increased in 2011 by 25%

up to \$92 billion, whereas the increase of FDI flows towards developed and developing economies was about 21% and 11% respectively. Developing and transition economies continue to account for more than a half of the world's FDI inflows, comprising 45% and 6% of global FDI inflows respectively, although in terms of FDI inward stocks developing and transition economies are still lagging behind (United Nations, 2012). Indicators suggest that transition economies will continue with the same pace of growth rate of FDI inflows in the mid-term (Table D.1).

Table D.1: World FDI inflows, billions of dollars

Region	FDI inflows		%			FDI inward stock	%	FDI inflows projections		
	2009	2010	2011	2009	2010	2011	2011	2011	2013	2014
Developed economies	606,2	618,6	747,9	50,6%	47,3%	49,1%	13055,9	63,8%	810-940	840-1020
Developing economies	519,2	616,7	684,4	43,3%	47,1%	44,9%	6625,0	32,4%	720-855	755-930
Transition economies	72,4	73,8	92,2	6,0%	5,6%	6,0%	757,3	3,7%	100-130	110-150
World	1197,8	1309,0	1524,4	100%	100%	100%	20438,2	100%	1630-1925	1700-2110

Source: Provided by author, based on United Nations (2012)

Executives of the major MNCs have rated the economies of developing and transition states among top 10 destinations of their FDIs until 2014 according to the World Investment Prospects Survey 2012-2014. In 2011 Ukraine together with Russian Federation and Kazakhstan belonged to the group of the highest FDI inflows, namely the group of above 5 billion of dollars investments (United Nations, 2012). Thus in Table D.2 it can be observed, that Russia and Ukraine hosted together more than 90% of green field investments in 2011, which contributed to the overall two thirds of green field investments being hosted by developing and transition economies.

**Table D.2**: FDI flows and stock in CIS in 2011, millions of dollars

dollars	01 010	As % FDI stock, of CIS millions of dollars		field FDIs projects	of CIS
84539	100%	672253	100%	17485	100%
525	1%	5046	1%	83	0%
1465	2%	9113	1%	435	2%
3986	5%	12987	2%	127	1%
12910	15%	93624	14%	383	2%
694	1%	1274	0%	-	-
274	0%	3163	0%	0	0%
52878	63%	457474	68%	15503	89%
11	0%	993	0%	-	-
3186	4%	16627	2%	-	-
7207	9%	65192	10%	954	5%
1403	2%	6761	1%	-	-
	84539 525 1465 3986 12910 694 274 52878 11 3186 7207	84539         100%           525         1%           1465         2%           3986         5%           12910         15%           694         1%           274         0%           52878         63%           11         0%           3186         4%           7207         9%           1403         2%	84539         100%         672253           525         1%         5046           1465         2%         9113           3986         5%         12987           12910         15%         93624           694         1%         1274           274         0%         3163           52878         63%         457474           11         0%         993           3186         4%         16627           7207         9%         65192           1403         2%         6761	84539         100%         672253         100%           525         1%         5046         1%           1465         2%         9113         1%           3986         5%         12987         2%           12910         15%         93624         14%           694         1%         1274         0%           274         0%         3163         0%           52878         63%         457474         68%           11         0%         993         0%           3186         4%         16627         2%           7207         9%         65192         10%           1403         2%         6761         1%	84539         100%         672253         100%         17485           525         1%         5046         1%         83           1465         2%         9113         1%         435           3986         5%         12987         2%         127           12910         15%         93624         14%         383           694         1%         1274         0%         -           274         0%         3163         0%         0           52878         63%         457474         68%         15503           11         0%         993         0%         -           3186         4%         16627         2%         -           7207         9%         65192         10%         954           1403         2%         6761         1%         -

Source: Provided by author, based on United Nations (2012)

The reasons of such a significant rise of transition economies on the global FDI arena originate from the past. Since 1990s Central and Eastern European countries have undergone profound transformations of their economic and social systems in a pursuit of change from planned socialist economic systems towards market economies. Substantial economic liberalization, which underpinned these transformations, resulted in the appearance of transition markets as popular destinations for FDIs from abroad (Majocchi and Strange, 2007). The range of factors, that attract foreign investments, is very broad considering the fact that all Central and Eastern European markets move away from their communist legacy and have established themselves as new untapped markets with a big potential of consumer demand, plenty of resources, low cost production locations and strategically important access to new knowledge and labour. On the other hand, transformation from the Soviet past towards a new capitalist system included certain transition of regional economic systems, which had been shaped by the socialist industrialization in the Soviet times. This meant a distribution of industries without an efficient market-based economic rationale behind it. During the transition period, their regional industrial structures lost their right to exist and became locations without a competitive future if industrial development was still based on the paradigm of planned development rather than economic efficiency. Thus, after the collapse of the Soviet Union and consequently of the socialist industrialization system all regions were left with socialist legacy which included a certain social platform, i.e. socialist mentality, and economic prerequisites originating in industrialised economic systems with a respective infrastructure.

The extent to which regions have managed the post-socialist transformation has an impact on the FDI inflows to these locations. Since foreign investors strive to minimize their costs in order to marginally benefit from their investments, they aim at getting embedded into the regional economic systems of the host country. For such an embeddedness to take place foreign investors try to avoid regions with strong socialist industrialisation heritage due to the difficulty of integration into the different cognitive, social, organisational and institutional environment. Therefore, path-dependency of the economic system influences location choices and the intensity of local embeddedness of foreign firms, particularly in the case of post-Soviet transition states.

## 2.2 Imperatives of a "multinationality" of firms

The location choice of an MNC is of a strategic importance, because the factors which attract foreign firms to certain locations determine the firm's competitiveness in the long run. International strategies of transnational companies are centred on tapping selective knowledge and strategic location-bound resources in order to improve the comparative advantage of an internationalizing firm over the non-internationalizing (Porter, 1994). Internalisation theory developed by Buckley and Casson (2002) and extended by Hennart (1982) states that transnational

companies strive to act in such a way so that to develop their internal specific advantages, which they can then exploit while internationalizing. Hymer (1976) contributes to the internalisation theory with the line of thinking that any firm decides to invest abroad only when the benefit of exploiting firm-specific advantages outweigh the relative costs entering foreign markets. Internalisation theory was also very much supported by Dunning (1980, 1988) with his eclectic paradigm. The OLI paradigm deals with three theories of FDI, where:

- •"O" stands for **ownership advantages**. Ownership advantages refer to the firm-specific assets, both tangible and intangible, that firm possesses, specifically with regard to the property competences, which enable a company to marginally outreach its competitors in terms of profitability. Any firms have a certain set of internal advantages, over which it has monopolistic rights that allow using those advantages for the clear benefit of the firm. These advantages can be divided into three groups (Denisia, 2010):
  - monopoly advantages privileged access to a market through having property rights on certain patents, trademarks and limited resources;
  - technology advantages knowledge important for enforcement of innovation and upgrading activities;
  - o economies of large size economies of scale, scope, learning.
- "L" stands for **location advantages**. Location advantages are all those factors a specific location owns, that attract foreign companies to the hosting location. Advantages of a certain country or even region can be divided into economic advantages, institutional advantages and social advantages. All these location-specific parameters enable an MNC to become more profitable with either lower costs involved or better access to specific knowledge, which becomes a strategic asset on the way to outperforming competitors.
- •"I" stands for **internalisation advantages**. Internalisation advantages refer to those advantages which are brought to the firm by owning production within a specific location rather than by licensing or joint-venture agreements. When the benefits of producing the products by itself are higher for the firm than costs of not doing so, then the firm might choose entering a new market through the FDI entry mode.

The strategic importance of factors for choosing a particular location when investing abroad depends on the motivation to relocate a value-added activity. Dunning (1993, 2000) identifies four main motivations for FDI, namely, market seeking, resource seeking, efficiency seeking and strategic asset seeking. *Resource seeking* investors strive for the availability of cheap natural resources, labour, physical infrastructure. Natural resources play a very important role in the decision of an MNC to enter the market, because they are often an important prerequisite for making use of the market and the strategic assets this market can offer. Historically, foreign

investors were attracted by natural resources such as minerals, raw materials and agricultural products. Central and Eastern European countries are well known for the abundance of natural resources as one of the most important determinants of FDIs. Availability of oil and gas, land and sea are voted to be top-ranked by foreign investors coming to Russia, Azerbaijan, Kazakhstan and Ukraine (Kudina and Jakubiak, 2008). Therefore, the growth of FDI flows to countries of the CIS in 2011 is determined by natural resource seeking FDIs, mostly green field investments in mining, quarrying and petroleum (United Nations, 2012).

Market seeking investors are attracted by the host country's market size, its income per capita, market growth and consumer demand in order to benefit from the economies of scope and scale. Within market seeking strategies, proximity plays a very important role, because MNCs are encouraged to invest in those locations, where potential suppliers and customers are already present. Moreover, MNCs are very much bounded by localisation economies, which results in a tendency to invest, where other firms from their home countries and/or the same sector of economic activity have already established their presence. The market seeking motive has also been acknowledged as a very important determinant for FDI locations in post-Soviet states. After the transformation these countries have undergone in 1990s, their markets have been established as emerging platforms for new untapped opportunities (Ledyaeva, 2009). Nowadays the vast majority of FDI inflows attracted by the CIS countries are determined by continuously strong growth of local consumer markets (United Nations, 2012).

Efficiency seeking investors aim at reaching more efficient division of labour or specialization of assets (Dunning, 2000). Reduction of entry barriers and transport costs usually enable the efficiency seeking FDIs to grow. This makes them sequential to the first two types of foreign investment motivations. Foreign investors when entering new markets because of the natural resources abundance or new market opportunities strive to organize their business activities at a host location in such a way so that to benefit from the optimization of labour division. Therefore, this chapter will not focus in detail on this motivation of FDI, treating it as the one related to the first and second types of foreign investment motivations.

Strategic asset seeking investors are motivated by an opportunity to rationalize the structure of the market seeking investment so that the foreign firm benefits to the most from the way its activities are geographically spread (Kudina and Jakubiak, 2008). The main purpose of these investors is to gain from different local-specific factor endowments, culture, institutional environment, specific knowledge and technologies available at the host markets. Firms go abroad when they already have certain unique capability they want to develop further. Therefore, MNCs expand in order to gain access to those capabilities, which are essential for the development of their own competencies, but are not available at their home markets (Cantwell, 1989).

The OLI paradigm stresses out one important aspect any firm considers before its internationalization. This is referred to a transnational company's decision to enter a foreign location based on the maximised economic efficiency, i.e. the trade-off between the costs, involved in setting the production at a different location abroad, and the costs of exporting the products from the home to a hosting country. This reasoning is approved by the gravity approach (Bevan and Estrin, 2004). The gravity theory states that the decision of an MNC to go abroad is determined by the relative market sizes of the home and host countries and their distance from each other. Distance is then viewed as a measure of the transaction costs involved when going abroad. Thus, the costs of adjustment to the local market in terms of language, culture and logistics among many others are supposed to rise when the distance increases. The gravity model introduces an important parameter, such as proximity, as one of the factors that have a strong impact on the firm's decision to invest in a specific market. Proximity in detail will be further discussed in detail within the conceptual framework.

In 2008 Dunning has revised the OLI paradigm, adding institutions as an important component within the whole framework. Combining the macro level of institutions as the controlling mechanism of the behaviour of economic agents, and the micro level of institutions impacting managerial decision making, institutions affect all three elements of the eclectic paradigm (Dunning and Lundan, 2008). The authors state that the most objective link between institutions and the OLI paradigm exists with regard to location advantages. This is where institutions as formal and informal rules of the game together with the enforcement mechanisms introduce certain laws, regulations, rules of the civil society that form certain location-specific institutional environment. The internalisation advantages are institutionalised at the micro level, because when a firm is taking a decision about ownership of certain physical assets in the hosting country, it automatically deals with the relational advantages of such an ownership, i.e. contracts trust-based relations and institution building through networks of firms (Dunning and Lundan, 2008). The least institutionally connected are ownership advantages. As the authors put it, since ownership advantages are exceptionally internal and firm-specific, informal institutions in a form of a certain "corporate culture" are easily influenced by external norms and values of the local environment, in which the firm is embedded.

## 3. Conceptual framework

The analysis of the location choices of MNCs in transition economies, specifically in Ukraine, is threefold: analysis of the aim of foreign investment towards the region specific hosting market, basically investor's motivation, identification of the (inter)national level determinants and

analysis of the sub-national level determinants of the location choice of the foreign investment (Figure D.1).

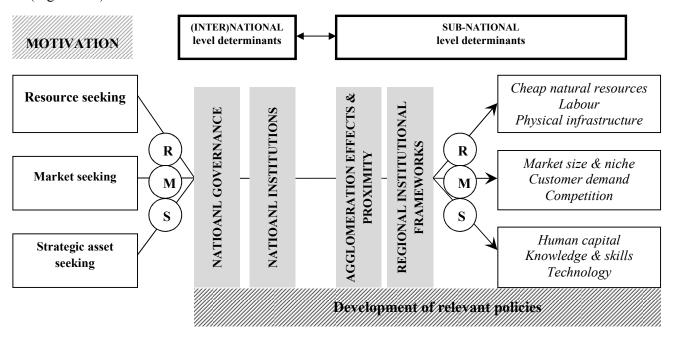


Figure D.1: Conceptual framework on the location choices of FDIs

Source: provided by author

If MNCs decide to internationalize, they base their location decisions on their preliminary motivation. Since the conceptual framework targets Ukraine as a post-Soviet, Eastern European Neighborhood policy state, the focus is set on resource seeking, market seeking and strategic asset seeking, as the most dominant motivations in this region, omitting in such a way efficiency seeking (Ledyaeva, 2009). Depending on the incentives of going abroad, investors search for precisely those local factors, available at the host location, which will satisfy their initial aim of investment. Therefore, these factors differ with regard to the motivation of internationalization. These local region-specific factors are called sub-national level determinants together with regional institutional framework and agglomeration effects and proximity, while national governance and national institutions stand for the (inter)national level determinants. Thus, institutional environment plays an important role at both national and sub-national levels.

Agglomeration effects and proximity determinants attract foreign firms with regard to lowering transaction costs because of short distance and overall positive externalities, which they cause. They also shift the perspective to the sub-national level, where available resources, infrastructure and knowledge play an important role in attracting FDIs to certain regions. Thus, on the sub-national level the location choice of a certain region by an investor will depend on the concentration of knowledge spillovers and technology exchange, generated by the proximity to the

firms from the same sector or origin (Rodriguez-Clare, 2007). However, while certain sub-national level determinants gain relative importance with respect to the motivation an investor has towards entering the hosting economy, institutional quality determinants are assessed by all investors regardless of their motivation. Overall national governance and institutions play an important role in the location choice of an investor with regard to the hosting economy, although if the market size or growth is very attractive as in the case of China for example and to an increasing degree in Ukraine or Russia, MNCs might be willing to invest in these locations even if the institutional environment is still hostile. Here regional institutional frameworks might even play a bigger role, since the institutional catch-up of the transition states is very different in diverse regional economic systems. While the capital regions tend to benefit from closer access to the government, institutional quality of the capital might differ to a big extent from that of the bordering regions. This is especially important for the policy development, because the "one-size fits all" policy based only on the national level institutional quality might not work considered institutional differences in regions.

## 3.1 Institutional quality

Institutional differences at different locations stand out to be an important factor in the decision making with regard to internationalizing not only to the new countries, but even to the new regions within those countries. Thus, just as institutions at the national level attract the inflows of FDIs to the countries, institutions at the sub-national level attract investment to the regions (Meyer and Nguyen, 2005). Settling within certain regions, firms get embedded into the regional economic systems. The success of their business operations in these regions depends on the factor endowments of the specific regions. Institutions are one of the major factors that determine the way a firm will integrate itself into the local economic system. Institutional quality is expressed through the degree to which institutions create firm-friendly favourable conditions, which are coherent over time with high predictability of changes aimed at facilitation of doing business within certain geographic areas. Both formal and informal institutions of a certain locality, which is hosting the investment of an MNC, moderate the transaction costs in the hosting markets and determine the access to the local networks, which are essential for the MNC to successfully embed within the new environment. North (1990) states, that institutional environment establishes formal an informal rules of the game, which reduce uncertainty and transaction costs. In such a way impacting the business strategies of local domestic firms, there is a specific institutional mi-lieu created, which plays the role of a filter for foreign firms striving to invest into the new market. Bevan et al. (2004, p. 45) support the ideas stated above with "legal, political and administrative systems tend to be internationally immobile framework whose costs determine international attractiveness of the location".

When a firm decides whether or not to enter a certain market its main objective is to gain market legitimacy. Establishment and maintenance of legitimacy in the new local-specific environment is very important within the foreign expansion of any MNC. Kostova and Zaheer (1999, p. 64) define organizational legitimacy of an MNC as "the acceptance of the organization by its environment, which is vital for its organizational survival and success". The authors identify three factors that frame organizational legitimacy: the environment's institutional parameters, the organization's characteristics and the process of legitimacy that impacts how the environment views the organization. The organizational legitimacy is analysed in such a way through the processes of overcoming entry barriers by a foreign firm in the hosting economy and by adapting to the existing cultural environment. The entry barriers a market has towards incoming flows of capital and goods are created by institutional environments, which frame the activities of these markets. Therefore, an entry barrier is one of the first elements of an institutional framework the MNC faces when entering the market. Again coming back to the transaction costs theory and internalisation theory, when the costs of overcoming the entry barriers of the new market for a foreign firm outweigh the potential profit the firm can make in this new market within the development of its competitive advantage, the firm will not internationalize to this specific market. MNCs try to identify in which locations the institutional constraints are less repressive (Kang and Jiang, 2012). In such a scenario, institutional elements of a certain economy become the bottleneck of the firm's decision of whether to invest or not in this economy. Cultural adaptation of an MNC in the market although being an important factor in successful embeddedness of a firm within the local economic system, is not a sufficient condition for the organizational legitimacy to take place (Kostova and Zaheer, 1999). The reason to this lies in the fact that organizational legitimacy of a foreign firm is socially constructed, which means that there should be a definite fit between the formal institutional component and the way the foreign firm is integrated within the latter and an informal institutional environment, which makes the organization being ingenuously accepted by the local market. Thus, MNCs in the hosting markets face three pillars of institutional environments, namely the regulatory, the cognitive and the normative (Scott, 2001). When taking decision on entering a new market, a firm assesses not only the regulatory pillar of institutions, i.e. local laws and regulations, but also the cognitive pillar of cognitive structures of society and the social pillar of societal values this society embraces (Kostova and Zaheer, 1999). Such a multipillar assessment of the hosting institutional environment is an important key in the decision of a firm to invest in a certain market. Within the regulative pillar of institutions it has been empirically proved that such national level regulative parameters as macroeconomic and political stability; government policies facilitating the ease of doing business; efficient market institutions, i.e. development of banks and capital markets; targeted government-business cooperation, namely

introduction of such programs by the governments that could serve corresponding needs of the business community, play a very important role in attracting FDIs to the transition economies. The above mentioned policies are introduced by national governments, but often differently enforced by local decision makers. As shown in Table D.3 policies introduced in Ukraine in 2013 reduced the complexity and cost of regulatory processes, strengthened legal institutions, made starting a business easier, eliminated several bureaucratic procedures, facilitated dealing with construction permits, and upgraded the taxation and bank crediting systems (World Bank, 2013c).

**Table D.3:** Ease of doing business in Ukraine compared to the regional average

Parameters	2012	Average for Eastern Europe and Central Asia	2013	Average for Eastern Europe and Central Asia	2014	Average for Europe and Central Asia
Starting a business	112	65	50	60	47	58
Dealing with construction permits	180	127	183	126	41	116
Getting electricity	169	129	166	123	172	118
Registration property	166	60	149	59	97	59
Getting credit	24	51	23	53	13	53
Protecting investors	111	68	117	62	128	65
Paying taxes	181	99	165	95	164	91
Trading across borders	140	105	145	107	148	107
Enforcing contracts	44	61	42	59	45	61
Resolving insolvency	156	81	157	80	162	78

Source: Own draft by author on the basis of World Bank (2012); World Bank (2013b); World Bank (2013c)

With respect to the cognitive pillar, foreign firms before taking the decision of whether to invest into a certain location or not assess the routines of the domestic firms in the markets, which form a specific local cognitive structure. This is needed to percept the behavioural pattern of the future suppliers and customers the foreign firm will cooperate with. At this point trade relations are being framed by the local institutional environment and the latter influences the whole expansion strategy of an MNC. Within the normative pillar of institutions cultural distance between the foreign firm and the domestic firm in terms of pre-established informal rules and norms, local business culture, gives a hint for the foreign firms on the level of difficulty of embeddedness into the local economic system.

The legal framework of the transition economies has drastically changed after the collapse of the Soviet Union. The institutional transition of regions in post-Soviet countries hinders rather than supports economic growth since the institutional legacy of the past still prevails in many areas of the economy (Tridico, 2011; Nagy, 2002). Post-Soviet governments did not manage to effectively change their institutional environments and the fit between formal and informal institutions is still lacking due to the existence of the old communist heritage. Therefore, Western businesses entering Eastern and Central European markets face higher transaction costs, because they have to adjust to the normative and regulatory pillar of institutional environments with a lower quality than in their home market, to the cognitive pillar of post-Soviet legacy, and post-communist informal mind-set. Nevertheless, MNCs do choose emerging markets of transition states as their primary investment locations, although their region specific locations differ according to their readiness to deal with the path-dependent institutions. According to Bevan et al. (2004), the reason for this is that firms try to find ways to benefit from certain peculiarities of institutions in post-socialist states in two ways. Firstly, the change of ownership in the post-Soviet states enabled privatization of many formerly state-owned firms. This leads to the development of a private sector and firms tend to be attracted by private firms to do business with these new players due to their higher profitability, urge for new business opportunities, and market friendly corporate cultures. Moreover, privatization allows for acquisitions of formerly state-owned firms or monopolies by MNCs, which became one of the major modes of entry for foreign firms. Secondly, institutional transition implies the establishment of a new financial infrastructure, which at its infancy stage offers low costs for its financial services. This becomes an important attractive factor for foreign firms to enter a certain new market and make use of complementary local finance. In addition, foreign banks and other financial services providers were attracted to these new markets.

#### 3.2 Agglomeration effects and proximity

Economic geographers have for a long time acknowledged that firms in the same industries are drawn to the same location in order to benefit from geographical proximity, which results in positive "agglomeration effects" (Boschma, 2005; Bathelt et al., 2004; Cooke, 2001). Firms' clustering within certain regions causes the formation of pecuniary and technological externalities, which explain the industry localization (Head et al., 1995). The reason for this is that localization of companies provides a pool of workers with common skills range, a certain knowledge base, which enables the firms exchange knowledge and technology, benefiting in such a way from technological spillovers. Therefore, firms tend to choose those locations, where there is a substantial representation of firms from the same industry in order to benefit from the factor endowment.

Agglomeration economies have been widely recognized as one of the major motives for FDI flows (Krugman, 1991; Cantwell and Iammarino, 2000). Positive externalities of agglomeration effects, which are reached by co-location of FDI, are crucial for the productivity of a firm.

Agglomeration economies are associated with the localization economies, or industrial clustering, and urbanization economies. Localization economies arise when a range of firms from the same sector co-locate within one locality. A number of empirical studies have proved the positive impact of location- and industry-bound agglomeration benefits on the extent of intensification of FDI inflows towards certain locations (Head et al., 1995; Majocchi and Presutti, 2009). Marshallian agglomeration externalities based on the specialization paradigm support stated above in the following three ways. Firstly, firms tend to co-locate, which causes agglomeration externalities to emerge, because this allows them to develop specialized labour available at a specific location. Secondly, in such a way firms provide a non-tradable input, which is industry-bound, because they develop common technologies and infrastructure, which leads to economies of scale. Thirdly, sharing ideas and exchange of experience result in intensification of cooperation between economic actors. This leads to the enforcement of agglomeration benefits that become a clear determinant for further FDIs to the location (Bunnell and Coe, 2001). The urbanization economies provide the benefits for companies to be located within one urban location. Larger cities with a certain level of developed infrastructure potentially offer more benefits than smaller cities. Among such advantages urbanization economies offer, the most prominent are proximity to the market, suppliers and customers, labour pool, knowledge and technologies, transport and communication infrastructure.

Boschma (2005) described such type of proximity as cognitive, which has a strong impact on the decision of companies to co-locate. Thus, he defines cognitive proximity as the closeness to the firms from the common knowledge base in order to make the knowledge transfer easier and less costly. Therefore, it could be also assumed that FDIs in transition economies will focus on the regions with a wide presence of the firms of the same industry. When an MNC decides on the location of its subsidiary, it assesses the importance of this location for the further learning and innovation. For this purpose, which drives the development and growth of any business, the availability of common knowledge, social context, organizational networks, common institutional environment and close geographical distance between the other firms of the industry are all of a tremendous importance. Localized learning introduced by Malmberg and Maskell (2006) also clearly states the value of a spatial proximity to different factors important for firms to learn and in such a way develop their competitive advantages. It could be assumed that highly industrialized regions of post-Soviet states will attract those firms that will benefit from already existing infrastructure and intra-sectoral firms' networks of customers and suppliers. With respect to geographical proximity, it refers to physical distance between economic actors (Boschma, 2005). The less this distance is, the better can firms benefit from knowledge externalities. Therefore, it could be assumed that proximity to the EU and thus to the firms from the home country will have a positive impact on the FDI inflows into those regions of post-Soviet states, that are close to the EU border. In this case these regions will benefit from the less socialist industrialization heritage and will attract foreign firms by the opportunities of social fit and easier embeddedness process into the regional economic system.

## 3.3 Resources, markets, and strategic assets

International investment flows are determined by "push" and "pull" factors of a certain locality. Thus, "push" factors are those determinants that influence the outflow of the capital from the home region, whereas "pull" factors are the ones that attract foreign capital into the host region. This chapter will specifically focus on the "pull" factors that have an impact on the decisions of foreign companies to invest in the host region. According to Dunning (1988) FDI is attracted by regions, where it is possible to combine the ownership advantages with the location specific advantages of the host regions by internalization. Foreign companies entering Eastern and Central European states search for inputs they could integrate into their global operations (Majocchi and Strange, 2007).

Resource seeking investors according to Kang and Jiang (2012) try to get control over natural resources as one of the major motivations of FDI activities. Among the resources the host location can offer the most important are supposed to be the natural resources of a country or a region, per capita income, labour market conditions, infrastructure (Barrell and Pain, 1999). The natural resources or raw materials play an important role for the delivery and processing operations of firms. Proximity to the suppliers of specific raw materials is also a prominent issue in choosing locations for foreign investments.

Resmini (2000) suggests that the majority of FDI towards Eastern and Central European countries is determined by the aim of serving the local market. Foreign firms, while co-locating within certain markets, strive to capitalize on the effect of market enlargement and the effect of competition setting. The market enlargement effect refers to the satisfaction of the local demand and the establishment of a new customer base as the primary aim of foreign firms. The competition setting effect is related to the fact that MNCs are trying to outrun their competitors in taking the lead of untapped niches with their products in the new markets. At this point such market specific aspects as income level, size of population, market facilities, consumer characteristics and future growth potential is taken into account by foreign investors when entering new markets. Bevan and Estrin (2004) empirically proved the positive relationship between market size and FDI inflows.

Strategic asset seeking investors are looking for advanced technologies, immobile strategic assets, such as patents, brands, distribution networks and local knowledge (Buckley et al., 2007). These investors choose those locations for their FDI, where they can only develop their competitiveness level with the help of certain assets, available only at a specific location.

Availability of such strategic assets usually results in the formation of certain asset-specific infrastructure around the latter. This leads to the appearance of clusters of firms, customer-supplier networks, embedded in certain regional economic systems by the means of using the same strategic assets, which act as a specific glue connecting business actors around.

## 4. Analytical framework

The assessment of the location choices of MNCs in Ukraine is based on the results of the enterprise survey of 153 foreign-owned firms in Ukraine. The survey focused, among other issues, on location choices and location patterns of FDIs in Ukraine. The firms were asked to rate the importance of different factors, which played a role in their investment decision; to choose the initial aims of investment with respect to serving the local market or just using the market as the resource base for manufacturing facilities with further re-import to their home countries. Moreover, the survey covered questions on institutional environment. The results allow linking the institutional quality at a certain location to the location choice of MNCs in this region.

In order to answer the research questions introduced at the beginning of this chapter, the following three hypotheses are formulated:

H1. Proximity to the EU attracts FDI to the Western region Lviv, whereas proximity to the CIS states as well as to other firms from the same sector are the dominant factors for MNCs to invest in the Eastern region Kharkiv.

The Western region of Ukraine is the EU bordering region and the Eastern region of Ukraine borders Russia. Historically, the Eastern region has been under the influence of communist regime much longer than the Western region. Therefore, it could be assumed that the legacy of communist past is weaker in the West and stronger in the East. Thus, it could be presumed that proximity advantages to the EU border combined with a perspective of easier embeddedness into the less post-communist social context will attract FDI inflows to the Western region of Ukraine. Historically determined strong legacy of socialist industrialization in the Eastern part of the country results in such an important advantage as still existing good infrastructure with a pool of suppliers and customers related to this infrastructure. Therefore, it is hypothesised, that proximity to other firms from the same sectors as well as availability of the physical infrastructure will to a larger extent influence the location of MNCs in the East of Ukraine.

According to the stated above with regard to the socialist industrialization heritage it could be assumed that the Western part of Ukraine is more open in a cognitive sense to new ideas and innovation, since the roots of Soviet regime are not so strong in the West as they are in the East. Thus, the openness of the firms in the EU bordering region to the new coming FDIs will be higher in comparison to the locked in the post-Soviet regime East, where the social context is much more framed by the remains of the communist past.

**H2.** The higher the institutional quality of the region, the more attractive this region is towards incoming FDIs. Therefore, the superior institutional quality of the capital region Kyiv as well as Western region Lviv has a positive impact on the propensity of foreign firms to invest in these regions compared to the Eastern region Kharkiv.

Considering high regional differences with respect to the institutional quality in Ukraine, it could be assumed that the capital region benefits from access to better government support, which presumably leads to better institutional quality in the region. With regard to the Western region Lviv, its institutional environment might win from certain place-dependency of institutions. Since firms investing into the host countries are the main transmitters of institutional rules and patterns of their home countries, Lviv will benefit from locating foreign firms from the EU, which are preembedded into the institutional environments of the latter. While Kharkiv region with mostly firms from the CIS would be much more endowed into post-Soviet institutional regime. As a result, institutional quality of Kharkiv is expected to be lower than that of Lviv. Since it has been established in the previous discussion that institutional quality of a location is an important factor in determining location choices of MNCs, it could be assumed that in the region with high institutional quality it plays an important role in attracting FDIs.

H3. MNCs investing in the capital region of Ukraine are motivated by market seeking and aim at serving the local market, whilst the decision of foreign firms to invest in the Eastern and Western regions of Ukraine is determined by resource seeking aiming at re-import of the manufactured goods to their home countries.

The Western region on Ukraine leads in terms agricultural production and is rich in land resources, whereas the Eastern region still has a strong legacy of socialist industrialization and therefore, possesses a certain physical infrastructure with all the resources needed for such an infrastructure to work. The capital region in Ukraine is the region with the highest purchasing power and concentrated pool of suppliers and customers within a range of market niches. Therefore, it could be assumed that the market will be the main incentive for foreign firms to invest in the capital region, whilst the existing resources will attract foreign investors to invest in the Western and Eastern regions.

Having assumed that FDIs to the capital region are driven by the interest of foreign investors in the market and in the bordering regions these are the resources which play an important role, it is further hypothesised, that those FDIs driven by the market potential will focus on serving the needs of the local market in order to benefit from it. On the other hand, those investments attracted by abundance of resources will presumably aim at using the current location as a resource base for manufacturing purposes and the outputs of the production cycle will be exported.

#### 5. Data and methods

Based on the research methodology introduced in chapter A, the following data and methods are presented further. The descriptive analysis of the distribution of firms by region assessing the determinant factors of their location choice decision as very important, important and unimportant factors was carried out (Annex 4). The descriptive analysis of the assessment of institutional quality parameters as of (very) good, neutral and (very) bad quality by foreign investors in different regions is presented in Annex 5. Crosstabs descriptive analysis was introduced with regard to the differences between three survey regions, namely differences between the capital region Kyiv, the Western close to the EU border region Lviv and the Eastern far from the EU border region Kharkiv.

The multinomial logit regression model was run with the regional dummy as the dependent variable estimating the probability of a foreign firm to enter Kyiv region, Lviv region or Kharkiv region. The results of the multinomial regression are presented in Table D.6. After multicollinearity check the following variables were chosen as control dummies: ownership type, the home country of the investor, sector, location choice determinant factors, initial aim of the investment and institutional quality composite indicator.

The ownership dummy includes brown field and green field investors. The difference between those two types of investors was discussed in chapter C. The choice of the home country of the investor as one of the independent variables aimed at investigation whether the proximity parameter, especially closeness to the EU border in case of the Western Lviv and to the CIS border in case of the Eastern Kharkiv, does play a role in the investment decision of MNCs towards different regions of Ukraine with regard to where these MNCs originate from, namely from EU-15, EU-new member states, the CIS or rest of the world. Introduction of a sector dummy, covering two survey sectors, i.e. food sector and machinery and equipment sector, within the independent variables of the model was intended for checking whether the MNC's choice of a specific region actually depends on a certain industry present in this region. In the Soviet times the Eastern region Kharkiv was known as an industrial engine of the country, whereas the Western Lviv was an agricultural centre. Therefore, regional path-dependent infrastructure might play a role in the attractiveness of different regions towards FDI. In order to determine which factors do attract MNCs to different regions of Ukraine lower costs, market demand, human capital, infrastructure, preferential policies and subsidies, proximity to customers/suppliers, proximity to other firms from the same sector and proximity to the EU border were introduced within the independent variables of the model as dummy variables with two groups of firms, one group assessing the factors as important and another one as unimportant. In such a way only one factor covered in the survey among the determinant factors of FDI location choice decisions, namely proximity to other firms from the same country of origin, was not included in the analysis due to high correlation of the latter with proximity to other firms from the same sector and proximity to the EU border. Controlling for the initial aim of the investment allows observing an impact of the firm's orientation towards re-import or serving the local market on its regional location choice. And the institutional quality composite indicator dummy was included in order to analyse the relationship between the good quality of institutional environment of the region and the location choice of this region as the recipient of foreign investment. The way how the composite indicator of institutional quality was built is mentioned in chapter C.

#### 6. Results

The descriptive analysis of the results in Table D.4 shows that lower costs, market demand, human capital and local knowledge base are the most important factors assessed as such by 54,2%, 60,1% and 37,3% of surveyed firms respectively. With regard to such factor as infrastructure there is an equal amount of firms that assess it as important and not important factor for their location choice decision, namely 37,9% of firms.

**Table D.4**: Distribution of firms assessing factors playing a role in investment decision

Factors	Very I	mportant	Important		Unimportant	
	n	%	n	%	n	%
Lower costs	83	54,2%	45	29,4%	25	16,3%
Market demand	92	60,1%	34	22,2%	27	17,6%
Human capital / knowledge	57	37,3%	56	36,6%	40	26,1%
Infrastructure	37	24,2%	58	37,9%	58	37,9%
Preferential policies / subsidies	16	10,5%	40	26,1%	97	63,4%
Proximity to customers / suppliers	34	22,2%	46	30,1%	73	47,7%
Proximity to other foreign firms from the same country	26	17,0%	44	28,8%	83	54,2%
Proximity to other foreign firms from the						
same sector	25	16,3%	37	24,2%	91	59,5%
Proximity to the EU	36	23,5%	33	21,6%	84	54,9%

Source: Provided by author

Preferential policies and subsidies together with the proximity to other foreign firms from the same sector seem to be the least determining factors in the FDI location choice, since there are 63,4% and 59,5% of foreign firms respectively, which evaluate these factors as unimportant for their decision to locate their subsidiary in the current region. The rest group of factors, such as proximity to customers and suppliers, to other foreign firms from the same country of origin as well as to the EU seem not play a determining role in the decision of foreign firms to enter certain regions of Ukraine due to the larger percentage of interviewed firms assessing the latter as unimportant rather than important factors for their investment location decision (Table D.4).

Although the crosstabs descriptive analysis in Annex 4 shows, that regional differences in terms of assessment of lower costs, market demand, human capital and knowledge are not significant, but still it can be observed that in Kyiv region more than 60% of firms assess lower costs and market demand as very important factors for their investment location decision in the capital, while in the Western bordering region Lviv the amount of firms evaluating these factors as unimportant equals more than 20%, which is even higher than that of the Eastern region Kharkiv, where this figure is around 15% in terms of relative unimportance of the above factors for the foreign firms' location decision in the East of Ukraine. With regard to human capital the regional differences are also not significant, but the majority of survey firms assess human capital and knowledge as an important determining factor in Lviv region, whereas in the capital Kviv region this figure is the lowest and equals only 30% of firms. Infrastructure together with preferential policies and subsidies and proximity to other foreign firms from the same sector are assessed significantly different by the interviewed foreign firms in the three survey regions. Thus, infrastructure is very important for 32% of MNCs investing in Lviv region, while for those in Kharkiv region this figure equals only 24% and the lowest amount of firms assess infrastructure as a very important factor for the investment location choice decision in Kyiv region. The capital comes up to lead though in preferential policies and subsidies, as 17% of firms assess this parameter as very important when investing in Kyiv in comparison to only around 7% of firms in Lviv and Kharkiv regions. Nevertheless, the majority of firms assess preferential government treatment as not a defining factor in the location choice. Lviv region significantly outstrips the capital and the Eastern Kharkiv region with regard to such parameter as proximity to other foreign firms from the same sector with 34% of surveyed firms assessing this factor as very important for their decision to invest in Lviv region compared to only 10% and 5,7% of firms in Kharkiv and Kyiv respectively. The same tendency concerns such factors as proximity to other foreign firms from the same country of origin and proximity to the EU, meaning that in Lviv region the amount of firms assessing these two factors as very important for their location choice decision is significantly higher than in Kyiv and Kharkiv regions. Thus, 30% of foreign firms in Lviv assess proximity to other foreign firms from the same home country as very important parameter in their decision to invest in Lviv, whereas in Kyiv and Kharkiv regions this is only around 13% and 8% of firms respectively. Proximity to the EU border is assessed as very important by the largest amount of firms, namely more than 55%, regarding all other factors playing a role in the investment decision in Lviv.

With regard to the initial aim of investment in Table D.5 it can be observed that the majority of firms in all three survey regions choose serving the local market over re-importing of the manufactured products as an initial aim of their investment.

**Table D.5**: Distribution of firms with regard to the initial aim of investment

Regions	Re-import	Serve the Ukrainian market	Sig.
Kyiv region	44,2%	55,8%	
Lviv region	44,0%	56,0%	n.s.
Kharkiv region	32,0%	68,0%	

Source: Provided by author

From the descriptive analysis of the perceptions of foreign investors towards institutional quality parameters in Annex 5 it can be observed that there are significant regional differences. Thus, around 60% of firms in Kyiv assess enforceability of legislation as of (very) good quality while this figure equals only around 30% and 20% in Lviv and Kharkiv regions respectively. The same trend holds true with such parameters as physical and intellectual property rights protection, and reliability of oral contracts. The most dramatic differences could be observed with regard to central and regional government support. While around half of the surveyed foreign firms in Kyiv assessed central government support as of (very) good quality in the region, for Kharkiv and Lviv regions this figure stood only for 8% and 20% respectively. With regard to the regional government support in Kharkiv region only 18% of foreign firms rank this parameter as of (very) good quality, compared to around 49% and 50% figure in Lviv and Kyiv respectively.

The multinomial logit regression in Table D.6 presents the assessment of the impact of the selected independent variables on the probabilities of MNCs to invest in different three survey regions, comparing the bordering Lviv and Kharkiv regions to the capital Kyiv region and the Western region to the Eastern region. Thus, the model shows that green field FDI firms are more likely to invest in Kyiv region rather than in Lviv region in comparison to brown field FDI firms. For those foreign firms, for which market demand and preferential policies and subsidies play determining role in their investment location choice decision, the probability of entering the capital rather than bordering Lviv is higher. However, foreign firms are more likely to choose Lviv for the location of their FDIs if they are looking for human capital and proximity to the EU border. With regard to Kharkiv region in comparison to the capital, brown field MNCs originating from the CIS region are more likely to invest in Kharkiv rather than in the capital in comparison to green field FDI firms coming from the EU and the rest of the world. Moreover, firms from machinery and equipment sector in comparison to those from food and beverages sector are also more likely to choose Kharkiv rather than the capital for location of their investments. Foreign firms assessing market demand as an important factor for their location choice decision are more likely to invest Kyiv region rather than Kharkiv. Those firms aiming at serving the local market, on the other hand, more probably will enter Kharkiv rather than the capital. Nevertheless, Kyiv region rather than Kharkiv is more likely to attract foreign investors assessing local institutional quality as good.

Concerning the comparison of two bordering regions, namely the Eastern Kharkiv region versus the Western Lviv region, foreign firms from the EU-15 as well as from the EU-new member states are highly likely to choose Lviv rather than Kharkiv locating their investments. The same holds true for the MNCs for which proximity to the EU border is of a determining importance in their location choice decision. At the same time, MNCs with initial aim of serving the local Ukrainian market rather than re-import of the produced goods from Ukraine to their home countries are more likely to choose Kharkiv region over Lviv region when going abroad with their investments. With regard to the role of local institutional quality, FDIs are more likely to choose Lviv over Kharkiv for locating their investments when assessing local institutional quality as good.

Table D.6: Multinomial logit regression model on the location choices of FDIs

	Lviv region (Kyiv region is a reference category)	Kharkiv region (Kyiv region is a reference category)	Kharkiv region (Lviv region is a reference category)
Ownership dummies (Brown field FDIs as a reference category )			
Green field FDIs	-1,688***	-2,317***	-,629
Investor origin dummy (CIS as a reference category )			
EU-15	,804	-1,441*	-2,245***
EU-new member states	,753	-2,632***	-3,385***
Rest of the world	-1,054	-1,660**	-,606
Sector dummy (Machinery & equipment sector as a reference category )			
Food & beverages sector	-,538	-1,132*	-,594
Determinants of location choices dummies			
Lower costs	-,615	-,174	,441
Market demand	-1,665*	-1,521*	,144
Human capital	1,263*	,402	-,861
Infrastructure	-,340	-,047	,294
Preferential policies/subsidies	-1,845***	-,711	1,134
Proximity to customers/suppliers	,111	-,440	-,550
Proximity to other firms from the same sector	,274	,782	,507
Proximity to the EU border	1,437**	-,625	-2,061**
Initial aim dummy (Export from Ukraine as a reference category)			
Serve the local Ukrainian market	,102	1,609***	1,507**
Institutional quality dummy	-,935	-2,139***	-1,204*
Model fit			
Sig			,000
Cox and Snell Pseudo R-Square			,579
Nagelkerke Pseudo R-Square			,651
McFadden Pseudo R-Square			,393
N			149

Source: Provided by author Note: \*Significant at the 0.10 level; \*\*Significant at the 0.01 level

#### 7. Discussion

From the results described above it could be observed that proximity and agglomeration effects play an important role in attracting foreign firms to the Western Lviv and Eastern Kharkiv, which allows accepting the first hypothesis stated earlier:

**H1.** Proximity to the EU attracts FDI to the Western region Lviv, whereas proximity to the CIS states as well as to other firms from the same sector are the dominant factors for MNCs to invest in the Eastern region Kharkiv.

Thus, Lviv region attracts more foreign firms by its proximity to the EU border. Moreover, Lviv region was less affected by the Soviet communist regime due to not being the target region for industrialisation purposes during the Soviet times. Thus, it appears to be at a more advantageous position now in terms of being more open to new market trends and cross-border knowledge spillovers being close to the EU border. This leads to the formation of a concentrated labour force pool with certain range of skills.

Foreign firms in Kharkiv turn out to be much more local market oriented compared to the ones in Kyiv region and in Lviv. In case of the Eastern, close to the CIS border, region with a big share of FDIs originating from the post-Soviet states, the remains of an old system of the planned economy still exists as the remains of the communist regime. Higher probability of firms from the machinery and equipment sector rather than food and beverages sector to invest in Kharkiv rather than Lviv supports the previous assumption, that since the Eastern part of Ukraine was historically serving as the engine of the Soviet "industrial machine", the old infrastructure with the existing networks of sector-specific suppliers and customers, makes Kharkiv region a good platform with a large market potential to be served.

Institutional quality appears also to play an important role in attraction of FDIs to different regions of Ukraine. National governance and institutions in Ukraine are taken in focus when assessing the ease of doing business in the country (World Bank, 2013c). Thus, in Table D.3 it can be observed that Ukraine is getting substantially better with regard to its ranking on starting a business, dealing with construction permits, registration of property, getting a credit and enforcing contracts. Moreover, Ukraine scores better than the average rank for the Eastern Europe and Central Asia region on all of the latter parameters except for registration of property, on which it is still far behind the region's average. This to a big extent is due to implementation of efficient and relevant policies in the respective fields of governance. According to the World Bank (2013c) Ukraine has managed to perform a number of reforms of its banking and financial sector, registration of new business entities, registration of property and ownership rights, simplifying the process of taxation, regulation of import and export policies at the customs. Nevertheless, the state still holds back on the score of protecting investors, which includes such parameters as extent of

disclosure index, extent of director liability index, ease of shareholder suits index and strength of investor protection index. Ukraine's rank within the latter parameter gets worse year after year, which could also indicate that the roots of the problems are to be sought not only at the national level, but also the sub-national level where the institutional transformation is very place-dependent.

Thus, the descriptive analysis of different institutional parameters in Annex 5 clearly shows that regional differences in institutional quality exist in Ukraine and there is a pattern of certain institutional weaknesses in the East of the country, while the capital region and the Western part of the state are institutionally better off. As a result, the second hypothesis is also accepted:

**H2.** The higher the institutional quality of the region, the more attractive this region is towards incoming FDIs. Therefore, the superior institutional quality of the capital region Kyiv as well as Western region Lviv has a positive impact on the propensity of foreign firms to invest in these regions compared to the Eastern region Kharkiv.

From the descriptive results it can be seen that foreign firms in Kyiv and Lviv regions assess all the institutional parameters much better than those located in Kharkiv. Special attention should be paid to enforceability of legislation, intellectual property rights protection and government support. Reliability of the legal system expressed through the enforceability of laws and regulations seems to be only present in the capital. Bordering regions in this concern having no access to the real mechanism of legal enforcement distract foreign investors. Intellectual property rights seem to be least protected in the Western Lviv region. Since Lviv hosts mostly FDIs from the neighboring EU, low assessment of the quality of local intellectual property rights could indicate a bride gap between the European standards foreign investors are used to and the actual norms present in the Western part of Ukraine. This should serve as an important highlight for the development of specific policy implications aimed at ensuring harmonization of the Ukrainian intellectual property rights protection legislation with that of the EU and strengthening of investors' protection from this perspective. Central government support mostly directed to the capital also indicates that there is a need for the national government to develop reliable national level policies as well as mechanisms of control in order to support bordering regions. Regional government support seems also to be low in Khrakiv. Since the East of the state appears to be locked-in within the legacy of Soviet institutional past, this clearly indicates that Kharkiv deals with a very weak local institutional framework.

Logit regression results also show that the capital region Kyiv as well as (to a lesser extent) the Western region Lviv attract firms, which assess the quality of local institutional environment as good. Moreover, for firms locating their investments in Kyiv preferential treatment of the government turns out to be an essential pre-condition. Therefore, the previous assumption on the

capital region serving as the target one for the government to create a business friendly institutional environment in order to attract investors to the main commercial and industrial hub of the state, also holds true.

Multinomial logit regression analysis on the motivations, aims and specific factors attracting FDIs to different regions show, that the capital region investors seem not to be aiming at serving the local market, which is also supported by very low significance of market demand as a determinant for a location choice decision of FDIs to invest in Kyiv. This is the bordering region Kharkiv where the aim of serving the local market is more obvious. Moreover, it turns out that investors in the bordering regions as well as in the capital are strategic asset seekers. Thus, the third hypothesis is rejected:

H3. MNCs investing in the capital region of Ukraine are motivated by market seeking and aim at serving the local market, whilst the decision of foreign firms to invest in the Eastern and Western regions of Ukraine is determined by resource seeking aiming at re-import of the manufactured goods to their home countries.

The results of the regression analysis with regard to the higher probability of green field investments in Kyiv region compared to brown field FDIs in the bordering regions lead to the line of thinking that the capital does attract new foreign firms by better access to the needed resources, business information and the government, which play the role of strategic assets of the capital considering uneven regional development of the transition states. On the other hand, when it comes to the aim of investment, only foreign firms in Kharkiv tend to serve the local market, while those of the capital and of the Western part export the manufactured goods. This seems an obvious outcome when considering machinery & equipment sector of survey firms. While Kharkiv region still has a strong legacy of socialist industrialization with the existing infrastructure in heavy industry, it possesses certain economic potential for growing market demand in the manufactured goods. Concerning food and beverages sector firms in the case of Lviv, geographic proximity might play an important role why foreign investors tend to export manufactured products rather than serve the local market.

Lviv region attracts more foreign firms by its human capital as an important strategic asset in making a location choice decision. This could be explained by the fact that firms coming from the EU to Lviv region tend to create their own clusters of firms, clusters-specific knowledge pools and networks, which help to decrease certain transaction costs and therefore support the subsidiary's embeddedness process within the new regional economic system. Clusterization of firms from the same sector in Kharkiv also might provide a range of essential resources targeted by foreign investors in this region. Among them physical resources of the existing infrastructure could potentially play the dominant role.

## 8. Summary

In this chapter special attention is paid to the acknowledgement of the importance of FDI inflows into a transition economy. This chapter identifies determinants of location choices of FDIs in Ukraine as one of the post-Soviet transformational states, based on empirical evidence of an enterprise survey of 153 subsidiaries of MNCs, carried out in three regions in Ukraine, the capital region Kyiv and two bordering regions Lviv, close to the EU border Western region, and Kharkiv, close to the CIS border Eastern region. It contributes to the provision of a thorough theoretical discussion on location choices of FDIs based on the revised OLI paradigm with an integrated institutional component and provides a conceptual framework with (inter)national and motivation-specific sub-national level determinants of the location choice decisions of foreign investors. The empirical results of the multinomial regression analysis cover the assessment of the traditional economic factors that attract FDI to certain localities within transition economies, specifically Ukraine and institutional quality parameters of the target regions that attract MNCs to the host regional markets.

The results of the empirical analysis show that better access to resources and higher institutional quality of the capital will attract green field investors. Investors aiming at serving the local market rather re-importing of the manufactured goods will most probably invest in Kharkiv. Close to the EU border Lviv region except for having an absolute advantage of being proximate to the EU, pulls in investors due to its human capital concentration. These findings go in line with an assumption of the less post-Soviet legitimacy of the Western region Lviv, whereas in the close to the CIS border region Kharkiv the old heavy industrial infrastructure and overall economic regime based on the networks of firms originating from the Soviet past are still present. This leads to attraction of foreign investments coming from the CIS to serve the local market with preestablished customer-supplier networks. Overall better institutional quality of the capital and (to a lesser extent) Lviv regions results in attraction to the latter of FDI firms assessing institutional environment at the current locations as of good quality.

## CHAPTER E. IMPACTING INNOVATION BEHAVIOUR OF FOREIGN AND DOMESTIC FIRMS: THE CASE OF UKRAINE

The aim of this chapter is to investigate the factors impacting innovation performance of foreign-owned and domestic firms in three regions of Ukraine. Special attention is laid on the inter-firm cooperation between domestic and foreign-owned firms, their absorptive capacity and the role of the local institutional environment in selected regions of Ukraine, namely close to the Western border Lviv region, close to the Eastern border Kharkiv region and the capital region Kyiv. Foreign firms are the subsidiaries of multinational enterprises (MNEs) located in the target regions of Ukraine. An enterprise survey of 305 domestic and 153 foreign firms within two sectors, i.e. machinery and equipment sector and food and beverages sector, was conducted in these regions. This chapter empirically analyses the primary data of the enterprise survey, with the focus on the assessment of the innovative performance of survey firms. The impact of such factors as absorptive capacity of survey firms, the way foreign and domestic firms cooperate and their perception towards local institutional quality on the innovation behaviour of firms is analysed. This chapter introduces a thorough conceptual framework together with a detailed discussion of the empirical results, followed up by some policy implications.

#### 1. Introduction

Innovation performance of firms within certain regional and national economic systems serves as the means of economic progress and efficient development of entrepreneurship around the world (Cooke, 2001). However, innovative activities are not evenly distributed across the globe. As Asheim and Gertler (2005) state the higher knowledge intensity of an industry leads to the higher clusterization of the latter. With respect to such a Soviet economy as Ukraine which is in its transition from the planned economic system, innovation capabilities of firms are viewed through the realm of inconsistent rather than incremental catch-up process (Kravtsova and Rodosevic, 2012). The authors state, that taking into accout the transition process of Eastern European states, micro-economic innovations are based primarily on the changing of initial conditions, inherited socialist past and structural reforms. As a consequence the formation of industry clusters might occur due to geographical and cognitive proximity of firms within the same sector. In these industrial clusters there is a constant exchange of common knowledge, technology and other important intangible as well as tangible assets between the firms. Porter (1998) described such clusters as the geographic concentration of specialized firms, suppliers and service providers together with associated institutions.

Inter-firm cooperation between firms in clusters is influenced by the institutional environment, which becomes especially prominent when considering cooperation between foreign and domestic firms in different regions of a certain state. At the same time the degree of effectiveness of such inter-firm collaboration depends on the absorptive capacity of the partners involved, namely whether the firms are able to benefit from the exchange of knowledge, ideas and experience. Thus, in this chapter the aim is to focus on the role of absorptive capacity, inter-firm cooperation between the subsidiaries of MNCs and domestic firms, located in Ukraine, and institutional environment for the propensity of these firms to innovate with the purpose of further identification of the driving forces of innovation performance of firms within the realm of a transition economy. Moreover, the innovation performance of firms is investigated in different regions and sectors. The empirical analysis of the enterprise survey of 305 domestic and 153 foreign firms, carried out in Ukraine, covers the investigation of innovation performance of foreign and local firms within two sectors, i.e. food and beverages sector and machinery and equipment sector, and three regions, i.e. close to the EU border Lviv region, far from the EU border and close to the Soviet states border Kharkiv region and the capital region Kyiv. Thus, this chapter introduces the following research questions:

- 1. Are there regional, ownership and sectoral differences in the way firms innovate?
- 2. What determines the innovation behaviour of foreign-owned and domestic firms?
- 3. How does local institutional quality impact innovative activities of firms?

This chapter has the following structure: section 2 deals with the theoretical background and conceptual framework; section 3 provides the analytical framework with the main hypotheses of the empirical research; section 4 covers data and methods; section 5 presents the results of the empirical analysis of the enterprise survey in Ukraine; section 6 follows with the discussion of the results; and section 7 summarizes this chapter introducing policy implications.

# 2. Factors influencing the innovation performance of foreign-owned and domestic firms

## 2.1 Difference in innovation behaviour of firms by innovation form and sector

In this chapter three forms of innovation are introduced: product innovation, process innovation, marketing and organizational innovation. These innovation forms are defined according to the Oslo manual (OECD, 2005). The manual states that product innovations represent a significant change of the characteristics of a product or process or an introduction of an absolutely new good or service. Process innovation represents significant changes in the production or delivery methods. Organizational innovation leads to the implementation of new organizational practices: business methods, workplace organization, and firm's external relations.

Marketing innovation involves realization of new marketing methods, such as new product designs, new packaging, new ways of product placement and promotion, pricing of goods and services.

The innovation activities of firms is analysed within a regional perspective, since the enterprise survey was carried out in Lviv region, which is an agricultural centre of the country, in Kharkiv region, which is an industrial hub, and Kyiv the capital. Therefore, while food and beverages sector is prominent for agricultural Lviv region, machinery and equipment sector is the case for Kharkiv. Innovation in different sectors bears certain sectoral differences. While machinery and equipment sector is often classified as a high-tech sector, product innovations play a very important role. In contrast, the food and beverages sector is often seen as a low-tech industry according to Fagerberg et al. (2005), in which process and organizational innovations predominate. As a consequence, determining factors for innovation processes might be influenced by these sectoral differences.

In low-tech industries formal R&D capacities, internal education of the employees through the provision of trainings, as well as formal science and technology exchange might play a lesser role than in high-tech industries (Fagerberg et al., 2005). Within low-tech sectors technologies are developed by specialized machinery firms. Thus, food processing firms rarely develop formal innovation capacities by themselves, rather they patent less capital- and technology-intense innovations. Nevertheless, absorptive capacity still plays an important role for low-tech innovations, as the production technologies have to be used in an efficient manner. Absorptive capacity is defined by Cohen and Levinthal (1990, p. 128) as the "the ability of a firm to recognize the value of new, external information, assimilate it, and apply it to commercial ends". Thus, in order to grasp the absorptive capacity of firms empirically, the following firm characteristics are set into focus: size of the firm, share of employees with higher education, share of R&D related staff, share of foreign employees with specific tacit knowledge, share of sales spent on R&D and education and development of personnel. Absorptive capacity plays a very important role for different forms of innovation. However, although absorptive capacity is an important factor for successful process as well marketing and organizational innovations, firms in low-tech sectors tend to invest in their human capital development much less than those in hightech sectors. Thus, in machinery and equipment sector as a high-tech industry, by contrast, the role of product innovation is much more important for economic growth in this sector. Development of new products is of central importance for commercial success in a high-tech industry. Therefore, for firms in such industries human capital and their absorptive capacities are crucial. Firms in high-tech sectors might especially try to attract more foreign and highly skilled staff into their R&D departments, raising their investments in research-related and training processes.

## 2.2 Inter-firm cooperation and innovation

Spatial concentration of collaborating firms sharing a common local region-specific institutional environment is a prerequisite of interactive learning processes and further technological and organizational upgrading leading to innovation performance in the long run. In such conditions the regional economic system is set up with shared attitudes, values, norms, routines and expectations, namely certain local business culture, that impacts the practices of firms in the region. Institutionally established local business culture fosters local firms to integrate within certain clusters, which encourages the development of a particular knowledge network (Bathelt et al., 2004). As a result 'communities of practice' are established. These represent concentration of attached business agents interacting on a daily basis based on the same expertise, a common set of technological knowledge and similar experience. Firms' innovation performance requires collaboration between the actors within certain knowledge networks, where the exchange of technology, ideas and experience results in effective knowledge spillovers. Here is where the role of tacit knowledge becomes prominent, since this kind of knowledge is only transferrable through collective interactions, interpersonal information exchange and inter-organizational collaboration (Lu et al., 2008).

This dissertation focuses on a specific form of firm's collaboration, which leads to an exchange of knowledge, technology and experience, namely cooperation of foreign and domestic firms within the framework of the host local regional economic system. The role of foreign direct investment (FDI) per se on the economy of the country, where this investment is located, has been acknowledged in the economic literature quite extensively. Special attention has been devoted to the transition economies, since economic progress of emerging markets is supposed to be directly influenced by the inflow of foreign firms, which introduce specific knowledge, technology, highly skilled human capital and resources into the latter. Transition from communist planned system to capitalist economy and the integration of Central and Eastern European countries into the world global arena proceeded through international trade and capital flows, which encouraged growth and innovation, and facilitated the restructuring of firms and sectors (Bevan and Estrin, 2004). Foreign-owned firms are thought to possess higher labour productivity, innovation potential, supplier and customer networks than incumbent firms when entering new markets. As a result FDI flows from developed countries towards emerging economies are expected to become important transmitters of knowledge, technology and other economic resources serving as a prerequisite for substantial economic growth and innovation progress (Frenkel et al., 2004).

Subsidiaries of foreign firms in the host economies are supposed to have an impact on the labour productivity, innovativeness and economic growth of local firms (Garcia et al., 2013). Impact of FDI on innovation of local firms is viewed by the authors from two perspectives. On the one hand, foreign firms cooperating with domestic partners enable knowledge spillovers to take place or they make the domestic firms become more competitive in order to be able to compete with foreign entrants. On the other hand, FDI could also suppress innovation propensity of domestic firms if the increased competition from foreign entrants crowds out local entrepreneurs being not able to withstand such a competition. The findings demonstrate that both perspectives make sense, since FDI may both positively and adversely negatively affect the productivity and innovative potential of local firms. Garcia et al. (2013) state that foreign investments introduce a range of positive externalities, such as: incentives for domestic firms to improve in order to compete with stronger foreign entrants, increased demand and supply leverage, which leads to the increased scale economies and decreased transaction costs, opportunities for local firms to use knowledge transfer and state-of-the-art technologies for their own benefit. Subsidiaries of foreign firms are the direct transmitters of intangible assets from the parent company to the host economies. The authors state, that local firms may learn from foreign partners in different ways. These might include "by observing and imitating foreign entrants, through formal and informal interactions with those competitors, and through intelligence gathering from third-parties that interact regularly with the foreign entrants" (Garcia et al. 2013, p. 232).

In this chapter the results of the enterprise survey, which covered both foreign and domestic firms within their inter-firm cooperation dynamics, are analysed. These dynamics are covered in the survey through the customer-supplier relations, which describe inter-firm cooperation and knowledge exchange between foreign and domestic firms. The intensity of inter-firm cooperation might also impact the positive externalities from the cooperation between foreign and domestic firms. Such intensity could be affected by the geographical location of the involved parties. In the capital region, for example, which serves as an industrial and commercial hub of any state, inter-firm cooperation is supposed to be much higher than in the bordering or periphery regions, where even the total number of potential counterparts might be limited due to low potential of a host region.

Technological change, which occurred in the transition period, was followed mainly by the innovation output, which did not correspond to the market demand (Kravtsova and Rodosevic, 2012). R&D departments were occupied by specialised staff, who did not receive target investment and education for the development of the innovation behaviour of a firm. This did not lead to an actual increase in real innovative output of firms. Innovation was organized top-down,

and R&D was in the most cases disconnected from the actual manufacturing centres. The result of such strategy of the Soviet economic development was that innovation was planned rather than initiated by real market needs. Thus, in such an industrialized region as Kharkiv, located close to the Soviet states, where heavy industry was the main driver of economic growth, the remains of old system in the form of R&D departments of firms with R&D staff may not lead now to an expected increase of innovation output. In fact, Blalock and Simon (2009) find that firms with stronger production capabilities benefit less from cooperation with foreign entrants than the rest. Absorptive capacity of such firms from the Soviet past is lowered simply by the fact that availability of R&D personnel, as well employees with higher education, does not lead to the increase of spending on R&D and provision of accurate training of this personnel adapting the firm's knowledge base to the realm of the market demand. Such firms with low absorptive capacity are unable to benefit from the positive externalities of inter-firm cooperation. This results in the reduced profitability of firms, which leads to decreased propensity of the latter to innovate, growth of less innovative market segments, lower probability of attraction of highly qualified human capital as an important determinant of innovative performance of a firm.

On the other hand, firms with higher absorptive capacity benefit more from inter-firm collaboration. Larger firms, with more highly educated staff, efficient R&D departments together with sufficient spending on R&D could all increase the absorptive capacity of a firm provided that an enterprise invests money into the development and knowledge management of its R&D employees. In such a way, interdependence between the positive impact of FDI on the innovation output of local firms and the absorptive capacity of the latter becomes an important issue especially for transition economies. When the technology gap between a local supplier and a foreign subsidiary is too high, the latter might either not be interested to upstream its local partner or will be likely to introduce less sophisticated techniques. This might hinder innovation process in the long run. Firms with better absorptive capacity will be better able to assess the benefits of the new knowledge and technologies foreign firms bring, especially in case that there are foreign employees among the personnel of a domestic firm. Thus, foreign employees become the main transmitters of tacit knowledge to local counterparts. Absorptive capacity of firms also enables firms to assimilate acquired intangible assets from the subsidiaries of MNEs and invest and exploit those in their innovative capacities.

## 2.3 Institutions and innovation

According to North (1991, p. 97) "institutions are humanly devised constraints that structure political, economic and social interaction". Therefore, institutions are identified as formal and informal political and economic regulations and norms, contracts and laws, which impact the way business agents act. In the enterprise survey the firms were asked to indicate their perceptions of

the quality of the following formal and informal aspects of institutional environment: enforceability of legislation and regulation policies, physical and intellectual property rights protection, reliability of oral contracts and agreements, central and regional government support. All these aspects of institutional environment introduce certain rules of the game in the society. They serve as constraints and opportunities shaping human interactions, cooperation of firms and organizations. In field of economic and business interactions, institutions represent a set of rules that frame economic, social and political interactions between individuals and social groups, which impacts economic development and progress (Thornton et al, 2011).

Malmberg and Maskell (2006) state that institutional setup is one of the most important determinants that matter, when firms choose where to develop their competitive advantages with regard to their specific economic activity. One of the possible reasons to that is when innovation abroad becomes a strategic focus of an MNE as the means of the development of its competitive advantage it becomes quite vulnerable to the institutional regulation. Thus, foreign firms get attracted to those locations, where institutional environments enable and facilitate innovation activities. The same reasoning could be applied to domestic firms. Asheim and Gertler (2005) indicate that local institutional environment for domestic firms is very important when they focus on innovation as the means of increasing their competitive status with regard to foreign firms. Innovation in such a case must be based on interactions and knowledge flows between economic entities, such as customers, suppliers and competitors. The authors argue, that the transmission of tacit knowledge requires face-to-face communication and cooperation between partners who already share the same 'codes' of communication, rules and norms, fostered by a shared institutional environment. Common institutional environment becomes a one of a kind regional asset, which fosters and promotes the development of local advantage. Maskell and Malmberg (1999, p. 181) claim: "it is the region's distinct institutional endowment that embeds knowledge and allows for knowledge creation which - through interaction with available physical and human resources - constitutes its capabilities and enhances or abates the competitiveness of the firms in the region".

Adaptation to local institutional environment requires from the subsidiaries of MNEs to share the same norms, habits, common practices and rules of a society as domestic firms share. This leads to sharing the same scope of regulation and degrees of freedom at the same time by both types of firms. Waarden (2001) investigated in this respect the direct and indirect impact of formal institutions, such as laws and legislation, on innovation. The concept of this chapter was based on the notion that the main problem innovation faces is risk and uncertainty which raise the transaction costs. While laws and legislation aim at reducing such risks and uncertainty, local institutional frameworks differ in their ability to do so. There is a common belief that strict

regulation, which is supposed to be a good quality of an institutional environment, hinders innovation, since firms need freedom to innovate (Waarden, 2001). Nevertheless, the results of his research prove that a balance should be sought in order to regulate innovation efficiently. Therefore, institutions should also be developed as flexible mechanisms, able to adapt to and enforce the needed economic activities. Thus, rules, norms, conventions and habits reduce risk and uncertainty to the point when business actors know what to expect from the partners in the game, which is clearly "institutionalized". In this respect path- and place-dependency of institutions play a very important role especially with regard to such a Soviet economy as Ukraine, where post-socialist legacy leads to "local institutional thickness". Martin (2008) defines it with the help of four elements: strong presence of institutions such as local authorities, chambers, labour unions, research centres; high level of interaction between these institutions; availability of well-defined structures aimed at minimization of inter-institutional conflict; and collective integration into regional socioeconomic development. For Ukraine as a transition economy with Soviet past such institutional thickness could mean that firms get locked in within the systems of old regime and are neither interested, nor motivated to introduce any change due to benefitting from old, but somewhat functioning business regime. Thus, especially bordering regions, in the case of Kharkiv and Lviv, standing not in the priority list for introduction systematic institutional change in comparison to the capital, might suffer from being locked in within thick institutional frameworks hindering innovation propensity of their firms.

### 2.4 Conceptual framework

The conceptual framework of this chapter is twofold: innovation in low-tech industries, namely in the food and beverages sector, and innovation in high-tech industries, namely machinery and equipment sector. These represent the two circles of the conceptual framework, each comprising firstly, foreign and domestic firms as the partners collaborating within innovation process stating inter-firm cooperation; and secondly, absorptive capacity as an important element of such cooperation. Both circles cross within the field of common local institutional environment, which affects innovation performance of firms in both industries (Figure E.1).

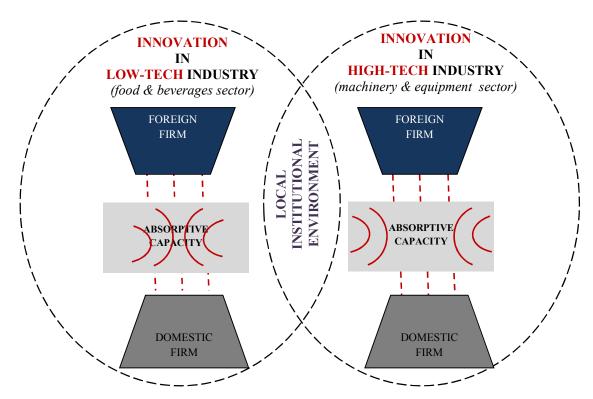


Figure E.1: Conceptual framework on innovation behaviour of firms

Source: Provided by author

Innovation output of firms depends on the quality of inter-firm cooperation expressed through red dotted lines connecting the foreign firm quadrant with the domestic firm quadrant in both circles in Figure E.1. Such cooperation intends to lead to knowledge and technology spillovers based on the exchange of staff, experience, ideas, blueprints and manuals, product samples and production equipment. The quality of these spillovers might be determined by absorptive capacity of firms. The higher the absorptive capacity, the broader exchange will be reached, which will increase the production capacity of the partners, upgrade their technological and organizational capabilities and enforce better innovation capacity. In this conceptual framework absorptive capacity of firms could be described as a certain "bottle-neck" of innovation. The wider the "bottle-neck", the more knowledge and technology inflows will enrich the recipient partner. In low-tech industries firms might invest less in the development of their absorptive capacity compared to their counterparts in high-tech industries, where firms tend to develop their human capital and raise their absorptive capacity much more intensively. Therefore, in the low-tech circle absorptive capacity is narrower than in the high-tech circle in Figure E.1. However, absorptive capacity is highly important for both low- and high-tech sectors. In low-tech industries, it is prominent for process, marketing and organizational innovation forms, while in high-tech industries it is more important for product innovation.

All these processes, however, do not happen autonomously. Subsidiaries of MNEs cooperate with domestic firms when entering a new regional economic system under certain rules. Their actions are regulated and constrained by laws and norms imposed by certain institutional environment. It impacts directly the way how firms collaborate and indirectly how and if they innovate. These are the local rules of the game that frame regional economic systems enabling them to function properly. Nevertheless, institutional environment has to be flexible enough, so that firms do not get locked-in and become passive in their innovation pursuits. This highly depends on the place-dependency of institutions, which means that the institutional effect on economic operations in different regions of one state may be different due the various quality levels of institutional frameworks at the regional level. This is especially relevant for economies in transition, especially Ukraine as one of the post-Soviet states. The basic elements of a planned economy in the Soviet Union included uneven regional division of states, since there were economically strategic and non-strategic regions. Thus, those regions, which were producing much of heavy industry output, were so-called strategic centres, because this industry was the locomotive of the whole Soviet Union. This meant in its turn that the government was interested to support strategic assets by the means of provision of financial support for the development of a technological base at these specific strategic locations. This led to the establishment of industrial zones in Ukraine. In the Eastern part of the country close to other Soviet Union member states, the typical socialist heavy industrialization took place. Therefore this region was historically viewed as the source of economic wealth of the whole country. As a result the existing institutional environment at these industrial zones may differ from the institutional environment in other, "less strategic", parts of the state. Thus, the Western region of Ukraine received much less financial and technological support from the government of the Soviet Union and had much less room for innovation, since it was an agricultural centre and agriculture was not a priority segment in the planned economy. However, these regions were heavily depending on subsidies and money transfer from the central state level.

The same situation concerns the difference in institutional endowments between the capital region and the rest of the state in case of emerging markets. Capital region in a transition economy is the commercial, industrial and social hub of the state (Heidenreich, 2003). Moreover, it serves as a centre of education and research. Therefore, the government is interested to support such an urban agglomeration with better infrastructure and attractive innovation potential, contributing in such a way to the development of a higher quality of institutional environment (Fedorov, 2002). Uneven regional development as a specific feature of transition economies with better developed capital regions and lagging behind peripheries is also the outcome of preferential government treatment in a form of better financial support, attractive conditions for foreign

capital and better business opportunities (Heidenreich, 2003). Such opportunities in their turn also attract a better pool of qualified human capital, which serves as an important driver of innovation.

### 3. Analytical framework

The empirical analysis of the main determinant factors of the innovation performance of firms is centred on the results of the enterprise survey, carried out in three regions of Ukraine within two different sectors. The survey firms among firm-specific questions, covering the absorptive capacity aspects, were asked whether they innovate in different innovation forms, whether they cooperate with each other and what their perceptions towards quality of formal and informal institutions in their local regional economic systems are. The questionnaire of the survey was developed with the aim to answer the research questions introduced at the beginning of this chapter, on the basis of which the following hypotheses were formulated.

H 1. Firms in the capital region Kyiv are more innovative than firms in the bordering regions.

The reasoning for the first hypothesis is derived from the line of argument that a capital region in any country serves as an economic and commercial hub with high concentration of educational and research centres. The bordering or periphery regions, by contrast, lack attractive market opportunities, institutional environment regulations that pull enterprises to these regions on the first place and create good conditions for their innovation progress in the long run. Therefore, the capital attracts best human capital with a wide range of skills, encourages the emergence of technology-related firms, which leads to a much higher competition than in the bordering regions. Within the realm of a fierce competition innovation becomes one of the instruments for a firm to survive. Moreover, high intensity of cooperation between firms as a prerequisite of their innovative activities is only possible in the areas, where firstly, the critical mass of firms is available, and secondly, the absorptive capacity of partners is enough to cooperate. Therefore, it could be expected that inter-firm cooperation would play a greater role due to the fact, that firms coming to the capital are interested to develop their capabilities in the most efficient ways and therefore effective partnerships might become an important factor impacting innovativeness of firms in the capital.

With regard to the bordering regions, Kharkiv region, by contrast, is located close to the Soviet states and might still have the communist legacy present due to being an important industrial location for the planned economy in the Soviet times. This led to machinery and equipment sector being the driver of the local economic system in Kharkiv. At the same time firms in Kharkiv might be still locked in the path-dependent economic environment affected by the remains of the communist economy and therefore, their absorptive capacity might be not high

enough to innovate effectively and introduce new products. On the other hand, firms in the food and beverages sector, mostly located in Lviv, might also not have high absorptive capacity to innovate. Thus, it could be assumed that firms in the capital region are more innovative than those of the bordering regions.

H 2. Innovative outcome of foreign-owned firms located in Ukraine is higher than that of their domestic counterparts.

Subsidiaries of MNEs play an important role for economic growth and development of the host states and regions. The reason to that lies in the fact that usually foreign firms bring with them certain valuable tacit knowledge other way unavailable in the local market. This is especially the case for such a transition economy as Ukraine, where FDIs serve as one of the main drivers of economic progress. Domestic firms in transition states might get so locked in within the existing economic systems, that there are no interested parties to introduce anything new, or they are at the stage of growing their capabilities in an emerging economy Therefore, in transition economies domestic business agents are less competitive than the foreign new comers, which allows to assume that the innovation propensity of foreign-owned firms will be higher than that of domestic enterprises.

H 3. Firms in food and beverages sector are more innovative when it comes to process, marketing and organizational innovations than firms in machinery and equipment sector.

As previously discussed in the conceptual framework, absorptive capacity is an important factor for both low-tech and high-tech industries. However, while in the high-tech industries, like machinery and equipment sector, absorptive capacity is the prominent factor for product innovation to take place, in the low-tech industries, like food and beverages sector, absorptive capacity is more important for process and organizational innovations. Considering the perspective of a post-Soviet economy, it could be expected that product innovations are less frequent than process and organization innovations, because the firms are at the stage of transition. They need to invest a lot of financial and physical resources first in order to raise their absorptive capacity and as a result innovative potential. Therefore, innovation behaviour of firms in less technology intensive sectors might be more active than of those involved in highly technological sectors.

H 4. Institutional environment of the capital region encourages local business agents to innovate, whilst institutional framework of the bordering regions affects negatively the propensity of firms to innovate in these regions.

This hypothesis follows the previous discussion that institutional environment is very important for encouraging economic actors to innovate and upgrade their capabilities. High quality institutional environment encourages local business agents to innovate in the capital

region due to reliable and supportive institutions that act as the pull factor for firms to such a metropolitan location. In the case of bordering regions within a Soviet transition system institutional change might occur slower, which leads to an emergence of thick institutional frameworks. Such institutional thickness is derived by the presence of post-communist legacy within the regional development of such a transition country as Ukraine. Being locked in within the remains of path-dependent institutions, firms are neither interested, nor able to motivate. Therefore, it could be assumed that while institutional framework of the capital affects positively the innovation performance of local firms, this is exactly the opposite for bordering regions.

### 4. Data and methods

On the basis of the research methodology presented in chapter A, the following data and methods are introduced. The crosstabs descriptive analysis of the innovation performance of firms, share of sales spent by innovative firms on R&D, number of employees involved in R&D at innovative firms, and share of sales spent by these firms on training activities for highly skilled staff was run. It covered the differences between three regions (differences between the capital region Kyiv, the Western close to the EU border region Lviv and the Eastern far from the EU border region Kharkiv) and differences by the type of ownership (brown field FDIs, green field FDIs, Domestic SMEs with Soviet context and domestic new private SMEs) (Annex 8-15). The difference between the different ownership types of firms was discussed in chapter C.

Three binary logit regression models were introduced in order to confirm the robustness of the results through identifying that significance and relationship between the outcome variables and controls do not change in different models. The first model is introduced in Table E.1. The dependent variable is any form of innovation, namely, "1" means that a firm incurs product, process or organizational innovation, "0" means that a firm does not innovate at all. This model is run for all the firms from all three survey regions with four control groups: domestic new private firms, green field FDIs, Kyiv region and domestic new private firms, Lviv region and green field FDI firms. The second model is introduced in Table E.2. The model is run for all the firms from all three survey regions. There are three dependent variables in this model: product innovation, process innovation and organizational innovation with the same outcome as described above ("1" means that a firm introduces product/process/organizational innovation, "0" means that a firm does not introduce product/process/organizational innovation). In the second binary logit model there two controls for each dependent variable, namely domestic new private firms and green field FDI firms. The third binary logit model is presented in Table E.3. Here the dependent variable is the same as in the first model, but regional dummies and control variables for domestic new private firms and green field FDI firms in each survey region are introduced.

An overview of the independent variables is introduced in Annex 6 and the correlation matrix in Annex 7. Thus, among the independent variables regional dummy (for the first binary logit model in Table E.1), ownership dummy, sector dummy, absorptive capacity parameters, inter-firm cooperation dummy and institutional quality dummy are covered. The regional dummy includes the three survey regions, namely Kyiv region, Kharkiv region and Lviv region. The ownership dummy covers the four groups of firms: Domestic SMEs with Soviet context, domestic new private SMEs, brown field FDI and green field FDI firms. The sector dummy represents food and beverages sector and machinery and equipment sector. Among absorptive capacity parameters the logged number of employees at the firm, share of employees with higher education, share of employees involved in R&D, share of foreign employees at the firm, share of sales spent on R&D and share of sales spent on training activities of highly skilled staff are analysed. With regard to the institutional quality dummy, the composite indicator of institutional quality was built (discussed in chapter C). Concerning inter-firm cooperation dummy, its value equals "1", if a firm has any foreign/domestic cooperation, and "0", if a firm has no foreign/domestic cooperation.

#### 5. Results

The first part of the results concerns the descriptive statistics presented in Annex 8-15. It can be observed that Lviv region leads with more than 80% of firms that introduce any form of innovation activities, namely product innovation, process innovation or organizational innovation (Annex 8). However, such a high percentage of innovative firms in Lviv is linked to the high importance of process innovations, in which there are 77,3% of firms that implement new or introduce significant changes to their processes. Kyiv region, by contrast, stands up with product innovation. In the capital there are around 70% of firms that innovate in terms of product innovations.

In Annex 9 the difference with regard to innovation schemes of firms by ownership types could be investigated. Thus, green field FDI firms lead in all forms of innovation with about 90% of firms that introduce any form of innovation and around 80% of firms in each of innovation forms. Brown field FDI enterprises are the second in terms of being successful innovators with on average around 10% less firms that introduce innovations in comparison to green field FDIs. Domestic firms are the least innovative group. While the share of Domestic firms with Soviet context that innovate in different innovation forms is on average more than 60%, domestic new private firms perform the worst with only around 40% of domestic new private firms that introduce product innovations.

In Annex 10-15 the descriptive analysis of absorptive capacity aspects of firms that innovate by region and by ownership is presented. It can be observed that in Lviv region the share

of innovative firms that do not invest in their R&D is the highest, namely around 60%, compared to about 30% of such firms in Kyiv and 40% - in Kharkiv (Annex 10). Kharkiv region leads in terms of the amount of innovative firms that spend on their R&D up to 10% of their sales, while the capital Kyiv is the leader in spending on R&D more than 10% of sales. Poor performance of Lviv with regard to investment in R&D capacity is contradicting considering the results stated above concerning a quite high number of firms that innovate there. Therefore, this only supports the previous logic that innovative behaviour of firms in Lviv shall not be over interpreted. Moreover, this could be explained by the fact that in the Soviet times Lviv was not a target region for industrialization, which resulted in less demand for capital in comparison to industrial hub Kharkiv and the capital Kyiv.

In terms of differences by ownership in Annex 11 these are not significant. However, it could be seen that around 50% of domestic firms do not invest in R&D, while around 20% of green field FDI firms invest in R&D more that 10% of their sales. Lack of financial support of innovation potential of domestic firms could serve as one of the most prominent reasons of poor innovation performance of those. With regard to staff involved in R&D processes of a firm Lviv region scores the worst with more that 70% of firms that do not have R&D staff at all, while around 45% of innovative firms in Kharkiv have more that 10% of their employees involved in R&D (Annex 12). This is an interesting result, considering the fact that Lviv region scores quite high with regard to process innovation, while it is lagging behind within its absorptive capacity parameters. The pattern of domestic firms performing much worse than foreign-owned firms is also observed concerning the differences in the shares of staff involved in R&D in innovative firms (Annex 13). Thus, around 60% of domestic firms with Soviet context and 50% of domestic new private firms do not have R&D-related employees among their staff, while around 35% and 33% of brown field FDIs and green field FDIs respectively have more than 10% of their employees involved in R&D. Another aspect of absorptive capacity of innovative firms that is assessed is education of employees, namely provision of trainings for highly-skilled staff. As it can be seen from Annex 14 the shares of innovative firms not investing in trainings for their highly-skilled employees is quite high in all regions of Ukraine, i.e. around 35% in the capital, 50% in Lviv and Kharkiv, although these results are not statistically significant. At the same time while there are around 70% of brown field FDI firms and 60% of green field FDI firms that spend up to 10% of their sales on trainings for highly-skilled staff, there are more than 50% of domestic firms that do not invest in training of their employees at all (Annex 15).

The second part of the results concerns the binary logit regression models. In Table E.1 the first binary logit model with any form of innovation as a dependent variable is introduced. As it can be observed the regression results coincide with the descriptive statistics outcome discussed

above. Thus, firms in Lviv region are more likely to innovate than those located in Kyiv and Kharkiv regions. Domestic SMEs with Soviet context as well as green field FDI firms are more likely to innovate than domestic new private firms. At the same time brown field FDI firms are also less likely to innovate when controlling for Lviv region. Firms in food and beverages sector are more innovative than those in machinery and equipment sector. With regard to absorptive capacity parameters of firms, those firms with larger share of employees with higher education and employees involved in R&D as well as those firms that invest in R&D are more likely to innovate.

Table E.1: Binary logit regression on innovation behaviour of firms (I)

	I	П	III	IV
Dependent variable		Any form of innovation		
Control Group	Domestic new Green field domestic new private firms FDIs Kyiv region & domestic new private firms		Lviv region & green field FDIs	
Regional dummy				
Kyiv region				-,824**
Kharkiv region			-,465	-1,288***
Lviv region			,824**	
Ownership dummy				
Domestic SMEs with Soviet context	,819***	-,619	,746**	-,620
Domestic new private firms		-1,437**		-1,367**
Brown field FDIs	,516	-,922	,300	-1,066*
Green field FDIs	1,437**		1,367**	
Sector dummy				
Food & beverages sector	,528*	,528*	,471	,471
Machinery & equipment sector				
Absorptive capacity				
Log of # of employees	,441	,441	,452	,452
% of employees with a higher education degree	,009**	,009**	,005	,005
% of employees involved in R&D	,113***	,113***	,134***	,134***
% of foreign employees	,013	,013	,013	,013
% of sales spent on R&D	,066	,066	,069*	,069*
% of sales spent on trainings of highly skilled staff	-,044	-,044	-,036	-,036
Inter-firm cooperation dummy	,464	,464	,461	,461
Institutional quality dummy	-,506	-,506	-,516	-,516
Model fit				
Sig.	,000	,000	,000	,000
-2 Log likelihood	372,106	372,106	356,924	356,924
Cox & Snell R Square	,159	,159	,189	,189
Nagelkerke R Square	,247	,247	,292	,292
Correctly classified cases by the model	80,7	80,7	81,4	81,4
N	431	431	431	431
17	731	TJI	7.7.1	731

Source: Provided by author
Note: \*Significant at the 0.10 level; \*\*Significant at the 0.05 level; \*\*\*Significant at the 0.01 level.

In Table E.2 the second binary logit model is presented with product, process and organizational forms of innovation as outcome variables. As it can be observed domestic new private firms are the least likely to be active in product innovation compared to all other types of firms, in process innovation the score is worse than that of foreign-owned firms and in organizational innovation domestic new private firms perform worse in comparison to green field FDIs. At the same time green field FDIs are more likely to introduce product innovations in comparison to both domestic and brown field FDIs, process innovations in comparison to domestic firms and organizational innovations compared to domestic new private firms only. Firms in the food and beverages sector are more likely to perform process and organizational innovation. The larger the firm is, the more active it is likely to be in product and process innovation, considering that the significance level changes from 1% in the case of product innovation to 10% in the case of process innovation. Higher share of employees involved in R&D is likely to impact positively all forms of innovation, but in the case of organizational innovation the significance level is 10% while it is 1% in product and process innovation forms. Investment in R&D has positive relationship towards product and process innovation. Inter-firm cooperation between foreign and domestic firms gets only positively significant for process and organizational innovation.

Table E.3 introduces the third binary logit regression model with any form of innovation as a dependent variable for three survey regions. In the capital region Kyiv Domestic SMEs with Soviet context are more likely to innovate than domestic new private firms. Firms in food and beverages sector are also more innovative than those of machinery and equipment sector. Share of employees involved in R&D positively affects the probability of firms to innovate in Kyiv and Kharkiv. R&D-related investments have positive relationship towards innovation propensity of firms only in Kharkiv. Training of highly-skilled staff lowers the probability of innovation activities by firms in Kharkiv. Inter-firm cooperation between foreign-owned and domestic firms positively impacts innovation performance of firms only in the capital region. At the same time in the bordering regions institutional quality dummy gets significant but with negative relationship.

Table E.2: Binary logit regression on innovation behaviour of firms (II)

	I	II	III	IV	V	VI
Dependent variable	Product in	innovation Process innovation		novation	Organizational innovation	
Control Group	Domestic new private firms	Green field FDIs	Domestic new private firms	Green field FDIs	Domestic new private firms	Green field FDIs
Ownership dummy						
Domestic SMEs with Soviet context	,877***	-1,252***	,273	-1,276**	,267	-,640
Domestic new private firms		-2,129***		-1,549***		-,907**
Brown field FDIs	,983***	-1,147**	,745*	-,804	,341	-,566
Green field FDIs	2,129***		1,549***		,907**	
Sector dummy						
Food & beverages sector	,080,	,080,	,675**	,675**	,745***	,745***
Machinery & equipment sector						
Absorptive capacity						
Log of # of employees	,808***	,808***	,489*	,489*	,310	,310
% of employees with a higher education degree	,003	,003	,002	,002	,002	,002
% of employees involved in R&D	,029***	,029***	,034***	,034***	,017*	,017*
% of foreign employees	-,008	-,008	,013	,013	-,014	-,014
% of sales spent on R&D	,061***	,061***	,067**	,067**	,012	,012
% of sales spent on trainings of highly skilled staff	-,027	-,027	-,048	-,048	,035	,035
Inter-firm cooperation dummy	-,144	-,144	,592*	,592*	,695**	,695**
Institutional quality dummy	-,003	-,003	-,066	-,066	,226	,226
Model fit						
Sig.	,000	,000	,000	,000	,000	,000
-2 Log likelihood	500,994	500,994	466,851	466,851	540,582	540,582
Cox & Snell R Square	,169	,169	,142	,142	,092	,092
Nagelkerke R Square	,228	,228	,200	,200	,124	,124
Correctly classified cases by the model	68,7	68,7	71,2	71,2	65,2	65,2
N	431	431	431	431	431	431

Source: Provided by author Note: \*Significant at the 0.10 level; \*\*Significant at the 0.01 level.

 Table E.3: Binary logit regression on innovation behaviour of firms (III)

	I	П	III	IV	V	VI
Dependent variable			Any form of	of innovation		
	Kyiv r	Kyiv region Lviv region		Kharkiv region		
Control Group	Domestic new private firms	Green field FDIs	Domestic new private firms	Green field FDIs	Domestic new private firms	Green field FDIs
Ownership dummy						
Domestic SMEs with Soviet context	1,561**	,506	-1,109	-,783	,674	-,953
Domestic new private firms		-1,055		,327		-1,627
Brown field FDIs	,294	-,761	-,779	-,453	,897	-,730
Green field FDIs	1,055		-,327		1,627	
Sector dummy						
Food & beverages sector	1,301*	1,301*	1,034	1,034	,382	,382
Machinery & equipment sector						
Absorptive capacity						
Log of # of employees	1,013	1,013	,983	,983	-,138	-,138
% of employees with a higher education degree	-,066	-,066	,010	,010	,010	,010
% of employees involved in R&D	,218***	,218***	,007	,007	,166***	,166***
% of foreign employees	,042	,042	,509	,509	,059	,059
% of sales spent on R&D	,028	,028	1,630	1,630	,286**	,286**
% of sales spent on trainings of highly skilled staff	,072	,072	-,442	-,442	-,165**	-,165**
Inter-firm cooperation dummy	1,502*	1,502*	-,087	-,087	,248	,248
Institutional quality dummy	,388	,388	-2,029***	-2,029***	-1,539**	-1,539**
Model fit						
Siş	,000	,000	,006	,006	,000	,000
-2 Log likelihoo		93,624	71,740	71,740	117,105	117,105
Cox & Snell R Squar		,297	,180	,180	,328	,328
Nagelkerke R Squar		,465	,352	,352	,470	,470
Correctly classified cases by the mode		89,4	90,6	90,6	80,8	80,8
·	N 141	141	139	139	,146	,146

Source: Provided by author Note: \*Significant at the 0.10 level; \*\*Significant at the 0.01 level.

#### 6. Discussion

Based on the results presented above, the discussion part will revolve around the hypotheses stated earlier in this chapter.

H 1. Firms in the capital region Kyiv are more innovative than firms in the bordering regions.

This hypothesis could not be fully accepted. The results show that in any form of innovation this is bordering region Lviv, which leads. On the other hand, it is difficult to argue that firms in Lviv are overall more innovative than those of the capital due to several reasons. Firms in Lviv are more innovative in process innovation and firms in the capital are more innovative in product innovation. Food and beverages sector, in which process and organizational innovations predominate, seems to be more innovative than machinery and equipment sector with product innovation form. Since food and beverages sector is a low-tech industry, this could lead to process innovation overcoming product innovation in terms of firms' innovation propensity in low-tech sectors, which in the end could lead to an outcome that Lviv region with process innovation excels the capital with more technology-intensive innovation.

H 2. Innovative outcome of foreign-owned firms located in Ukraine is higher than that of their domestic counterparts.

This hypothesis is accepted. Both descriptive and regression statistical results prove that foreign-owned firms, especially green field FDIs are more innovative than domestic counterparts, with domestic new private firms being the least active in innovative performance. It could explain it with the previous reasoning with regard to the specificity of a transition economy per se. For such an emerging market in transition from the planned communist economy as Ukraine, FDIs play a tremendous role in terms of economic growth and development of the country and its regions. MNEs bring one of the most important assets to the host markets, such as tacit knowledge through their employees and technologies otherwise unavailable within the local economic system. It is supposed that domestic firms are less productive than their foreign counterparts specifically because they lack this certain tacit knowledge. Therefore, the results only prove that FDIs are more innovative than domestic firms and are essential for the local transition economy to grow through the means of knowledge spillovers to domestic business actors.

Especially interesting is the fact that these are green field FDIs that perform the best and domestic new private firms that perform the worst. These could be explained by the reasoning that green field FDIs are usually much more capital- and technology intensive, because these firms need to build their own production capacities at site. Decision to go abroad to do that in the majority of the cases is derived from the necessity to gain certain competitive advantage at the host location. Therefore, subsidiaries of MNEs need to incorporate new technology, process or even product in order to get embedded into the regional economic system at the most efficient manner

and be competitive enough to survive. As a result green field FDI firms become much more innovation prone than brown field FDI firms, which acquire already existing production sites at the host location. Brown field FDIs in some cases might be even not interested to innovate if they acquire already good functioning business entity embedded into the local economic system. Within the realm of such a transition economy as Ukraine with present legacy of Soviet past, especially in Kharkiv, it is quite hard to break the old system. Therefore, building something new from scratch might be even more realistic than changing an old paradigm. However, this works quite the opposite for domestic firms. The fact that domestic new private firms score the worst could potentially mean that domestic firms do not have enough capabilities, freedom and financial support to innovate. Whereas domestic firms with Soviet context might still have capacities from the planned economy past with regard to highly qualified R&D staff and innovation propensity of those could therefore be better. Nevertheless, when R&D activities do not get enough investment, like in the case of domestic firms, the marginal effect of these absorptive capacity aspects for innovation propensity drops drastically.

H 3. Firms in food and beverages sector are more innovative when it comes to process, marketing and organizational innovations than firms in machinery and equipment sector.

This hypothesis is accepted. The results of the regression models show that firms in food and beverages sector are more innovative in process and organizational innovation forms. Within the perspective of a transition economy the focus is on firms, especially domestic actors, which might be not highly productive due to being locked in within in the legacy of the Soviet past and absorptive capacity of which is also not as high as of firms in more mature and developed markets. This leads to an outcome when within a transition economy process and organizational innovations outstrip product innovation due to certain time, cost and resource constraints. Thus, for machinery and equipment sector to be more innovative than food and beverages sector, firms need to introduce more capital- and technology-intensive innovations. As it can be observed from the results the impact of absorptive capacity parameters on the innovative propensity of firms lowers in process and organizational innovations compared to the one in product innovation form. In the bordering regions, especially in Lviv, which scores quite bad in terms of investment in R&Drelated activities and number of staff involved in R&D, these parameters show no impact on the firms' innovation propensity. While Kharkiv region, which is a high-tech industry centre, does not score well on these parameters either, there is a positive impact of those aspects on the innovation performance of firms in this region. And this could possibly mean that those firms that do invest in R&D and that do attract R&D-related staff innovate more. So, lower absorptive capacity will hinder firms to innovate and force the low performers out to less technology-intensive sectors, where mostly process and organizational innovation forms are possible.

H 4. Institutional environment of the capital region encourages local business agents to innovate, whilst institutional framework of the bordering regions affects negatively the propensity of firms to innovate in these regions.

This hypothesis is accepted. In the transition economies the capital region is first and for most the hub of opportunities, because it concentrates the best human capital, access to technologies, knowledge and information. To sustain such a trend the governments of the states are interested to support the capital region by the means of creating attractive institutional environment in the latter, which will pull firms to the capital and create good conditions for those to grow and raise in such a way the wealth of the regional and national economic systems. Within such a perspective, bordering regions are left out from the priority lists of improvement and very often their institutional environments are of low quality and provide no support to local business actors. In the case of Ukraine bordering regions used to play their strategic roles within the planned economy of the Soviet Union. While Kharkiv was an industrial hub with heavy industry conglomerates, Lviv was an agricultural hub with a respective infrastructure. Transition from a planned Soviet economy involves change of an old system. But this change could happen slowly or even not happen at all due to several reasons. Firstly, bordering regions do not gain enough attention from the decision makers, i.e. the government stating certain institutional rules of the game, to introduce this change. As a result this only distracts the generators of actual change, namely enterprises. Secondly, an old system always involves certain infrastructure which is already embedded within the regional economic system. So, if it keeps running, there are no interested parties to introduce any change. In such a case it is easier to build something new from scratch than change something that already exists. This in its turn leads to the capital region being top priority for raising the quality of local institutional environment. Thus, while institutions of the capital are undergoing transformations, institutional environment of the bordering region gets only thicker from unsystematic change attempts. This results in a thick institutional environment of the bordering regions, which limits local firms in their innovation pursuits, because they lack freedom, on the one hand, and actual financial and regulative support, on the other, to innovate.

## 7. Summary

In this chapter the factors impacting innovation performance of foreign-owned and domestic firms are investigated in three regions of Ukraine as a transition economy from the Soviet past. Based on the results of 305 domestic and 153 foreign firms, carried out in three regions of Ukraine in two different sectors, the focus is, firstly, on the regional, ownership and sectoral differences of the innovation performance of firms and secondly, on the role of absorptive capacity, inter-firm cooperation and institutional environment on the propensity of business actors to innovate.

Within the empirical analysis descriptive statistical results are introduced as well as binary logit regression models uncovering the relationship between the factors impacting innovation

activities of firms and the output of such activities within three innovation forms: product innovation, process innovation, marketing and organizational innovation as an organizational innovation form. The following results are introduced. Firstly, firms located in the capital are more product-innovators and those located in Lviv are more process-innovators. This leads to overall innovation propensity of firms in Lviv being higher than that of Kyiv. However, it is difficult to assume that firms in Lviv are more innovative than those located in the capital due to a lesser technology- and capital-intensity of process innovations per se. Bordering regions still perform quite poor with regard to absorptive capacity parameters, namely R&D investment and involvement of R&D-related staff, in comparison to the capital. Secondly, foreign-owned firms seem to excel domestic counterparts in terms of innovation progress. Green field FDIs are the most innovative firms, whereas domestic new private firms perform the worst. This is also supported by the evidence that domestic firms have much lower absorptive capacity in comparison to the subsidiaries of MNEs that bring along new knowledge and technologies. Thirdly, food and beverages sector is supposed to be more innovative as a low-tech industry when it comes to process and organizational innovation forms compared to machinery and equipment sector as a high-tech industry. This is an important result especially considering the transition economies perspective of this dissertation. Innovation in low-tech industries results in active process and organizational innovations. However, firms in these industries tend to invest in their absorptive capacity parameters much less than those of high-tech sectors, which lowers the ability of firms to learn from their business partners and innovate. And the last but not least, the evidence of importance of a high quality institutional environment for the innovation propensity of firms was found. Thus, when institutional framework is supportive towards firms, it impacts positively their innovation performance, but when institutional environment gets thick, it becomes a burden for business agents, which cannot introduce innovations as they get locked in.

### CHAPTER F. CONCLUSIONS

### 1. Answers to research questions

This dissertation focuses on a post-Soviet economy in transition, an ENP member, Ukraine, incorporating different perspectives of study of FDIs, namely a catch-up perspective of the East Asian states, institutional perspective at the sub-national regional level, and innovation perspective with regard to innovation behaviour of local and foreign firms cooperating within a single regional economic system. This research introduces both theoretical frameworks on the above stated perspectives of study as well as empirical results of the enterprise survey carried out in three regions of Ukraine. The survey was introduced to 458 firms, 355 domestic firms and 153 foreign firms, in two sectors, namely food & beverages sector as well as machinery & equipment sector, by the means of face-to-face interviews with a standardized likert-scale questionnaire. The results reveal the following answers to the research questions introduced in chapter A:

1. Can the success story of East Asian catch-up be used by a post-Soviet state in transition?

The transferability of the elements of the successful catch-up within the realm of a post-Soviet state is analysed through the possibility of implementation of the BeST Consensus, which was the base of an economic transition in East Asia. Thus, the BeST consensus encountered four main components, namely strong role of the state, stable macroeconomic settings, catch-up friendly system, enforcement of public spending and market led by the government catch-up model. Strong role of the state in East Asia was expressed through industries and technologies targeting, leading sectors upgrading, gradual phasing out of non-market interventions and creation of pilot agencies guiding the industrialization. Developing and establishing of a strong role of the state could be quite difficult to introduce within a post-Soviet context due to high context specificity of this parameter. Lost faith in the state goes a red line throughout all the economic processes in such a post-Soviet state as Ukraine, because the communist government used to act according to the interests of specific political groups rather than common economic rationale. This led to emergence of heavy industries supported by the government which were not however competitive in the long run. As Ukraine is a WTO member now it has to align to the general rules of the latter while facing competition from other emerging markets. This is especially difficult when the government is not going to change the strategic targeting of the "old system" industry towards giving preference to the potentially competitive ones.

Stable macroeconomic settings were introduced in East Asia by the means of lowering unemployment, provision of stable inflation and budget deficit. This could be introduced more easily, because macroeconomic stability is an important pre-requisite of any state in transition and is the basis for all economic and social transformation processes. Therefore, provided that the

government of the state will focus on introduction of specific policies that will be directed towards regulation of unemployment, budget deficit, inflation, investment and trade, the overall stable macroeconomic environment of the state will facilitate the transition from the past Soviet regime towards a high-growth economy. In the meanwhile, such macroeconomic stabilization is only possible if the government acts as a supporter of the catch-up, eliminates corruption and provides enforcement of the legal system which will regulate the macroeconomic policies.

Under the catch-up friendly system the BeST Consensus introduced "easy" crediting conditions and financial incentives for upgrading and opening of new enterprises. This element could be also potentially used due to its lesser context specificity in comparison to the strong role of the state. Moreover, creation of a catch-up friendly system could serve as a pre-requisite of regaining the faith in the state. Only provided that economic actors feel being supported by the state, they could act as the generators of economic wealth. To achieve this Ukrainian government should provide among other factors "friendly" financial and crediting conditions for start-ups development and upgrading in the existing enterprises.

Public spending in East Asia during the catch-up process was directed mainly to the development of local firms' capabilities and broad-based education building. This might be hard to introduce within the reality of Ukraine because the existing institutional system lacks institutional quality. This leads to the emergence of possibilities for the government to take advantage of the "loopholes" of the existing system for their own benefit. As a result, public spending even when provided de jure is not reached by the target recipients de facto. Therefore, introduction of this element of the BeST is only possible in case if sound legal frameworks are developed for the public spending programs to be launched.

The last but not least, is that in East Asia the catch-up model was based on the government leading the market and not vice versa. This meant that the government was controlling the rules of the game in the market, which provided needed regulation and support at the same time. Concerning introduction of this element within the realm of Ukraine, this might not be an easy task due to the discussed above lost faith in the state which exists in a post-Soviet space. Thus, post-communist government shall regain the faith in itself first in order to make the market accept its rules of the game.

### 2. Are there regional differences in the quality of institutions in Ukraine?

Although institutional environment is attributed to a larger extent to the national level of state governance, in this study the focus is on an underestimated in the literature sub-national, regional level, where institutions get path- and place-dependent and act differently in different localities. Since Ukraine is a post-Soviet state in transition, there is still the remains of an old communist system present, expressed through the culture, traditions, social rules and norms, behaviours and religion. Therefore, as Rafiqui (2009) points out that for institutional change to happen at a

regional scale, a complicated process of change of beliefs and norms on the bottom level of the local culture has to take place beforehand. Institutional place-dependence is introduced when the quality of institutional environment in different regions differs with regard to one region being more embedded within an old post-Soviet framework and another region being much less impacted by the ex-communist regime. Thus, the Eastern bordering region Kharkiv used to be a heavy industry hub in the Soviet Union times. Since the whole planned economy was driven by the heavy industry, the impact of the communist system in the East of the country was much higher than that of in the Western part. Lviv region, located in the West close to the EU border, used to experience much less of Soviet industrialization and as a result institutionalization compared to the East. Therefore, institutional environments in these regions are supposedly different.

Under the quality of institutions in this study the quality of the following elements is meant: enforceability of legislation and regulation policies, physical and intellectual property rights protection, reliability of oral contracts and agreements, central and regional government. The survey firms in such a way assessed the quality of both formal and informal components of the local institutional environment at a specific region from 1 (very bad quality) to 5 (very good quality). Thus, the results of the empirical analysis show that in Ukraine regional institutional frameworks do differ in terms of their quality. The capital region leads with higher quality of local institutions compared to the bordering regions, where the majority of firms rate institutions as of low quality and hindering their economic activities. The capital region also stands out in terms of having formal and informal institutions fit together. This is primarily expressed through the fact that as long as formal institutions are assessed as of high quality, informal institutions such as reliability of oral contracts and agreements are also assessed positively. In such a way, informal components of the institutional culture help having formal laws and regulations get introduced in the society, because informal code of conduct serves as leverage for certain laws and regulations to be effective.

Moreover, the scale of uneven regional development in post-Soviet transition economies is so immerse, that the capital regions always outstrips the periphery while serving as an industrial, commercial and social hub of the state. This results in a certain demand for better regulation schemes in the capital, because a hub can only grow and maintain itself by the means of certain institutional support. Central government support being also directed mostly to the capital leaves out bordering region without any incentives for institutional advancement. Concerning the differences in terms of institutional quality of the Eastern region Kharkiv versus the Western region Lviv, the latter is being least supported by the central government. This could be explained by the fact that the remains of the Soviet economic system is still present in Kharkiv since it was a heavy industry hub in the Soviet times. This leads to the industrial infrastructure being still present in Kharkiv, which induces government to support more industrialized parts of the country over

peripheral regions. Thus, the government supports regions which are the main economic generators of the state, neglecting those regions which might introduce new opportunities that do not fit into the post-Soviet frame. Institutional lock-in and institutional sickness evolve as a consequence of preferential treatment by the government of the old system rather than developing new institutional frameworks encouraging radical economic change within a transition perspective.

3. How do subsidiaries of MNEs and domestic SMEs assess the quality of institutions deployed in the country and what determines the differences in the assessment of institutional quality by MNEs and domestic SMEs?

Multinational companies entering new markets are characterized by multiple embeddedness (Meyer et al., 2011). This means that an MNE is embedded at the level of the home country and at the level of the host economy within a specific local context of the latter. Thus, foreign firms become the main transmitters of legal norms and codes of conduct from their home countries. The cost of embeddedness within the host regional economic system is equivalent to the extent of difference between the norms and rules a foreign firm is used to in its home country and the ones active in the host economy. In such a way foreign firms need to adjust to a certain institutional environments at a specific region, while domestic SMEs are already used to a local institutional context. Being much more institutionally locked-in in comparison to MNEs, domestic SMEs do not encounter the low quality of institutional environment to an extent MNEs do. Otherwise, MNEs may tend to create their own institutional environments around them, which is expressed through what Oliver (1992) calls deinstitutionalization, when the established and common to the MNEs institutionalized organizational practice disentangles, because organizations fail to reproduce practices they are originally used to within new locations aiming at fast and efficient adjustment to the local rules. In such a way, MNEs contribute to an emergence of a new institutional framework (Chung and Beamish, 2005). Moreover, since FDI inflows are very important for transition economies' growth and catch-up in the long run, the governments of emerging states as a result introduce preferential treatment and attractive institutional frameworks to the new comers, which affects how MNEs embed into the local host environments (Farrell et al., 2004; Meyer et al., 2009).

The results of this study show that generally MNEs tend to assess institutional quality higher than domestic SMEs. Especially domestic new private firms score the quality of local institutional environment the lowest. Green field FDIs by contrast seem to be the most positively associated with the institutions they work with within a certain regional economic context. This could be explained by the line of argument that MNEs tend to create their own institutional environment. Green field FDIs enter the host economy with an aim of building their own production sites in such a way providing substantial capital and technological base to the location and attracting a corresponding institutional or government treatment for that matter. All this leads to an emergence

of a local microsystem around MNEs, which exists on the basis of a certain institutional environment foreign firms create. As such these firms assess the quality of these institutions better, because the latter evolve around the needs of incoming FDIs. New private domestic firms, on the other hand, seem to be the most neglected by the local institutional environment. This might be due to the fact that the government does not support domestic SMEs enough to introduce friendly institutional frameworks for the start-ups and young generators of economic wealth, because while the remains of the Soviet system are present there is lack of motivation and interest for government officials to pursue the new opportunities rather than support the old system of the past.

# 4. What are the motives of foreign investors coming to different regions of Ukraine?

Dunning (1993, 2000) identifies four main motivations for FDI, namely, market seeking, resource seeking, efficiency seeking and strategic asset seeking. Resource seeking investors strive for the availability of cheap natural resources, labour and physical infrastructure. Market seeking investors are attracted by the host country's market size, its income per capita, market growth and consumer demand in order to benefit from the economies of scope and scale. For market seeking investors, proximity plays a very important role, because MNCs are encouraged to invest in those locations, where potential suppliers and customers are already present. Investors motivated by efficiency seeking focus on reaching more efficient division of labour or specialization of assets. And the last but not least, strategic asset seeking investors are motivated by an opportunity to increase their profitability through gaining access to strategic assets that are only available at the host location (Kudina and Jakubiak, 2008). Transition economies mostly tend to attract resource seeking, market seeking and strategic assets seeking investors (Ledyaeva, 2009). The main purpose of these investors is to reach out to cheap resources for their production bases, gain from untapped market opportunities in emerging markets and look for specific strategic assets that might be scarce or unavailable in their home countries.

The empirical research introduced in this dissertation proves that the main motives of FDIs coming to Ukraine are market seeking and strategic asset seeking. Thus, in the capital Kyiv region foreign firms are seeking for market's potential and broader demand. This could be explained by the fact that the capital region always serves as the industrial, commercial and social hub of the state, where the concentration of social capital is higher. This is especially relevant for the post-Soviet Eastern states with highly disproportional regional development, with the capital regions outstripping bordering regions in economic and social growth. Intensive market growth, untapped market potential in a form of new business opportunities, availability of broad customer-supplier networks in the capital regions of transformation states serves as an attractive factor for foreign investments. Lviv region, by contrast to the capital, attracts strategic asset seekers. FDIs come to Lviv searching for human capital, specific pool of skilled labour. Foreign firms in Lviv region tend to create their own clusters of firms, clusters-specific knowledge pools and networks, which help

to decrease certain transaction costs and therefore support the subsidiary's embeddedness process within the new regional economic system. Moreover, Lviv region was much less affected by the Soviet industrialization in comparison to Kharkiv region. This might be one of the reasons that the Western part of Ukraine tends to be much more open to new market trends and cross-border knowledge spillovers as being close to the EU border. This leads to formation of a concentrated labour force pool with certain range of skills supported by the networks of the firms from the same sector. FDIs coming to Kharkiv could be also categorized as strategic assets seekers since firms from machinery and equipment sector tend to choose Kharkiv over Kyiv and Lviv. This could be explained by the fact that since Kharkiv in the Soviet Union times used to be a heavy industry hub, the old infrastructure is still present there. Therefore, foreign firms coming to Kharkiv might be especially interested in the specific technology available through the networks of existing firms from one sector.

5. What are the traditional region-specific factors that determine the location choices of foreign firms in Ukraine?

Internalization theory developed by Dunning (1980, 1988) was based on his eclectic paradigm. The OLI paradigm encompasses ownership, location and internalization advantages for firms to go abroad. Ownership advantages stand for firm-specific assets that are essential for outreaching the firm's competitors. Location advantages refer to location-specific advantages the host environment owns, which are not available within the home markets of an FDI. Internalization advantages are expressed through advantages which are brought to the firm by owning production within a specific location rather than by licensing or joint-venture agreements.

In post-Soviet transition states, and especially in Ukraine, location advantages impact MNE's decision to invest into a certain region. The reason to that lies in the fact that at the sub-national level determinants of location choice of an FDI become very motivation-specific. At this point investment decision concerning a certain location describes a managerial perspective of an investing firm. When a multinational is looking for cheap natural resources, for instance, its strategy will probably be using the current location as a resource base with the further re-import of the produced goods to the home country. On the other hand, when a firm is looking for specific knowledge pool, it will invest into the development of the social and human capital of the current region and will focus on serving of the local market.

Geographical proximity is also referred by economic geographers to traditional factors that attract FDIs to certain location. Firms in the same industries are drawn to the same location in order to benefit from geographical proximity, which results in positive "agglomeration effects" (Boschma, 2005; Bathelt et al., 2004; Cooke, 2001). Firms' clustering within certain regions causes the formation of pecuniary and technological externalities, which explain the industry localization (Head et al., 1995). The reason for this is that localization of companies provides a

pool of workers with common skills range, a certain knowledge base, which enables the firms exchange knowledge and technology, benefiting in such a way from technological spillovers. Moreover, the less the actual distance is, the better can firms benefit from knowledge externalities. Therefore, the proximity to the EU and thus to the firms from the same home country might affect positively FDI inflows into the Western region Lviv, which is close to the EU border. The same scenario might be occurring for the Eastern region Kharkiv, bordering the CIS states, leading to firms from the post-Soviet environment locating their investments in Kharkiv.

The results of empirical research prove that such traditional economic factors as market demand, human capital and geographical proximity to the EU in the case of Lviv and to the CIS in the case of Kharkiv do play a role in the location choice decisions of FDI to bring their investments to different regions in Ukraine. Thus, firms looking for human capital as an important intangible asset will choose Lviv for locating their investments. The capital region Kyiv will win over investors by the untapped market potential and bigger demand available. Firms from the EU will go to geographically closer Lviv rather than Kyiv or Kharkiv, whereas firms originating from the CIS will enter Kharkiv, which is the most geographically proximate region to the CIS states.

6. How does regional institutional quality in Ukraine impact the propensity of foreign firms to invest in certain regions in Ukraine?

Traditional economic factors impacting location choice decisions of MNEs were revised by Dunning in 2008 through adding institutions as an important component within the whole OLI framework. Combining the macro level of institutions as the controlling mechanism of the behaviour of economic agents, and the micro level of institutions impacting managerial decision making, institutions affect all three elements of the eclectic paradigm (Dunning and Lundan, 2008).

In this study much of attention is being paid to the regional differences in institutional quality, which impact the decision making of an FDI with regard to internationalizing not only to the new countries, but even to the new regions within those countries. Institutions as such serve as the (inter)national as well as national level determinants attracting MNEs to certain countries first and to specific regions in these countries second (Meyer and Nguyen, 2005). It is very important for foreign firms to get embedded into the regional economic system effectively. The success of such an embeddedness process depends on the factor endowments of the specific regions. Institutions are one of the major factors that determine the way a firm will integrate itself into the local economic system. Both formal and informal institutions of a certain locality, which is hosting the investment of an MNC, leverage the transaction costs in the hosting markets and determine the access to the local networks, which are essential for MNCs to successfully embed within the new environment (North, 1990; Bevan et al., 2004).

The results of the empirical research show that the capital region Kyiv together with the Western region Lviv attracts firms, which assess the quality of local institutional environment as good. Moreover, for FDIs located in Kyiv preferential treatment of the government turns out to be an essential determinant of their location choice. As such the results prove that the capital region serves as the target one for the government to create a business friendly institutional environment in order to attract entrepreneurs to the main commercial and industrial hub of the state. Considering high regional differences with respect to the institutional quality in Ukraine, the capital region benefits to the most compared to the bordering regions from access to better government support, which presumably leads to better institutional quality in the region. The institutional environment of the Western region Lviv wins over the one of Kharkiv considering the place-dependency of regional institutions. Since MNEs investing into the host countries are the main transmitters of institutional rules and patterns of their home countries, Lviv will benefit from locating foreign firms from the EU, which are pre-embedded into the institutional environments of the latter. While Kharkiv region with mostly firms from the CIS would be much more endowed into the post-Soviet institutional regime. As a result, institutional quality of Kharkiv might not serve as an attractive factor for foreign firms to locate their investments there. Lviv, on the other hand, benefits form an advantageous institutional context, which is much less Soviet-alike compared to the Eastern part of the country.

7. What regional, sectoral and ownership differences are there in the way firms innovate and what determines the innovation behaviour of foreign-owned and domestic firms?

In the realm of a post-Soviet economy in transition the scale of uneven regional development with regard to the periphery versus the capital is quite high, since the latter outstrips to a big extent the bordering regions in terms of economic growth and catch-up potential. In Ukraine the capital region Kyiv serves as an economic and commercial hub with high concentration of educational and research centres. The bordering or periphery regions, by contrast, lack attractive market opportunities, institutional environment regulations that pull enterprises to these regions on the first place and create good conditions for their innovation progress in the long run. Therefore, the capital attracts best human capital with a wide range of skills, encourages the emergence of technology-related firms, which leads to a much higher competition than in the bordering regions. Within the realm of a fierce competition innovation becomes one of the instruments for a firm to survive. Moreover, high intensity of cooperation between firms as a prerequisite of their innovative activities is only possible in the areas, where firstly, the critical mass of firms is available, and secondly, the absorptive capacity of partners is enough to cooperate. Therefore, in the capital region the intensity of inter-firm cooperation is expected to be higher, which would lead to a higher innovation propensity in the capital rather than in the bordering regions.

Moreover, except for the differences in the intensity of innovation activities, another aspect which is worth paying attention to is the sector-specific innovation behaviour of firms in certain regions. Thus, the Eastern Kharkiv region is located close to the Soviet states and might still have the communist legacy present due to being an important industrial location for the planned economy in the Soviet times. This led to machinery and equipment sector being the driver of the local economic system in Kharkiv. Innovation in a heavy industry sector requires very high absorptive capacity of firms (Fagerberg et al., 2005). However, firms in Kharkiv might be still locked-in in the path-dependent economic environment affected by the remains of the communist economy and therefore, their absorptive capacity might be not high enough to innovate effectively and introduce new products. Moreover, regional differences in innovation behaviour of firms in Ukraine might be also determined by sectoral differences in innovation activities, resulted in emergence of different innovation forms. The empirical research in this dissertation refers to the three forms of innovation according to the Oslo manual (OECD, 2005), namely product innovation, process innovation, marketing and organizational innovation. Thus, in machinery and equipment sector, often classified as a high-tech sector, product innovations play a very important role. In contrast, the food and beverages sector is often seen as a low-tech industry according to Fagerberg et al. (2005), in which process and organizational innovations predominate.

With regard to the ownership differences in the way firms innovate, foreign firms located in the host markets are usually expected to be more innovatively active compared to domestic firms (Frenkel et al., 2004; Garcia et al., 2013). The reason behind this lies in the fact that FDIs coming to a transition economy bring along very valuable tacit knowledge other way unavailable in the local market. It is believed that foreign-owned firms possess higher labour productivity, innovation potential, supplier and customer networks than incumbent firms when entering new markets. As a result FDI flows from developed countries towards emerging economies are expected to become important transmitters of knowledge, technology and other economic resources serving as a prerequisite for substantial economic growth and innovation progress (Frenkel et al., 2004). Foreign firms entering host markets tend to impact local labour productivity, innovativeness and economic growth of local firms (Garcia et al., 2013). However, this influence can have positive and negative direction. On the one hand, foreign firms cooperating with domestic partners enable knowledge spillovers to take place or they make the domestic firms become more competitive in order to be able to compete with foreign entrants. On the other hand, FDI could also suppress innovation propensity of domestic firms if the increased competition from foreign entrants crowds out local entrepreneurs being not able to withstand such a competition. Domestic firms being quite often locked-in in the post-Soviet economic system, as in the case of Ukraine, are less competitive than foreign new comers, which results in their lower innovation propensity.

The results of this study show that there are differences by region, sector and ownership in the way firms in Ukraine innovate. Thus, firms in the capital region Kyiv are more innovative in product innovation form, whereas those in the Western Lviv region are merely process innovators. This evidence goes in line with the results proving that Lviv region hosts merely low-tech food and beverages sector firms, which are more active in process and organizational innovations, whereas Kharkiv with the majority of high-tech machinery and equipment sector enterprises lags behind in terms of product innovations. As such, the sectoral differences are narrowed down to firms in food and beverages sector being more innovative in process and organizational innovation forms, while machinery and equipment sector firms are more prone to product innovations. Innovative firms from the machinery and equipment sector are to introduce more capital- and technology-intensive innovations. The empirical results of this study also show that the impact of absorptive capacity parameters on the innovative propensity of firms lowers in process and organizational innovations compared to the one in product innovation form. In the bordering regions, especially in Lviv, which scores quite bad in terms of investment in R&D-related activities and number of staff involved in R&D, these parameters show no impact on the firms' innovation propensity. While Kharkiv region, which is a high-tech industry centre, does not score well on these parameters either, there is a positive impact of those aspects on the innovation performance of firms in this region. And this could possibly mean that those firms that do invest in R&D and that do attract R&D-related staff innovate more. So, lower absorptive capacity will hinder firms to innovate and force the low performers out to less technology-intensive sectors, where mostly process and organizational innovation forms are possible, or even out of the market at all.

With regard to the differences by ownership, the results of the research show that foreign firms, especially green field FDIs are more innovative than domestic counterparts, which have the least active innovative performance. This finding is supported by the line of argument that green field FDIs are usually much more capital- and technology intensive, because these firms need to build their own production capacities at site. Decision to go abroad to do that in the majority of the cases is derived from the necessity to gain certain competitive advantage at the host location. Therefore, subsidiaries of MNEs need to incorporate new technology, process or even product in order to get embedded into the regional economic system at the most efficient manner and to be competitive enough to survive. As a result green field FDI firms become much more innovation prone than brown field FDIs in some cases might be even not interested to innovate if they acquire already good functioning business entity embedded into the local economic system. Within the realm of such a transition economy as Ukraine with present legacy of Soviet past, especially in Kharkiv, it is quite hard to break the old system. Therefore, building something new from scratch might be even more realistic than changing an old paradigm. However, this works quite the

opposite for domestic firms. The fact that domestic new private firms score the worst could potentially mean that domestic firms do not have enough capabilities, freedom and financial support to innovate. Whereas domestic firms with Soviet context might still have capacities from the planned economy past with regard to highly qualified R&D staff and innovation propensity of those could therefore be better. Nevertheless, when R&D activities do not get enough investment, like in the case of domestic firms, the marginal effect of these absorptive capacity parameters for innovation propensity drops drastically.

### 8. How does local institutional quality impact innovative activities of firms?

Malmberg and Maskell (2006) state that institutional setup is an important determinant of the location choice of FDIs. Foreign firms investing abroad aim at developing their competitive advantages. This could be reached through active innovation activities. Therefore, MNEs get attracted to those locations, where institutional environments enable and facilitate innovation. The same reasoning could be applied to domestic firms. Asheim and Gertler (2005) indicate that local institutional environment for domestic firms is very important when they focus on innovation as the means of increasing their competitive status with regard to foreign firms. Innovation in such a case must be based on interactions and knowledge flows between economic entities, such as customers, suppliers and competitors. The authors argue, that the transmission of tacit knowledge requires face-to-face communication and cooperation between partners who already share the same 'codes' of communication, rules and norms, fostered by a shared institutional environment. Common institutional environment becomes a one of a kind regional asset, which fosters and promotes the development of local advantage. Maskell and Malmberg (1999, p. 181) claim: "it is the region's distinct institutional endowment that embeds knowledge and allows for knowledge creation which – through interaction with available physical and human resources – constitutes its capabilities and enhances or abates the competitiveness of the firms in the region".

Different regional institutional contexts might impact to big extent innovation behaviour of firms in different regions. Thus, higher quality of institutional environment of the capital region is more likely to encourage local business agents to innovate due to reliable and supportive institutions that act as the pull factor for firms to such a metropolitan location. In the case of bordering regions institutional change might occur slower, which leads to an emergence of thick institutional frameworks. Such institutional thickness is derived by the presence of post-communist legacy within the regional development of such a transition country as Ukraine. Being locked in within the remains of path-dependent institutions, firms are neither interested, nor able to motivate.

Results of the empirical research of this dissertation show that institutional environment of the capital region does encourage local business agents to innovate, whilst institutional framework of the bordering regions affects negatively the propensity of firms pursue innovative activities in these regions. In the transition economies the capital region is first and for most the hub of opportunities, because it concentrates the best human capital, access to technologies, knowledge and information. To sustain such a trend the governments of the states are interested to support the capital region by the means of creating attractive institutional environment in the latter, which will pull firms to the capital and create good conditions for those to grow and raise in such a way the wealth of the regional and national economic systems. Bordering regions, on the other hand, receive less pressure from the government to introduce better institutional frameworks due to more focus and support directed towards the capital. In the case of Ukraine bordering regions used to play their strategic roles within the planned economy of the Soviet Union. While Kharkiv was an industrial hub with heavy industry conglomerates, Lviv was an agricultural hub with a respective infrastructure. Transition from a planned Soviet economy happens very slowly in Ukraine, which leads to the remains of the communist institutions being still present within regional economic systems. This leads to bordering regions not gaining enough attention from the decision makers, i.e. the government and policy makers to introduce institutional change. Thus, while institutions of the capital are undergoing transformations, institutional environment of the bordering regions gets only thicker from unsystematic change attempts. Thick institutional framework of the bordering regions in the form of ineffective regulations, contradictory rules and laws, targeted support of certain economic and industrial systems, neglecting potential of other industries present within the periphery regions, limits local firms in their innovation pursuits, because they lack freedom, on the one hand, and actual financial and regulative support, on the other, to innovate.

### 2. Limitations and recommendations for future research

Any research presents certain areas of limitations and as such recommendations for further studies in the field. This dissertation is not an exception, especially considering the specificity of the research area with regard to the post-Soviet state in transition. By and large, current study interferes with the following limitations and recommendations for further research.

From the *theoretical* perspective, firstly, this dissertation does not cover political economy strands of research while analysing such post-Soviet economy in transition as Ukraine from an economic geography perspective. Investigation of the catch-up stories of success of East Asia for the aims of determination of replicability of those by an economy in transition from communist times, thus is narrowed to comparison of East Asian tigers and Ukraine lacking as such holistic assessment of the Eastern European economic map from a historical perspective. This leads to stating an obvious need to research further successful Eastern European transition stories compared to the East Asian catch-up benchmark in order to identify a profound conceptualization of catch-up potential of transition states and emerging economies. Secondly, analysis of the role of institutional environment for economic growth, business development, FDI attraction and innovation enforcement is based on institutional, macroeconomic and economic geography

literature, not devoting enough attention to the legal perspective. As the aim of the enterprise survey carried out within this study was to assess the perceptions of domestic and foreign-owned firms towards institutional quality at the current region, the focus was laid on analysis of institutional context from the perspective of how business friendly, easy to get embedded in and supportive the current institutional environment for the firms located at a certain region is. Thus, further research is needed with regard to analysis of the policy related and legal issues, such as role of the government in local decision making, corruption and efficiency of the legitimacy aspects of the current legislation base and the heterogeneity of national as well as sub-national decision makers, namely main policy stakeholders. And thirdly, assessment of the location choices of FDI in Ukraine as well as innovation behaviour of local firms is not based to a larger extent on the subsidiary evolution theories; rather the focus is on a regional economics and microeconomics perspective. Therefore, it could be helpful to analyse in more detail managerial decision making, firm-based operational strategies as a pre-requisite of internationalization- and innovation-related decisions.

From the *empirical* point of view, firstly, the enterprise survey was carried out only in two sectors, namely machinery and equipment sector and food and beverages sector. The survey is representative in such a way for these two sectors. However, it cannot be claimed the same to be true for the whole economy of Ukraine. Moreover, firms were surveyed only in three regions and overall the sample of firms per region constitutes of on average 150 enterprises, only 50 of which are foreign-owned firms, which did not allow differentiating the firms between the two target sectors especially with regard to FDI location choices decision assessment. Thus, exceeding the two sectors as well as increasing an overall sample size could introduce interesting insights into the empirical analysis. Secondly, this dissertation does not represent a panel study, but is based on the empirical analysis of the enterprise survey carried out in one year. Repeating the same survey in the next coming years could uncover important transformation perspective especially concerning institutional environment study of such a post-Soviet state as Ukraine. Since informal institutions seem to be an important element of local institutional context in a transition economy and at the same time they change very slowly in comparison to formal institutions (Tridico, 2011), there is a profound need to observe institutional change as one of the basic elements of raising institutional quality. And the last but not least, the enterprise survey represents a quantitative study, likert-scale questions of which could be treated quite subjectively notwithstanding the fact of being asked referring to a specific current region a firm is located in. Therefore, introduction of qualitative case studies within the same two sectors of the three target regions for both foreign-owned and domestic firms could unleash a lot of information from the respondents, which could be accessed through the quantitative data solemnly.

### 3. Policy Implications

### 3.1. Raising the quality of institutional environment

The policy objective of this study towards the analysis of the role of local institutional environment for economic growth in a transition state is to identify possible policy implications with regard to bridging the gap between the capital and bordering regions in the differences of the respective institutional quality levels. Special attention of policy is directed towards the government support of domestic firms versus subsidiaries of MNEs as an important pre-requirement of local entrepreneurship growth. The findings of the research potentially imply the following policies based on the evidence obtained from the empirical results, applicable to the national and regional economic systems of Ukraine as a post-Soviet state in transition within the time span of the next decade.

There is a need to encourage the national government to support bordering regions in order to avoid current big scale of uneven regional development of the periphery compared to the capital. Special attention by the policy makers at the national level should be paid to the enforceability of legislation in both Kharkiv and Lviv region and intellectual property rights protection in the West. In order to reach better enforceability of legislation it is important to introduce a special monitoring mechanism, which will capture the effectiveness of target institutions, such as courts, legal chambers and unions. In such a transition state as Ukraine with the remains of the Soviet regime it is essential to monitor the effectiveness of legal bodies constantly benchmarking the latter with the local business needs aiming at maintaining of informal-formal institutional fit, as well as with the national trajectory of economic development, taking into consideration that Ukraine is an emerging market becoming an important player on the arena of global integration processes. Another important step in raising enforceability of legislation is for the national government to take into account that in Ukraine formal rules might not be violated but rather ignored in the majority of the cases, which negatively impacts integration of legitimate business culture into the society. As such, the main task of the policy makers is to introduce such an institutionalization process that will include, in the short run, declaration on the legislative level of certain norms and rules of behaviour of economic actors, which will form later definite patterns of business culture. In the long run, legitimization of these rules aiming at complete integration of the "unspoken practices" into business practices of local economic agents is important.

Concerning intellectual property rights protection, there is a need to harmonize Ukrainian intellectual property rights legislation with the international standards. This is especially relevant for the EU close region Lviv, which scores the worst on this parameter of institutional quality hosting at the same time the most of the EU firms investing in Ukraine. Having entered the WTO, Ukraine has signed up the range of international agreements on intellectual property rights protection (Cabinet of Ministers of Ukraine, 2013). However, regional disparities on the quality of

protection of intellectual property could mean that both national and regional governments have to choose region-specific over one size-fits-all policy even with regard to such a national-level institutional aspect as intellectual property rights protection. Besides creation of specialized boards in the commercial courts supervising intellectual property rights related cases, there is a need of enforcement of these advisory boards on the national level through the higher state authorities. Such system of monitoring and control could impact positively the consciousness ma business actors, which is an important element in the local business culture. Moreover, it is essential to encourage firms to cooperate with the governmental authorities so that to create a single institutional context of legal property rights protection enforcement.

Central and regional governments of Ukraine shall also work on the supplementing rather than exclusion basis. Thus, central government support should be directed not only to the capital, but also to the bordering regions in order to firstly, boost interregional cooperation of firms located in different regions and secondly, in order to foster economic growth in different parts of the country with regard to regional location-specific competitive advantage opportunities. On the national level, there should be strategic government programs and initiatives implemented with regard to micro crediting of new private SMEs and entrepreneurship promotion by the state. Local regional governments, on the other hand, should introduce special economic, financial and administrative incentives for domestic new private SMEs, because the latter emerge and develop within the specificity of a regional economic system, get embedded into certain local networks and clusters of firms and cooperate as such with local customers and suppliers. Therefore, regional governments have to focus on introduction of region-specific incentives for domestic new private SMEs growth. These can be creation of regional special free zones, tax free areas, and business incubators that will ease regional endowments of firms and lower transactions costs in the long run. In Lviv region, the policy should focus on the development of clusters, specialization and localization economies, whereas in Kharkiv region there is a need for local policies to fight existing lock-ins, post-Soviet legacy and in such a way initiate new regional trajectory.

### 3.2 FDI attraction

Legislative base of regulation of FDI activities in Ukraine currently mainly consists of such normative acts as the Law of Ukraine "On the Foreign Investment Regime", "On Investment Activities" and "On Protection of Foreign Investments in Ukraine". However, based on the empirical results of the current study, there is a need to focus not only on the current state of foreign investors who are already present in Ukraine but also on the attraction of the latter and on raising region-specific potential in doing so. Thus, the following policy implications will refer to, firstly, the ways to raise regional attractiveness of Ukraine towards FDIs, and secondly, government treatment of foreign-owned firms located in different regions of Ukraine receive.

National determinants of location choices of FDI serve as the first level criteria when a firm decides on a specific host economy. In the theoretical discussion of this dissertation on the geography of FDI national governance and national institutions stand for the (inter)national level determinants. While policy implications with regard to the institutional quality as an important prerequisite of FDI attraction on both national and regional levels will be discussed further in this chapter, the focus lies on the macroeconomic characteristics of the state. According to the main legislative base of Ukraine concerning foreign direct investment on its territory, subsidiaries of MNEs receive the following preferential treatment from the government: exemption from duty fee on the incoming property, independent decision making with regard to pricing, product sales conditions, exemption from licensing and quoting provided that the manufactured goods are certified, simplified income transfer to home countries after taxes and other obligatory fees paid, exemption from nationalization processes, compensation of property and financial losses if any, legal support in courts, while opening and closing of a legal entity (Verkhovna Rada, 2013). However, macroeconomic stability of a state is far from being assessed only on the above preferences. Thus, national governments and especially policy makers as the main decision makers have to ensure stability of legislative base, currency, tariff- and non-tariff regimes, real tax benefits for long term investors, high levels of physical and intellectual property rights protection, support of banking sector in order to ensure equal crediting conditions for foreign-owned firms, easy access to internal and external financial sources, financial support of domestic SMEs as the main customers and suppliers of a foreign subsidiary in the Ukrainian market, simplification of administrative and bureaucratic regimes.

In order to grow regional pull-in factors for foreign investors there is a need of development of strategic region-specific assets as the location advantages of the target regions by regional governments. Such strategic assets are human capital, concentrated knowledge pools, highly skilled labour and technology oriented infrastructures. This could potentially lead to the attraction of more strategic asset seeking investors, which would increase the competitiveness of certain regions. Moreover, it could possibly provide an alternative to the market seeking motivation of the majority of MNCs, since the more foreign firms enter the market, the higher is the competition and as a result the lower is the local market potential. Moreover, there is a need to encourage investing firms to serve the local market rather than use the regional economic systems as solemnly resource bases. This might possibly be achieved by the targeted development of local infrastructures, especially in Lviv region, where the tendency of incoming investors is to re-import manufactured goods abroad. By the targeted development of local infrastructures support of local SMEs by the national and regional governments in building customer-supplier networks and clusters of sector-specific firms is meant.

And the last but not least, there is a need to focus on raising national and most importantly regional institutional quality in order to attract FDIs and facilitate their embeddedness process. Concerning national institutional quality much of which has been discussed above in part 3.1 could also be mentioned here with respect to enforceability of legislation, intellectual property rights protection and central government support. Moreover, current formal institutional base covering the aspects of foreign investment in Ukraine that is explicitly expressed at the national level has been quite improved recently. This has been achieved through, firstly, creation of the State Agency of Ukraine for Investment and Development, which acts the direct institutional intermediary foreign firms can refer to when deciding whether to invest in Ukraine; secondly, enactment of state laws on protection of foreign investments in Ukraine, thirdly, issuing of disposals of the Cabinet of Ministers of Ukraine on financial support of FDIs, fourthly, harmonization of Ukrainian legislation with the EU legislation through the means of signing of bilateral strategic agreements with the EU.

However, there is still an obvious need for policy makers to pay attention to the regional institutional quality. This is especially relevant for the Eastern Kharkiv region, which in contrast to the capital region Kyiv and the Western region Lviv, does not attract foreign investors by the means of its institutional quality. Thus, regional government of Kharkiv shall focus on transformation of pre-embedded local business culture of the region, which still functions according to the post-Soviet rules of the game. Such transformation could be achieved by creation of region specific FDI incentives, such as introduction of business incubators involving both domestic and foreign firms. This could stimulate inter-firm cooperation between domestic and foreign firms, which might in the long run enforce local economic actors to break their old patterns of business activities in order to be able to compete with foreign counterparts. Moreover, there is a need to promote and support local education and research & development base of the region. Since the best engineering institute is located in Kharkiv, it is important that regional government stimulates university-business cooperation through subsidizing enterprise-based research projects between local scientists and the subsidiaries of foreign firms located in Kharkiv.

## 3.3 Enforcement of innovation propensity of firms

Boosting of innovation propensity of firms is an important task of any state in transition. This holds especially true for Ukraine as a post-Soviet state with the remains of industrialized communist economy still present. On the one hand, there is a need to change this old system for the one new one. On the other hand, innovation could serve as an effective instrument for enabling o using of current industrial potential more efficiently. The findings of this research on the innovation behaviour of firms potentially imply the following policies based on the evidence obtained from the empirical results. These policy implications concern to the most part firm-based

incentives with respect to the intensification of their innovation activities as well as institutional context playing an important role in regulating this process.

The national as well as regional governments of the state shall support domestic firms, so that the technological gap between foreign-owned and domestic firms decreases. There is a need to provide financial incentives from public and private sources, for example, venture investors, especially to domestic new private firms, which will allow them to invest more in R&D as well as training of employees as important absorptive capacity parameters. Among such financial incentives provision of tax benefits for enterprises active in innovation, subsidizing of local SMEs for the means of R&D, no-interest crediting conditions, grant financing of both enterprises and research institutes might be the most important ones. Moreover, private or venture investors that finance innovation activities of firms shall be offered a 10% tax benefit in order to attract investing into innovation related processes. This will stimulate innovation of domestic new private firms so that to become competitive enough towards their foreign counterparts.

It is important to motivate domestic firms to enlarge their R&D departments and provide adequate level of expertise of current R&D employees by indulging the demand on the market for highly competitive R&D experts. This could be done by enforcing cooperation between local universities and enterprises in such a way raising the practical applicability of research towards business needs and growing R&D platforms of enterprises. Providing financial resources for execution of such research projects involving both academia and business, as well as raising the number research institutes among higher education institutions, shall be a preliminary task of both national and regional governments of the state, because this will also increase absorptive capacity of local firms. Raising absorptive capacity of domestic companies is important in order to encourage more product innovations in high-tech sectors, because introduction of new products is essential for the whole manufacturing industry to grow. Moreover, there is a need for local governments to create high quality labour conditions for local labour force, so that employees get motivated to work in tech-related industries as highly competitive and prestigious work environments.

It is also important to establish institutionalized national priority programs concerning innovation activities of firms at the state level. This could be done through introduction of amendments to the Law "On Scientific and Technical Activities" with regard to prioritizing of science and technology development strategies as well as recovery of the system of foresight research within the scientific and technological development of the state. This will serve as a trigger for both the government to take real actions in terms of support of innovations, and for the business actors to compete for government support through the means of innovation progress. The legal framework of the state needs to provide legalized and regulated market for innovative products so that to introduce effective mechanism of commercialization of innovations adhering to

high levels of intellectual property rights protection. There could also be innovation-oriented banking system introduced with provision of bank loans against introduction of innovations.

Regional governments on their behalf shall focus on establishing of regional innovation agencies that will act as intermediaries between innovative enterprises which produce innovations and the consumers innovative products. Such agencies could then perform informational and logistic support with respect to commercialization of innovative output. Moreover, development of technoparks within regional economic systems is of a tremendous importance. These could be used as the means to foster entrepreneurship and provide informational, organizational and financial support to start-ups. By and large, the most important task for the policy makers of Ukraine is to ensure that the innovation output gets freely introduced in the market through the means of becoming a new product or technology.

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## **ANNEXES**

**ANNEX 1:** Assessment of the quality of the aspects of institutional environment (percentage: share of firms) by region

	(Very) good	Neutral	(Very) bad	Chi-Test
Enforceability of legislation and regulation policies /1	n=457/			
Kyiv region	38,6%	25,9%	35,4%	
Lviv region	17,4%	28,9%	53,7%	***
Kharkiv region	21,3%	32,0%	46,7%	
Physical property rights protection /n=458/				
Kyiv region	41,1%	23,4%	35,4%	
Lviv region	28,0%	30,0%	42,0%	**
Kharkiv region	24,7%	30,0%	45,3%	
Intellectual property rights protection /n=457/				
Kyiv region	38,7%	25,2%	36,1%	
Lviv region	18,1%	33,6%	48,3%	***
Kharkiv region	25,3%	31,3%	43,3%	
Reliability of oral contracts / agreements /n=457/				
Kyiv region	39,2%	31,6%	29,1%	
Lviv region	34,0%	38,7%	27,3%	***
Kharkiv region	26,2%	27,5%	46,3%	
Central government support /n=456/				
Kyiv region	29,1%	29,7%	41,1%	
Lviv region	10,7%	18,7%	70,7%	***
Kharkiv region	10,8%	23,0%	66,2%	
Regional and / or local government support /n=456/				
Kyiv region	31,6%	31,6%	36,7%	
Lviv region	24,7%	20,7%	54,7%	***
Kharkiv region	17,6%	25,7%	56,8%	

**ANNEX 2:** Assessment of the quality of the aspects of institutional environment (percentage: share of firms) *by type of ownership* 

	(Very) good	Neutral	(Very) bad	Chi-Test
Enforceability of legislation and regulation policies	/n=453/			
Brown field FDIs	34,4%	36,6%	29,0%	
Green field FDIs	44,8%	20,7%	34,5%	***
Domestic SMEs with Soviet context	23,4%	29,7%	46,9%	
Domestic new private SMEs	17,2%	27,0%	55,7%	
Physical property rights protection /n=454/				
Brown field FDIs	38,7%	31,2%	30,1%	
Green field FDIs	50,0%	17,2%	32,8%	***
Domestic SMEs with Soviet context	32,6%	25,6%	41,9%	
Domestic new private SMEs	20,7%	31,6%	47,7%	
Intellectual property rights protection /n=450/				
Brown field FDIs	32,3%	34,4%	33,3%	
Green field FDIs	48,3%	10,3%	41,4%	***
Domestic SMEs with Soviet context	28,6%	27,8%	43,7%	
Domestic new private SMEs	16,8%	36,4%	46,8%	
Reliability of oral contracts / agreements /n=453/				
Brown field FDIs	30,1%	43,0%	26,9%	
Green field FDIs	55,9%	25,9%	19,0%	***
Domestic SMEs with Soviet context	26,6%	33,6%	39,8%	
Domestic new private SMEs	32,8%	28,7%	38,5%	
Central government support /n=452/				
Brown field FDIs	20,4%	31,2%	48,4%	
Green field FDIs	34,5%	25,9%	39,7%	***
Domestic SMEs with Soviet context	18,1%	24,4%	57,5%	
Domestic new private SMEs	8,6%	19,5%	71,8%	
Regional and / or local government support /n=452/				
Brown field FDIs	34,4%	28,0%	37,6%	
Green field FDIs	44,8%	22,4%	32,8%	***
Domestic SMEs with Soviet context	25,2%	23,6%	51,2%	
Domestic SMEs private	12,6%	28,2%	59,2%	

**ANNEX 3:** Assessment of the quality of the aspects of institutional environment (percentage: share of firms) *by region within ownership groups* 

		(Very) good	Neutral	(Very) bad	Chi-Test
Enforceability of legislation and regulation p	olicies /n=453/	, , , , , , , , , , , , , , , , , , , ,		<i>V</i> / · · · ·	
v 2 3 1	Kyiv region	50%	44,4%	5,6%	
	Lviv region	40,0%	28,6%	31,4%	*
Brown field FDIs	Kharkiv region	22,5%	40,0%	37,5%	
	Kyiv region	65,7%	14,3%	20,0%	
	Lviv region	14,3%	35,7%	50,0%	***
Green field FDIs	Kharkiv region	11,1%	22,2%	66,7%	
	Kyiv region	39,6%	24,5%	35,8%	
	Lviv region	8,7%	34,8%	56,5%	***
Domestic SMEs with Soviet context	Kharkiv region	17,2%	31,0%	51,7%	
D OMESSIE STREET WITH SO FIRE CONTENT	Kyiv region	15,4%	28,8%	55,8%	
	Lviv region	9,8%	21,6%	68,6%	n.s.
Domestic new private SMEs	Kharkiv region	23,9%	29,6%	46,5%	
hysical property rights protection /n=454/	Kharkiv Tegion	23,770	27,070	40,570	
nysicar property rights protection/ii 13 i/	Kyiv region	50,0%	27,8%	22,2%	
	Lviv region	40,0%	22,9%	37,1%	n.s.
Brown field FDIs	Kharkiv region	32,5%	40,0%	27,5%	
Brown field 1 B15	Kyiv region	71,4%	8,6%	20,0%	
	Lviv region	21,4%	35,0%	42,9%	***
Green field FDIs	Kharkiv region	11,1%	22,2%	66,7%	
Green field FDIS	Kyiv region	41,5%	24,5%	34,0%	
	Lviv region	25,5%	29,8%	44,7%	n.s.
Domestic SMEs with Soviet context	Kharkiv region	27,6%	20,7%	51,8%	11.5.
Domestic Sivies with Soviet context	Kyiv region	17,3%			
			30,8%	51,9%	n.s.
Damastic many private CME-	Lviv region	23,5%	35,3%	41,2%	11.5.
Domestic new private SMEs	Kharkiv region	21,1%	29,6%	49,3%	
ntellectual property rights protection /n=450		22.20/	22.20/	22.29/	
	Kyiv region	33,3%	33,3%	33,3%	n.s.
D., 6.11 EDI-	Lviv region	28,6%	34,3%	37,1%	11.5.
Brown field FDIs	Kharkiv region	35,0%	35,0%	30,0%	
	Kyiv region	65,7%	14,3%	20,0%	***
a	Lviv region	21,4%	7,1%	71,4%	
Green field FDIs	Kharkiv region	22,2%	0,0%	77,8%	
	Kyiv region	43,1%	21,6%	35,3%	**
	Lviv region	13,0%	32,6%	54,3%	***
Domestic SMEs with Soviet context	Kharkiv region	27,6%	31,0%	41,4%	
	Kyiv region	17,6%	33,3%	49,0%	
	Lviv region	11,8%	43,1%	45,1%	n.s.
Domestic new private SMEs	Kharkiv region	19,7%	33,8%	46,5%	
deliability of oral contracts / agreements /n=		<u> </u>		T	
	Kyiv region	38,9%	44,4%	16,7%	
	Lviv region	28,6%	40,0%	31,4%	n.s.
Brown field FDIs	Kharkiv region	27,5%	45,0%	27,5%	
Green field FDIs	Kyiv region	60,0%	20,0%	20,0%	n.s.

	Lviv region	50,0%	42,9%	7,1%	
	Kharkiv region	44,4%	22,2%	33,3%	
	Kyiv region	34,0%	35,8%	30,2%	**
	Lviv region	23,4%	40,4%	36,2%	***
Domestic SMEs with Soviet context	Kharkiv region	17,9%	17,9%	64,3%	
	Kyiv region	30,8%	30,8%	38,5%	
	Lviv region	43,1%	35,3%	21,6%	**
Domestic new private SMEs	Kharkiv region	26,8%	22,5%	50,7%	
Central government support /n=452/					
	Kyiv region	38,9%	33,3%	27,8%	
	Lviv region	22,9%	28,6%	48,6%	n.s.
Brown field FDIs	Kharkiv region	10,0%	32,5%	57,5%	
	Kyiv region	54,3%	25,7%	20,0%	
	Lviv region	7,1%	35,7%	57,1%	***
Green field FDIs	Kharkiv region	0,0%	11,1%	88,9%	
	Kyiv region	30,2%	34,0%	35,8%	
	Lviv region	6,4%	14,9%	78,7%	***
Domestic SMEs with Soviet context	Kharkiv region	14,8%	22,2%	63,0%	
	Kyiv region	7,7%	26,9%	65,4%	
	Lviv region	5,9%	11,8%	82,4%	n.s.
Domestic new private SMEs	Kharkiv region	11,3%	19,7%	69,0%	
Regional and / or local government support /1		, ,	, <u> </u>		
200g-o-ma unu / o- 100m2 go / o- minone ouppoze / i	Kyiv region	44,4%	33,3%	22,2%	
	Lviv region	48,6%	20,0%	31,4%	**
Brown field FDIs	Kharkiv region	17,5%	32,5%	50,0%	
Brown note 1 B is	Kyiv region	57,1%	22,9%	20,0%	
	Lviv region	28,6%	28,6%	42,9%	*
Green field FDIs	Kharkiv region	22,2%	11,1%	66,7%	
Orecii ficia i Dis	Kyiv region	34,0%	34,0%	32,1%	
	Lviv region	17,0%	12,8%	70,2%	***
Domestic SMEs with Soviet context	Kharkiv region	22,2%	22,2%	55,6%	
Domestic Sivies with Soviet context					
	Kyiv region	7,7%	34,6%	57,7%	n.s.
D 1 2 2 2 2	Lviv region	13,7%	26,5%	60,8%	11.5.
Domestic new private SMEs	Kharkiv region	15,5%	25,4%	59,2%	

**ANNEX 4**: Assessment of the importance of the factors playing role in investment decision (percentage: share of firms) *by region* 

	Very Important	Important	Unimportant	Chi-Test
Lower costs (n=153)				
Kyiv region	62,3%	24,5%	13,2%	
Lviv region	44,0%	34,0%	22,0%	n.s.
Kharkiv region	56,0%	30,0%	14,0%	
Market demand (n=153)			<del>-</del>	
Kyiv region	67,9%	24,5%	7,5%	
Lviv region	54,0%	18,0%	28,0%	n.s.
Kharkiv region	58,0%	24,0%	18,0%	
Human capital / knowledge (n=153)				
Kyiv region	30,2%	45,3%	24,5%	
Lviv region	42,0%	36,0%	22,0%	n.s.
Kharkiv region	40,0%	28,0%	32,0%	
Infrastructure (n=153)				
Kyiv region	17,0%	58,5%	24,5%	
Lviv region	32,0%	24,0%	44,0%	***
Kharkiv region	24,0%	30,0%	46,0%	
Preferential policies / subsidies (n=153)				
Kyiv region	17,0%	39,6%	43,4%	
Lviv region	8,0%	14,0%	78,0%	***
Kharkiv region	6,0%	24,0%	70,0%	
Proximity to customers / suppliers $(n=15)$	i3)			
Kyiv region	28,3%	28,3%	43,4%	
Lviv region	24,0%	34,0%	42,0%	n.s.
Kharkiv region	14,0%	28,0%	58,0%	
Proximity to other foreign firms from the	e same country	(n=153)		
Kyiv region	13,2%	35,8%	50,9%	
Lviv region	30,0%	26,0%	44,0%	**
Kharkiv region	8,0%	24,0%	68,0%	
Proximity to other foreign firms from the			00,070	
Kyiv region	5,7%	39,6%	54,7%	
Lviv region	34,0%	14,0%	52,0%	***
Kharkiv region	10,0%	18,0%	72,0%	
Proximity to the EU (n=153)	20,070	10,070	, =, = , =	
Kyiv region	7,5%	41,5%	50,9%	
Lviv region	56,0%	12,0%	32,0%	***
Kharkiv region	8,0%	10,0%	82,0%	

**ANNEX 5:** Assessment of the quality of the institutional environment (percentage: share of foreign-owned firms) *by region* 

	(Very) good	Neutral	(Very) bad	Chi-Test
Enforceability of legislation and regulation policies /1	n=153/			
Kyiv region	60.4%	24.5%	15.1%	
Lviv region	34.0%	30.0%	36.0%	***
Kharkiv region	20.0%	36.0%	44.0%	
Physical property rights protection /n=153/			·	
Kyiv region	64.2%	15.1%	20.8%	
Lviv region	36.0%	26.0%	38.0%	***
Kharkiv region	28.0%	36.0%	36.0%	
Intellectual property rights protection /n=153/			<u>.</u>	
Kyiv region	54.7%	20.8%	24.5%	
Lviv region	28.0%	25.0%	46.0%	**
Kharkiv region	32.0%	28.0%	40.0%	
Reliability of oral contracts / agreements /n=153/			<u>.</u>	
Kyiv region	52.8%	28.3%	18.9%	
Lviv region	36.0%	40.0%	24.0%	n.s.
Kharkiv region	30.0%	40.0%	30.0%	
Central government support /n=153/			<u>.</u>	
Kyiv region	49.1%	28.3%	22.6%	
Lviv region	20.0%	30.0%	50.0%	***
Kharkiv region	8.0%	28.0%	64.0%	
Regional and / or local government support /n=153/			<u>.</u>	
Kyiv region	52.8%	26.4%	20.8%	
Lviv region	44.0%	22.0%	34.0%	***
Kharkiv region	18.0%	28.0%	54.0%	

**ANNEX 6:** Description of variables

Variables	N	Min	Max	Mean	Std. Deviation
Innovation overall dummy	458	0	1	,79	,411
Product innovation dummy	458	0	1	,61	,488
Process innovation dummy	458	0	1	,69	,464
Organizationalnological innovation dummy	458	0	1	,59	,492
Kharkiv region dummy	458	0	1	,34	,476
Lviv region dummy	458	0	1	,33	,470
Kiev region dummy	458	0	1	,33	,470
Domestic SMEs without FDI with Soviet dummy	454	0	1	,28	,452
Domestic new private firms dummy	454	0	1	,38	,487
Brown field FDIs dummy	454	0	1	,20	,404
Green field FDIs dummy	454	0	1	,13	,334
Food & beverages sector dummy	455	0	1	,56	,497
Machinery & equipment dummy	455	0	1	,44	,497
Number of employees	455	15	959	98,39	200,579
Share of employees with higher education degree	450	0	100	68,44	29,837
Share of employees involved in R&D	455	0	75	7,00	12,517
Share of foreign employees among staff	458	0	50	1,66	5,223
Share of sales spent on R&D	458	0	60	4,158	7,8607
Share of sales spent on trainings of highly skilled staff	458	0	70	1,68	4,604
Institutional quality dummy	451	0	1	,23	,419
Inter-firm cooperation dummy	458	0	1	,53	,500

Source: Provided by author

**ANNEX 7:** Correlation matrix

	1	2	3	4	5	6	7	8	9	10	11	12
Region (1)	1											
	458											
Ownership (2)	,009	1										
	(,855)											
	454	454										
Sector (3)	-,028	,320**	1									
	(,555)	(,000,										
	455	451	455									
Log of # of employees (4)	-,131**	-,184**	-,065	1								
	(,005)	(000,)	(,169)									
	455	451	452	455								
% of employees with a	,001	,051	-,056	,000	1							
higher education degree (5)	(,982)	(,278)	(,234)	(,997)								
	450	446	447	447	450							
% of employees involved in	,165**	-,134**	-,283**	-,127**	,104*	1						
R&D (6)	(,000)	(,004)	(000,)	(,007)	(,028)							
	455	451	452	453	447	455						
% of foreign employees (7)	-,017	-,232**	-,163**	-,055	,004	,242**	1					
	(,718)	(000,)	(000,)	(,243)	(,930)	(000,)						
	458	454	455	455	450	455	458					
% of sales spent on R&D (8)	-,145**	-,063	-,235**	,183**	,057	,334**	,119*	1				
	(,002)	(,178)	(,000,	(,000)	(,230)	(,000,	(,011)					
	458	454	455	455	450	455	458	458				
% of sales spent on trainings	-,052	-,174**	-,100*	,128**	-,090	,082	,132**	,372**	1			
of highly skilled staff (9)	(,269)	(,000,	(,033)	(,006)	(,056)	(,080,	(,005)	(,000)				
	458	454	455	455	450	455	458	458	458			
Institutional quality	-,177**	-,241**	-,056	,178**	-,030	-,011	,078	,073	,119*	1		
composite indicator (10)	(,000)	(,000,	(,236)	(,000)	(,523)	(,816)	(,097)	(,124)	(,011)			
1	451	447	448	448	443	448	451	451	451	451		
% of domestic suppliers out	,116*	-,654**	-,251**	,097*	-,061	,272**	,196**	,141**	,152**	,143**	1	
of all suppliers of foreign	(,015)	(,000)	(,000)	(,044)	(,209)	(,000)	(,000)	(,003)	(,001)	(,003)		
customers (11)	434	430	433	432	426	431	434	434	434	427	434	
% of foreign suppliers out of	-,055	-,660**	-,220**	,016	-,063	,229**	,156**	,142**	,199**	,177**	,640**	1
all suppliers of domestic	(,243)	(,000)	(,000)	(,738)	(,189)	(,000)	(,001)	(,003)	(,000)	(,000)	(,000)	
customers (12)	446	442	445	444	438	443	446	446	446	439	427	446

Source: Provided by author Note: Significance (2-tailed) in the brackets means \*significant at the 0.05 level, \*\*significant at the 0.01 level.

ANNEX 8: Innovation performance of foreign and domestic firms (percentage: share of firms) by region

	by region					
		Yes	No	Chi-Test		
Any kind of innovation activities /n=4	58/					
	Kyiv region	78,5%	21,5%			
	Lviv region	85,3%	14,7%	**		
]	Kharkiv region	72,0%	28,0%			
<b>Product innovation</b> /n=458/						
	Kyiv region	71,5%	28,5%			
	Lviv region	56,7%	43,3%	***		
]	Kharkiv region	54,0%	46,0%			
<b>Process innovation:</b> /n=458/						
	Kyiv region	68,4%	31,6%			
	Lviv region	77,3%	22,7%	***		
]	Kharkiv region	60,7%	39,3%			
Organizational innovation /n=458/						
	Kyiv region	63,3%	36,7%	•		
	Lviv region	60,7%	39,3%	n.s.		
	Kharkiv region	54,0%	46,0%			

**ANNEX 9:** Innovation performance of firms (percentage: share of firms) by type of ownership

	Yes	No	Chi-Test
Any kind of innovation activities /n=454/			
Brown field FDIs	83,9%	16,1%	
Green field FDIs	91,4%	8,6%	***
Domestic SMEs without FDI with Soviet context	79,8%	20,2%	
Domestic new private SMEs	70,1%	29,9%	
Product innovation /n=454/			
Brown field FDIs	67,7%	32,3%	
Green field FDIs	86,2%	13,8%	***
Domestic SMEs without FDI with Soviet context	65,9%	34,1%	
Domestic new private SMEs	44,3%	55,7%	
<b>Process innovation:</b> /n=454/			
Brown field FDIs	79,6%	20,4%	
Green field FDIs	89,7%	10,3%	***
Domestic SMEs without FDI with Soviet context	63,6%	36,4%	
Domestic new private SMEs	59,2%	40,8%	
Organizational innovation /n=454/			
Brown field FDIs	65,6%	34,4%	
Green field FDIs	79,3%	20,7%	***
Domestic SMEs without FDI with Soviet context	56,6%	43,4%	
Domestic new private SMEs	50,6%	49,4%	

**ANNEX 10:** Share of sales spent by firms that innovate on R&D (percentage: share of firms) by region

/n=313/	No spending on R&D	Spending on R&D up to 10% of sales	Spending on R&D more than 10% of sales	Chi-Test
Kyiv region	31,1%	46,2%	22,7%	
Lviv region	62,5%	30,2%	7,3%	***
Kharkiv region	37,8%	53,1%	9,2%	

Source: Provided by author

Note: \*Significant at the 0.10 level; \*\*Significant at the 0.05 level; \*\*\*Significant at the 0.01 level.

**ANNEX 11:** Share of sales spent by firms that innovate on R&D (percentage: share of firms) by type of ownership

/n=310/	No spending on R&D	Spending on R&D up to 10% of sales	Spending on R&D more than 10% of sales	Chi-Test
Brown field FDIs	35,2%	56,3%	8,5%	
Green field FDIs	34,8%	47,8%	17,4%	
Domestic SMEs without FDI with Soviet context		35,6%	14,4%	n.s.
Domestic new private SMEs	45,6%	38,8%	15,5%	

Source: Provided by author

Note: \*Significant at the 0.10 level; \*\*Significant at the 0.05 level; \*\*\*Significant at the 0.01 level.

**ANNEX 12:** Share of R&D staff among employees of firms that innovate (percentage: share of firms) by region

/n=346/	No R&D staff	Share of R&D staff up to 10% of employees	Share of R&D staff more than 10% of employees	Chi-Test
Kyiv region	36,2%	39,7%	24,1%	
Lviv region	68,0%	19,2%	12,8%	***
Kharkiv region	31,4%	23,8%	44,8%	

Source: Provided by author

Note: \*Significant at the 0.10 level; \*\*Significant at the 0.05 level; \*\*\*Significant at the 0.01 level.

**ANNEX 13:** Share of R&D staff among employees of firms that innovate (percentage: share of firms) by type of ownership

/n=343/	No R&D staff	Share of R&D staff up to 10% of employees	Share of R&D staff more than 10% of employees	Chi-Test
Brown field FDIs	28,4%	36,5%	35,1%	
Green field FDIs	33,3%	33,3%	33,3%	
Domestic SMEs without FDI with Soviet context	60,2%	26,5%	13,3%	***
Domestic new private SMEs	50,8%	<i>'</i>	28,3%	

Source: Provided by author

Note: \*Significant at the 0.10 level; \*\*Significant at the 0.05 level; \*\*\*Significant at the 0.01 level.

**ANNEX 14:** Share of sales spent by firms that innovate on trainings for highly skilled staff (percentage: share of firms) *by region* 

/n=231/	No spending on trainings	Spending on trainings up to 10% of sales	Spending on trainings more than 10% of sales	Chi-Test
Kyiv region	35,8%	57,8%	6,4%	
Lviv region	47,4%	50,0%	2,6%	n.s.
Kharkiv region	50,0%	47,6%	2,4%	

Source: Provided by author

Note: \*Significant at the 0.10 level; \*\*Significant at the 0.05 level; \*\*\*Significant at the 0.01 level.

**ANNEX 15:** Share of sales spent on trainings for highly skilled staff (percentage: share of firms) by type of ownership

/n=230/	No spending on trainings	Spending on trainings up to 10% of sales	Spending on trainings more than 10% of sales	Chi-Test
Brown field FDIs	24,1%	72,2%	3,7%	
Green field FDIs	30,8%	64,1%	5,1%	
Domestic SMEs without FDI				***
with Soviet context	51,5%	44,1%	4,4%	
Domestic new private SMEs	56,5%	39,1%	4,3%	

Source: Provided by author

Note: \*Significant at the 0.10 level; \*\*Significant at the 0.05 level; \*\*\*Significant at the 0.01 level.

# ANNEX 16. Questionnaire for domestic firms

Name of the company				
Name, address and telephone of the production site of your firm in Ukraine, which this questionnaire refers to				
Name of the respondent				
Position and department of the respondent				
Year of the start of work of the respondent at the firm				
Previous place of work of the respondent				
BLOCK A: Fact sheet	b) Has your company be	en privatized?		
A1. Locations of your company in Ukraine (oblast):	□ Yes □ No c) If yes, when			
a) Headquarter: b) Production site(s): c) Other office(s):	A7. a) Is your compacompany?	iny in Ukraine	a publicl	y traded
Please choose one production site this questionnaire refers to (please think of this production site and office	<ul><li>☐ Yes</li><li>☐ No</li><li>b) If yes, please name th</li></ul>	e stock exchange	е	
functions related to it only when answering the following questions) Location of this production site	A8. a) Please name the r terms of sales when yo Ukraine			
A2. a) When did your company start its operations in Ukraine?	b) Please name the me terms of sales in Ukraine c) Please indicate the category in Ukraine in 2	e in 2011: share of sales		
b) When did this production site start its operations in Ukraine?	A9. Please specify pro		ır firm in	Ukraine
A3. a) Does your firm in Ukraine have subsidiaries abroad:	regarding the share in each total of 100%) components %			
□ Yes □ No b) If yes, please indicate where	final products%	customized prod		
c) Is your firm a part of a business group?  Yes No	=100%	,	=100	
d) If yes, please indicate which one		•		
A4. Please indicate what is suitable for this production site:	A10. In the last three yea		in Ukrain	e?
A4. Please indicate what is suitable for this production site: (only one answer)	(multiple answers possible	,	Jkraine	Abroad
☐ Your firm's bought existing factory as your future production	applied for a patent			
site □ Your firm's built a new production site	registered an industrial de	sign		
- Four Initia built a new production site	registered a trademark			
A5. a) What is the ownership structure of your company in	claimed copyright			
Ukraine? (only one answer)	A11. Please roughly i	ndicate the follo	owina inf	formation
□ 100% Ukrainian owner State ownership %	regarding employment of			omunom
□ Ukrainian company with FDI:	a) Employees at the end	of 2011 of the pr	oduction	
Share of FDI%	site of the firm_ b) Hired in 2011 at the p	roduction site	at the	•
□Joint venture:	firm	oduction site	at <i>th</i> e	<i>‡</i>
Share of FDI%  b) Please specify the nationality of the main foreign	c) Left in 2011 the produ	ction sitet	the firm	
owner				
	A12. Please indicate the		oyees of	your firm
A6. a) Is your firm in Ukraine a spin-off of a state	in Ukraine in the following R&D	Engineers		
enterprise? □ Yes □ No	Sales & Marketing	Production	workers	
TES     NO				

A13. Please indicate the % of employees of your firm in Ukraine having respective education:	B2. In what fields does your firm face the most fierce
Lunior MA+	competition in Ukraine: (multiple answers possible)  □ Price □ Brand
specialist BA PhD	<ul><li>□ Price</li><li>□ Brand</li><li>□ Quality</li><li>□ Government support</li></ul>
%%%%%	□ Labour
=100% A14. Please provide us with some key figures of your firm in Ukraine:	B3. Which of the following management practices
a)Total sales in 2011: in million UAH b)Sales growth rate 2010-2011:%	does your firm in Ukraine implement: (multiple answers possible)
c)The share of spending for personnel (incl. wages and	☐Benchmarking with the most successful domestic/foreign firms in Ukraine
salaries):% of sales	Benchmarking with the most successful foreign firms in
d)The share of spending on training programmes (both in-	international markets
house and external):% of sales	☐ International accounting practices (GAAP/IFRS)
e)The share of spending on R&D:% of sales	□Quality certification (e.g. ISO 9000, ISO 9001, ISO
A15. How were the sales of your firm in Ukraine (including	14000, ISO 14001, CE, HACCP, GMP etc.)
internal sales) distributed to domestic and international	D4 Which one of the following statements is most
markets in 2011?	B4. Which one of the following statements is most suitable to describe the strategic orientation of your
% current oblast in Ukraine % Eastern European % other oblasts in Ukraine EU countries	firm in Ukraine? (only one answer)
% Russia % other EU countries	☐ Aim at short-term opportunities in established markets
% other CIS countries % rest of the world	□ Focus on innovation
= 100%	☐ Just respond to incoming orders
A16. If your firm exports now, please provide us with the	☐ Follow emerging trends
information regarding your firm's export activities:	☐ Set new market trends with new brands and products
a) the year when your firm in Ukraine started	☐ Enter specialized markets with weak competition
exporting	B5. What is the strategy of your firm in Ukraine for
<ul> <li>b) to how many countries does your firm in Ukraine currently export</li> </ul>	the next 5 years? (multiple answers possible)
c) If you firm does not export now, did it use to export in	□ Expansion in present oblast
the past?	□ Downsizing in present oblast
□ Yes □ No	□ Relocation to other oblast(s)
A47 Diago indicate above of calco of view firms in Ultraine	☐ Abandon production in Ukraine
A17. Please indicate share of sales of your firm in Ukraine in 2011 according to the following categories in domestic	☐ Do not change anything / leave everything as it is
(D) and international (I) markets respectively.	
D I	BLOCK C: Business environment
% OEM: products manufactured by your firm in Ukraine according to design	C1. a) Is your firm in Ukraine located in a special
specifications provided by buyers or parent	(free) economic zone, territory of priority
company	development or industrial park: (only one answer)
% ODM: products developed and designed	☐ Yes, special (free) economic zones
by your firm in Ukraine according to performance requirements of buyers or	☐ Yes, territory of priority development
parent company	☐ Yes, industrial park
% OBM: products developed and designed	□ No
by your firm in Ukraine and sold under own brand	b) If yes, please name it
=100% =100%	
BLOCK B: Competition and strategy	C2. Has your firm in Ukraine benefited from any of
	the following tax privileges and financial incentives
B1. Please assess to what extent the competition	during the last 5 years in present location: (multiple
from the following firms has affected your firm's daily	answers possible)  ☐ Decreased registration fee
activities in Ukraine in the last three years: $(1 - to a)$	☐ Decreased income tax
no extent; 5 – to a great extent)	☐ Decreased VAT
Competition from domestic firms in present 1 2 3 4 5 oblast in Ukraine	☐ Exemption from taxation
Competition from domestic firms in the other 1 2 3 4 5	☐ Exemption from government duties
oblast(s) in Ukraine	☐ Decreased import tariffs
Competition from foreign firms in present 1 2 3 4 5	☐ Government subsidies
oblast in Ukraine	□ No
Competition from foreign firms in the other 1 2 3 4 5	
oblast(s) in Ukraine	C3. When your firm opened its production site in
Competition from foreign firms outside of 1 2 3 4 5	present oblast did it receive any financial help / use
Ukraine	any preferential policy from the government?

□ Yes □ No		Regulations concerning the processes of investment and opening of the legal entity	12345
C4. Has your firm in Ukraine received any o	f the	Labour law	12345
following kinds of government support con		Trade union regulations	12345
your export activities: (multiple answers pos		Tariffs and taxes regulations	12345
☐ Guarantees of export support		Banking and credit regulations	12345
☐ Credits provided to the foreign partners for €	export	Planning and land use change decisions	12345
support of your firm in this foreign market	- <b>-</b>	. J	
□ Political lobbying		C10. Do you know any other firms, which	ch had to
☐ Training provided by the government		make gifts or informal payments to public of	
☐ Financing of participation in exhibitions		"get things done" with regard to custor	ns, taxes,
□ No		licenses, regulations, services etc.	
		□ No □ Yes	
C5. Please assess to what extent the follow			
hinder your firm's export activities in Ukrain	n <b>e</b> (1 – to a	C11. Please assess whether people living in	the
no extent, 5 – to a great extent):		region where your company is located in Uk	kraine
Low government support of export activities	12345	would give priority to: (only one answer in ea	nch pair)
Drawbacks of Ukrainian export regulations	12345	a) □ person's needs and rights OR □ collective	e well-
Long timing of customs clearance	12345	being	
Difficulty and long timing of VAT refund	12345	b)   recognition for outstanding achievements	OR □
High cost of cargo transportation	12345	harmony in the relationships (incl. business rela	
Difficulties of compliance with international	12345	and serving to others	ationio inpo)
standards		c) □ norms and rules, orderliness and consiste	nov OP □
Other, please specify		·	iicy OR 🗆
00 51 41 114 6 41		experimentation and innovation d) □ the authority of one's position OR □ one's	ability and
C6. Please assess the quality of the			ability and
aspects of institutional environment in location now: (1- very low quality, 5 - very high		contribution	
Enforceability of legislation and regulation	12345	e) □ incremental development OR □ actual der	
policies	12040	f) □ humility and flexibility OR □ pride and pers	
Physical property rights protection	12345	g) □ keeping time free for fun OR □ moderation	n and
Intellectual property rights protection	12345	having few desires	
Intellectual property rights protection Reliability of oral contracts / agreements	12345	•	
Intellectual property rights protection Reliability of oral contracts / agreements Central government support	1 2 3 4 5 1 2 3 4 5	BLOCK D: Innovation	
Intellectual property rights protection Reliability of oral contracts / agreements	12345	BLOCK D: Innovation	any of the
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workplace organisation ☐ Yes ☐ No			ion, initiated b	y the er	nployee	es withir	the
Implementation of a new organisation meth	nod in the	production	n process				
external relations  Yes  No	ia (alagaa sa	External li	nnovation	Dome	estic		Foreign
b) If no, please choose the reason for th to E1 afterwards):	is (piease go			firr	n		firm
☐ No autonomy from the parent company				<del>,</del>		<del>**</del>	
☐ No sufficient financing				oblas e	.⊑	oblas ine	r e in
☐ Lack of cooperation with a supplier and/o	or customer			rain	t(s)	ent o Jkra	other oblast(s) in Ukraine
□ No need				present oblast in Ukraine	other oblast(s) in Ukraine	present oblast in Ukraine	~ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
D2. Please rate the importance of follow	ing reasons	Cooperatio	n with a	<u> </u>			
for your firm in Ukraine to innovate? (1-		supplier					
5- very important)		Cooperatio customer	n with a				
The rising cost of production	12345	Cooperatio	n with a				
Market competition	12345	technologic					
Standards set by local authorities	12345	provider Cooperatio	n with a				
Government policies	12345	competitor	ii wiiii a				
D3. Please indicate the main sources of	f financing of	b) Does	your firm				
your firm's innovation activities in Ukr			institute in o	rder to	introdu	ice inno	ovations
answers possible)		☐ Yes ☐	□NO please indica	to whic	sh one		
☐ Own finance / undistributed profit of your	firm in	c) ii yes, i	piease iliuica	ite will	ii one_		
Ukraine  ☐ Own finance / undistributed profit of the i	mothor						
company / foreign investor-company	nomer						
☐ Investments from the investors abroad		<b>BLOCK E</b>	: Customer-s	supplie	r relatio	ns	
☐ Investments from the investors in current		E1 Place	e indicate the	o chara	of the	cupplic	re of vo
☐ Investments from the investors in other of	blast(s) in		raine in term				
Ukraine □ Banking credits			categories:			о. ос.р	, · · ·
☐ Venture capital / business angels		_					
<b>3</b>					rent ast in	other oblast(s)	in
D4. a) Which of the following internal			total		aine	Ukraine	
sources is your firm in Ukraine using the		Foreign	9	<b>6</b> =	% -	٠ %	+
chosen in D1? (multiple answers possible In-house innovation	)	company Ukrainian				 +%	
☐ Own R&D in present location		Total	100%			+% + %	
□ R&D at the corporate network		10101	,	<u> </u>		^	
EQ Disease was side we wish the informati		4 !		<b>f</b>	<b>6</b> :		4! !4
E2. Please provide us with the informati in Ukraine (one domestic firm and one for		most impor	tant supplier	s or yo	ur tirm	s proai	iction sit
	o. o.g,.		Domestic s	upplie	For	eign sı	upplier
			in Ukra			in Ükra	
a) Location (oblast, city / town)					_		
b) Nationality					l		
<ul><li>c) Start of cooperation (year)</li><li>d) What product does this supplier sup</li></ul>	anly to the produc	ction sito?			-		
e) This supplier supplies to the product	ipiy to the produc	Clion Site:	☐ General			eneral	
o, rino supplier supplies to the product	tion site the follo	wina:				ponents	3
	tion site the follo	wing:		;	com		
	tion site the follo	wing:	components  Machines			achines	
	tion site the follo	wing:	components  Machines equipment	and	□ Ma equi	achines pment	and
	tion site the follo	wing:	components  ☐ Machines equipment ☐ Technolog	and gical	□ Ma equi □ Te	achines pment echnolog	and gical
f) is this supplier legally linked to your	tion site the follo	owing:	components  Machines equipment Technolog core compo	and gical nents	□ Ma equi □ Te core	achines pment echnolog compo	and gical nents
f) Is this supplier legally linked to your	tion site the follo	-	components  Machines equipment Technolog core compo	and gical	□ Ma equi □ Te core	achines pment echnolog	and gical
f) Is this supplier legally linked to your g) The production site provides your m the information about / to	tion site the follo	-	components  Machines equipment Technolog core compo	and gical nents	□ Ma equi □ Te core	achines pment echnolog compo	and gical nents
g) The production site provides your me the information about / toincrease production speed / reliability	tion site the follo	-	components  Machines equipment Technolog core components	and gical nents No	□ Ma equi □ Te core	achines pment echnolog compo Yes	and gical nents No
g) The production site provides your me the information about / toincrease production speed / reliabilitypossible improvements of products	tion site the follo	-	components  Machines equipment Technolog core components Yes Yes	and gical nents No No	□ Maequi □ Tecore	achines pment echnolog compo Yes Yes Yes	and gical nents No
g) The production site provides your me the information about / toincrease production speed / reliabilitypossible improvements of productssolution of technical problems	tion site the follo company? ost important su	ipplier with	components  Machines equipment Technolog core components	and gical nents No	□ Maequi □ Tecore	achines pment echnolog compo Yes	and gical nents No
g) The production site provides your me the information about / toincrease production speed / reliabilitypossible improvements of productssolution of technical problems h) The production site provides this info	tion site the follo company? ost important su	ipplier with	components  Machines equipment Technolog core components Yes Yes Yes Yes	gical nents No No	□ Mi equi □ Te core □ `	achines pment echnolog compo Yes Yes Yes Yes	and gical nents No No
g) The production site provides your me the information about / toincrease production speed / reliabilitypossible improvements of productssolution of technical problems	tion site the follo company? ost important su	ipplier with	components  Machines equipment Technolog core components Yes Yes	and gical nents No No	□ Mi equi □ Te core □ ``	achines pment echnolog compo Yes Yes Yes	and gical nents No

exchange of staff or training	machines/production equipment	Ī	□ Yes	□ No	□ Yes	□ No	
exchange of ideas and experience   Yes   No   Yes   No     i) How does the supplier mainly receive the necessary blueprints for products or components: (only one answer)   Fully provided by your firm to the supplier	· · · · · · · · · · · · · · · · · · ·			_			
i) How does the supplier mainly receive the necessary blueprints for products or components: (only one answer)  Fully provided by your firm to the supplier  Design is sold or licensed to the supplier  Co-development with supplier  Provision of general specifications by your firm, design by supplier  Wholly developed by the supplier  J) The production site's relationship with the most important supplier has helped your firm in Ukraine to: improve your product quality reduce your product quality reduce your products or make changes in existing items  Wholly developed by the supplier  D) The production site's relationship with the most important supplier has helped your firm in Ukraine to: improve your product quality reduce your product ocot improve your responsiveness to requests for volume changes design new products or make changes in existing items  Wholly developed yes No							
Fully provided by your firm to the supplier Design is sold or licensed to the supplier Co-development with supplier Provision of general specifications by your firm, design by supplier Wholly developed by the supplier  J) The production site's relationship with the most important supplier has helped your firm in Ukraine to:improve your product qualityreduce your production costimprove your responsiveness to requests for volume changesdesign new products or make changes in existing items  k) Please choose which of the following reasons would make the switch to another supplier in Ukraine difficult? Customized products Dominant market position Derivation letworks (trustful relationships) Contacts with the government  E3. To whom does your firm in Ukraine supply produced products: Customer (people)  E4. Please indicate the share of customers of your firm in Ukraine in terms of sales value in the following the firm in Ukraine in terms of sales value in the firm in Ukraine in terms of sales value in the firm in Ukraine in terms of sales value in the firm in Ukraine in terms of sales value in the firm in Ukraine in terms of sales value in the firm in Ukraine in terms of sales value in the firm in Ukraine in terms of sales value in the firm in Ukraine in terms of sales value in the firm in Ukraine in terms of sales value in the firm in Ukraine in terms of sales value in the firm in Ukraine in terms of sales value in the firm in Ukraine firm firm firm firm firm firm firm firm		uenrints	100	<u> </u>	100	_ 110	1
Fully provided by your firm to the supplier Design is sold or licensed to the supplier Co-development with supplier Provision of general specifications by your firm, design by supplier Wholly developed by the supplier  j) The production site's relationship with the most important supplier has helped your firm in Ukraine to:improve your product qualityreduce your production costimprove your responsiveness to requests for volume changesimprove your responsiveness to requests for volume changesdesign new products or make changes in existing items  k) Please choose which of the following reasons would make the switch to another supplier in Ukraine difficult? Customized products Dominant market position Personal networks (trustful relationships) Contacts with the government  E3. To whom does your firm in Ukraine supply produced products: Customer (company) Consumer (people)  E4. Please indicate the share of customers of your firm in Ukraine in terms of sales value in the company Ukrainian firm% =% +% +% +% foreign% foreign% foreign% +% +% +% foreign% foreign% foreign% +% +% +% foreign% foreign% foreign% foreign% foreign% +% +% +% foreign% foreign		иорино					
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Co-development with supplier Provision of general specifications by your firm, design by supplier Wholly developed by the supplier  j) The production site's relationship with the most important supplier has helped your firm in Ukraine to:improve your product qualityreduce your responsiveness to requests for volume changesimprove your responsiveness to requests for volume changesdesign new products or make changes in existing items k) Please choose which of the following reasons would make the switch to another supplier in Ukraine difficult? Customized products Dominant market position Personal networks (trustful relationships) Contacts with the government  E3. To whom does your firm in Ukraine supply produced products: Customer (company) Consumer (people)  E4. Please indicate the share of customers of your firm in Ukraine in towns of sales yellow in the							
Provision of general specifications by your firm, design by supplier Wholly developed by the supplier j) The production site's relationship with the most important supplier has helped your firm in Ukraine to:improve your product qualityreduce your production costimprove your responsiveness to requests for volume changesdesign new products or make changes in existing items k) Please choose which of the following reasons would make the switch to another supplier in Ukraine difficult? Customized products Dominant market position Personal networks (trustful relationships) Contacts with the government  E3. To whom does your firm in Ukraine supply produced products: Customer (company) Consumer (people)  E4. Please indicate the share of customers of your firm in Ukraine in terms of calca value in the							
Wholly developed by the supplier  j) The production site's relationship with the most important supplier has helped your firm in Ukraine to:improve your product qualityreduce your production costimprove your responsiveness to requests for volume changesdesign new products or make changes in existing items   Yes		oplier					
j) The production site's relationship with the most important supplier has helped your firm in Ukraine to:improve your product qualityreduce your production costimprove your responsiveness to requests for volume changesdesign new products or make changes in existing items k) Please choose which of the following reasons would make the switch to another supplier in Ukraine difficult? Customized products Dominant market position Personal networks (trustful relationships) Contacts with the government  E3. To whom does your firm in Ukraine supply produced products: Customer (company) Consumer (people)  E4. Please indicate the share of customers of your firm in Ukraine in terms of sales value in the light of the following reasons would make the supply produced products: Ukraine oblast in Ukraine oblast in Ukraine oblast in Ukraine abrough the firm in Ukraine in terms of sales value in the light of the following reasons would make the supply produced products:    Customer (company)							
improve your product qualityreduce your production costimprove your responsiveness to requests for volume changesdesign new products or make changes in existing items   Yes		ant					1
reduce your production costimprove your responsiveness to requests for volume changesdesign new products or make changes in existing items   Yes	supplier has helped your firm in Ukraine to:						
improve your responsiveness to requests for volume changesdesign new products or make changes in existing items   Yes	improve your product quality		□ Yes	□ No	□ Yes	□ No	
design new products or make changes in existing items    Yes	reduce your production cost		□ Yes	□ No	□ Yes	□ No	
k) Please choose which of the following reasons would make the switch to another supplier in Ukraine difficult?  Customized products  Dominant market position  Personal networks (trustful relationships)  Contacts with the government  E3. To whom does your firm in Ukraine supply produced products:  Customer (company)  Consumer (people)  E4. Please indicate the share of customers of your firm in Ukraine in terms of sales value in the	improve your responsiveness to requests for volume chang	jes	□ Yes	□ No	☐ Yes	□ No	
switch to another supplier in Ukraine difficult?  Customized products  Dominant market position  Personal networks (trustful relationships)  Contacts with the government  E3. To whom does your firm in Ukraine supply produced products:  Customer (company)  Consumer (people)  E4. Please indicate the share of customers of your firm in Ukraine in terms of sales value in the			□ Yes	□ No	☐ Yes	□ No	
Customized products  Dominant market position  Personal networks (trustful relationships)  Contacts with the government  E3. To whom does your firm in Ukraine supply produced products:  Customer (company)  Consumer (people)  E4. Please indicate the share of customers of your firm in Ukraine in terms of sales value in the current other oblast in Ukraine ukraine abrout total ukraine in terms of sales value in the current other oblast in Ukraine ukraine abrout total ukraine uk		nake the					
Dominant market position  Personal networks (trustful relationships)  Contacts with the government  E3. To whom does your firm in Ukraine supply produced products:  Customer (company)  Consumer (people)  E4. Please indicate the share of customers of your firm in Ukraine in terms of sales value in the current other oblast in Ukraine ukraine abrout company  Ukrainian firm% =% +							
Personal networks (trustful relationships)  Contacts with the government     Yes			□ Yes	□ No	□ Yes	□ No	
Contacts with the government    Yes   No   Yes   No				□ No		□ No	
E3. To whom does your firm in Ukraine supply produced products:  □ Customer (company) □ Consumer (people)  E4. Please indicate the share of customers of your firm in Ukraine in torms of sales value in the				_			
produced products:  □ Customer (company) □ Consumer (people)  E4. Please indicate the share of customers of your firm in Ukraine in terms of sales value in the	Contacts with the government		☐ Yes	□ No	□ Yes	□ No	
E4. Please indicate the share of customers of your firm in Ukraine in torms of sales value in the	produced products:  ☐ Customer (company)		to	obla	st in oblast	(s) in	<b>-</b> ad
E4. Please indicate the share of customers of your    Company	□ Consumer (people)	Foreign		0/ _	0/ т	0/ 1	0/
firm in Ukraino in torms of salos valuo in the Oklamian IIII/6  /6   +/6   -	E4. Blooce indicate the chare of customers of your	company			^o		-70
IIIII III Ukiaile III teiliis Ul Sales value III tile Total 4000/ - 0/ ± 0/ ±		Ukrainian			_% +		_%
following categories:		Total	10	00% = _	% +	_% +	_%

E5. Please provide us with information regarding your firm's two most important customers of your firm's production site in Ukraine (one domestic firm and one foreign firm):

	Domestic in Uk			customer kraine
a) Location (oblast, city / town)				
b) Nationality				
c) Start of cooperation (year)				
d) What product does your firm in Ukraine sell to this customer?				
e) Is this customer legally linked to your company?	☐ Yes	□ No	□ Yes	□ No
f) This customer provides the production site with information				
about / to				
increase production speed / reliability	□ Yes	□ No	□ Yes	□ No
possible improvements of products	□ Yes	□ No	□ Yes	□ No
solution of technical problems	□ Yes	□ No	□ Yes	□ No
g) This customer provides this information through:				
blueprints and manuals	□ Yes	□ No	□ Yes	□ No
product samples	□ Yes	□ No	□ Yes	□ No
machines/production equipment	□ Yes	□ No	□ Yes	□ No
exchange of staff or training	□ Yes	□ No	□ Yes	□ No
exchange of ideas and experience	□ Yes	□ No	□ Yes	□ No
h) How does the production site mainly receive the necessary				
blueprints for products or components: (only one answer)				
Fully provided to your firm by the customer		]		
Design is purchased or licensed from the customer		]		
Co-development with the customer		]		
Provision of general specifications by the customer, your design		]		
☐ Wholly developed by your firm				
i) The production site's relationship with the most important				
customer has helped your firm in Ukraine to:				
improve your product quality	□ Yes	□ No	□ Yes	□ No

reduce your production costimprove your responsiveness to requests fdesign new products or make changes in e j) Please choose which of the following re switch to another customer in Ukraine dif Customized products Dominant market position Personal networks (trustful relationships) Contacts with the government	existing items easons would make	Yes
In this section under technical highly skilled engineers and employees engaged in R&D ar under non-technical highly skilled so managers and employees engaged in sales & are meant.  F1. Please assess the availability of skilled staff in the local labour market in Ul	of staff (T) er er meant; Te staff (NT) No er marketing Fe sufficiently	F5. Please indicate what share of all of the trainings of your firm in Ukraine do the following groups of employees receive:  Fechnical highly skilled staff%  Non-technical highly skilled staff%  Production workers%  =100%  F6. What kinds of trainings does your firm in Ukraine provide to technical highly skilled staff (T), non-echnical highly skilled staff (NT) and production workers (PW)? (multiple answers possible)
(1 - very bad, 5 - very good)Managers1 2 3 4 5EngineersSales&1 2 3 4 5ProductionMarketingworkersR&D1 2 3 4 5	1 2 3 4 5 Co 1 2 3 4 5 Jo se	Coaching/mentoring
F2. What is the percentage/number of forei	cii Tr	circles  Training by your firm's own trainers   □ □ □
employees amongst your frim's highly skil employees in Ukraine in total	led tra	Training by trainers from specialized  raining agencies Sending to conferences, workshops,
	Se in:	rade fairs and lectures Sending to a university/research Institution and/or technical school
F3. What is the recruitment strategy of yo the highly skilled staff in present location answers possible)  Recruitment of the graduates from the universities  "from the universities in present loca" % from other universities in Ukraine "from these from KNEU  Please name other university (s)  Headhunting from domestic companies Headhunting from foreign companies in Ukr Recruitment from abroad Recruitment as the result of employee rotat the company	ur firm for  i? (multiple F7  te Ukrainian hi (F7  tion Or  Ref  raine Or  from within F8	F7. Please indicate how frequent your firm's echnical highly skilled staff (T), non-technical highly skilled staff (NT) and production workers PW) get trained in Ukraine? (only one answer)  T NT PW  Only once when hired
F4. Please assess in which fields does you the importance for further trainings of tech non-technical staff in Ukraine: (1-not import very important) a) Train your non-technical staff to: Learn communication skills	ir firm feel inical and sant, 5- b) cc	chool in terms of human resources development:  Yes □No  If yes, please choose the most relevant form occoperation: (multiple answers possible)
Learn how to fulfil their tasks more effectively Train others b) Train your technical staff to:	12345	Research Technical institution/u school niversity
Learn to use the equipment  Learn to repair the equipment  Learn to improve the equipment	12345 12345 <u>pr</u>	✓ our firm organizes specific       □         oroject internships       ✓ our firm organizes joint thesis       □

Your firm participates in	Former employees disseminated company 1 2 3 4 5
curriculum development	secrets when left your company
Your firm employees teach at the	Employees left your firm, after receiving 1 2 3 4 5
institution	training
Your firm provides financial	Other, please specify
support to the institution	F10. a) How many of your firm's former employees
institution (s) and/or technical school (s) with which your firm in Ukraine cooperates in terms of human	became entrepreneurs and opened his/her own business? Number of former employees
resources development	b) Location(s) of the business
resources development  F9. Please rate the importance of the following	b) Location(s) of the business c) In relation to your firm in Ukraine, the business of
•	b) Location(s) of the business c) In relation to your firm in Ukraine, the business of the majority of your former employees is:
F9. Please rate the importance of the following	b) Location(s) of the business c) In relation to your firm in Ukraine, the business of the majority of your former employees is:  Competitor  Customer
F9. Please rate the importance of the following problems your firm in Ukraine faced with respect to	b) Location(s) of the business c) In relation to your firm in Ukraine, the business of the majority of your former employees is:
F9. Please rate the importance of the following problems your firm in Ukraine faced with respect to your firm employees in general: (1 - not important, 5 –	b) Location(s) of the business c) In relation to your firm in Ukraine, the business of the majority of your former employees is:  Competitor  Customer

# ANNEX 17. Questionnaire for foreign-owned firms

Name of the company	
Name, address and telephone of the one production site of your firm in Ukraine, which this questionnaire refers to	
Name of the mother company / foreign company-investor	
Name of the respondent	
Position and department of the respondent	
Year of the start of work of the respondent at the firm	
Previous place of work of the respondent	
BLOCK A: Fact sheet	b) Please name the most important product category
A1. Locations of your company in Ukraine (oblast):  a) Headquarter:	in terms of sales in Ukraine in 2011: c) Please indicate the share of sales for this product category in Ukraine in 2011:%
b) Production site(s): c) Other office(s):	A9. Please specify productions of your firm in Ukraine regarding the share in each category:
Please choose one production site this questionnaire refers to (please think of this production site and office functions related to it only when answering the	(each total of 100%)       components    %       standardized products    %       final products    %
following questions) Location of this production site	=100% =100%
A2. a) When did your company start its operations in Ukraine? b) When did this production site start its operations in Ukraine?	A11. Please roughly indicate the following information regarding employment of your firm in Ukraine:  a) Employees at the end of 2011 of the production site of the firm b) Hired in 2011 at the production site at the
A4. Please indicate the nature of the investment in this production site in Ukraine: (only one answer)  □ Brown field investment (your firm's bought existing production site as your future production site)	firmthe firmthe firmthe
☐ Green field investment (your firm's built a new production site)	A12. Please indicate the number of employees of your firm in Ukraine in the following tasks:  R&D Engineers
A5. a) What is the ownership structure of your	Sales & Marketing Production workers
company in Ukraine? (only one answer)  □ 100% foreign-owned	A13. Please indicate the % of employees of your firm in Ukraine having respective education:
□Ukrainian company with FDI: Share of FDI %	Primary Secondary Junior BA MA+ specialist BA PhD
□Joint venture:	%%%%%
Share of FDI%  b) Please specify the nationality of the main foreign owner	=100% A14. Please provide us with some key figures of your firm in Ukraine:
A8. a) Please name the most important product	a)Total sales in 2011: in million UAH b)Sales growth rate 2010-2011:%
category in terms of sales when your firm started your business in Ukraine	c)The share of spending for personnel (incl. wages

and sala	aries) :%	of sales		Proximity to firms from the same sector of	012345
			raining programmes	economic activity as your firm	1
				Proximity to the EU border	012345
(both in e)The sl  A15. H (including internate with which with which with which with which with which with which with with which with with which with which with which with with which with which with which with with which with which with with which with with which with with which with w	-house and expanded ow were the same internal same ional markets current oblasts in their oblasts in the oblasts i	external):  ling on R&E  sales of you  les) distribute in 2011? in  n Ukraine  ntries  orts now, pl rding your f  r firm in Uk  tries does y	% of sales D:% of sales D:	B8. When your firm opened its product present oblast did it receive any financia any preferential policy from the government Yes No  B9. Please indicate the initial aim of the interpresent oblast in Ukraine:  (only one answer)  To produce products that are to be re-important of the present oblast in Ukraine:  (only one answer)  To produce products that are to be re-important of the product of	al help / use ent?  nvestment in orted by the Ukraine,  ont practices nt: (multiple
export i	n the past?	F	,	international markets	
			sales of your firm in	□International accounting practices (GAAP/I □Quality certification (e.g. ISO 9000, ISO 90 14000, ISO 14001, CE, HACCP, GMP etc.)	
in don	nestic (D) a		ational (I) markets	B4. Which one of the following statement	
respecti D	vely.			suitable to describe the strategic orienta	ition of your
<del>اط</del> %	% OEI	M: products	manufactured by your	firm in Ukraine? (only one answer)  ☐ Aim at short-term opportunities in establish	hed markets
	firm spe	in Ukraine cifications pr ent company	according to design ovided by buyers or	<ul> <li>□ Focus on innovation</li> <li>□ Just respond to incoming orders</li> <li>□ Follow emerging trends</li> </ul>	
%	by perf	your firm in	eveloped and designed Ukraine according to uirements of buyers or	<ul> <li>□ Set new market trends with new brands ar</li> <li>□ Enter specialized markets with weak comp</li> </ul>	
%	% OBI	M: products d	eveloped and designed Jkraine and sold under	B5. What is the strategy of your firm in the next 5 years? (multiple answers possibl ☐ Expansion in present oblast	
=100%	=100%			□ Downsizing in present oblast	
				<ul> <li>□ Relocation to other oblast(s)</li> <li>□ Abandon production in Ukraine</li> </ul>	
				☐ Do not change anything / leave everything	as it is
				BLOCK C: Business environment	
B7. Plea	ase assess t which play	he importa red a role	d location patterns  nce of the following in the investment traine (0 – not relevant	development or industrial park: (only one ☐ Yes, special (free) economic zones ☐ Yes, territory of priority development	of priority
for this o	blast, 1 – not i		– very important):	<ul><li>☐ Yes, industrial park</li><li>☐ No</li></ul>	
Lower co			012345	b) If yes, please name it	
	capital / knowle	edae	012345	C2 Has your firm in Ultrains harefited	from one of
Infrastru	cture		012345	C2. Has your firm in Ukraine benefited the following tax privileges and financia	
Preferen	tial policies / s		012345	during the last 5 years in present locati	
Proximit	y to customers	s / suppliers	012345	answers possible)	(
	y to other forei untry of origin			<ul><li>□ Decreased registration fee</li><li>□ Decreased income tax</li></ul>	

☐ Decreased VAT		a) □ person's needs and rights OR □ collective	∕e well-
☐ Exemption from taxation		being	
☐ Exemption from government duties		b)   recognition for outstanding achievement	s OR □
☐ Decreased import tariffs		harmony in the relationships (incl. business re	
☐ Government subsidies		•	nation on ipo)
□ No		<ul><li>and serving to others</li><li>c) □ norms and rules, orderliness and consist</li></ul>	tonov OP 🗆
		experimentation and innovation	ericy Ort
C6 Please assess the quality of the		•	'a ability and
aspects of institutional environment		d) $\Box$ the authority of one's position OR $\Box$ one	s ability and
location now: (1- very low quality, 5 - very hi		contribution	
Enforceability of legislation and regulation	12345	e) □ incremental development OR □ actual d	emands
policies		f) □ humility and flexibility OR □ pride and pe	ersistence
Physical property rights protection	12345	g) □ keeping time free for fun OR □ moderat	ion and
Intellectual property rights protection	12345	having few desires	
Reliability of oral contracts / agreements	12345	gg	
Central government support	12345	BLOCK D: Innovation	
Regional and /or local government support	12345	DECOR D. IIIIOVALION	
C7. In your opinion how important ar	e personal	D1. a) Did your firm in Ukraine introduce	
contacts between firms and public officials		following innovations in present location	auring the
location for getting the following activitie	-	last three years?  Product innovation	
not important, 5 – very important)			= N-
Opening of a legal entity	12215	Introduction of a new product or service   Ye	
	12345	Significant improvements in the functional or	
Getting export/import concessions or licences	1 2 3 4 5 1 2 3 4 5	characteristics of the existing goods or servic	es
Getting access to buildings and/or land Getting access to materials and resources	12345	□ Yes □ No	
Getting access to financial support from the	12345	Process innovation	
government	12040	Implementation of a new production or deliv	erv
govoriment		method □ Yes □ No	,
CO Have important are the following r	aaaana fau	Significant changes in the techniques, equip	ment
C8. How important are the following r		and/or software to provide significantly improv	
companies in Ukraine to fulfil some		methods for the creation and provision of serv	
personal contacts? (1- not important,	5 – very		rices
important)		□ Yes □ No	
To substitute for missing laws/regulations	12345	Marketing innovation	
To respond quickly to customer demands	12345	Implementation of a new marketing method	
To access business-related information	12345	□ Yes □ No	
To solve business disputes	12345	Significant changes to the product design or	
To overcome administrative barriers	12345	packaging, product placement, product promo	otion or
		pricing □ Yes □ No	
C9. Please assess how predictable change		Organizational innovation	
following institutional regulations have be			d in the
firm in Ukraine during the last five years (1	- not	Implementation of a new organisation method	ımıne
predictable, 5- very predictable)		business practices □ Yes □ No	
Regulations concerning the processes of	12345	Implementation of a new organisation method	I in the
investment and opening of the legal entity		workplace organisation ☐ Yes ☐ No	
Labour law	12345	Implementation of a new organisation method	d in the
Trade union regulations	12345	external relations □ Yes □ No	
Tariffs and taxes regulations	12345	b) If no, please choose the reason for this	(please go
Banking and credit regulations	12345	to E1 afterwards):	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Planning and land use change decisions	12345	☐ No autonomy from the parent company	
		☐ No sufficient financing	
C10. Do you know any other firms, wh	ich had to	☐ Lack of cooperation with a supplier and/or	customer
make gifts or informal payments to public		□ No need	
"get things done" with regard to custo			
licenses, regulations, services etc.	,,	D2. Please rate the importance of following	g reasons
□ No □ Yes		for your firm in Ukraine to innovate? (1-no	
		5- very important)	
C11. Please assess whether people living	in the	The rising cost of production	12345
region where your firm is located in Ukrain		Market competition	12345
•		Standards set by local authorities	12345
give priority to: (only one answer in each pa	ıı <i>j</i>	Government policies	12345

D2 Diseas indicate			Cooperation	on with a				
		s of financing of	supplier	on with a				
your firm's innovation answers possible)	on activities in	Oktaine. (manapie	Cooperation customer	on with a	Ш	Ш	Ш	Ш
☐ Own finance / undis	tributed profit of v	our firm in	Cooperati	on with a				
Ukraine	, ,		technologi					
☐ Own finance / undis		he mother	services p					
company / foreign inve			Cooperation					
<ul><li>□ Investments from th</li><li>□ Investments from th</li></ul>			competito	your firm	coopera	to with	a univ	voreity
☐ Investments from th				institute in				
Ukraine	ie invesiors in our	er oblast(s) iii	□ Yes □					
☐ Banking credits			c) If yes,	please indi	cate whic	h one		
☐ Venture capital / bu	siness angels							
D4 a) Which of the			BLOCK E	. Custome	r-supplier	relations		
D4. a) Which of the sources is your firm			E1. Pleas	e indicate	the share	of the su	ppliers	of vol
chosen in D1? (multi)				raine in te				
			following	categories	s:			
In-house innovation								
☐ Own R&D in presen								
<ul><li>□ R&amp;D at the corporat</li><li>□ Innovation, initiated</li></ul>		s within the						
production process	by the employee	S WILLIIII LITE			curr	ent c	ther	
production process				+	oblas otal Ukra		ast(s) in kraine	abroad
External Innovation	Domestic	Foreign	Within moth		olai Okia	iiie Oi	Mairie	abroad
	firm	firm	company /		_% = _	_% + _	%	+9
	#	**	company-ir					
	present oblast in Ukraine other oblast(s) in Ukraine	present oblast in Ukraine other oblast(s) in Ukraine outside of Ukraine	Other foreign company	gn 	_% = _	_% + _	%	+9
	present ok in Ukraine other oblast(s) ii Ukraine	n Ukraine other oblast(s) ir Ukraine outside of	Ukrainian fi	irm	% =	<b>%</b> +	%	+9
	present in Ukraii other oblast(s Ukraine				0% =	<del>_</del> % +	%	+ 9
E2. Please provide u	s with the inforn	nation regarding <u>two</u>	Total most impor					
E2. Please provide u in Ukraine (one dom	s with the inforn	nation regarding <u>two</u>	_	tant suppli		ır firm's p		tion site
in Ukraine (one dom	s with the inforn estic firm and or	nation regarding <u>two</u>	_	tant suppli	ers of you	ır firm's p	roduct	tion site
a) Location (oblast, b) Nationality	s with the inforn estic firm and or city / town)	nation regarding <u>two</u>	_	tant suppli	ers of you	ır firm's p	roduct	tion site
a) Location (oblast, b) Nationality c) Start of cooperat	s with the inforn estic firm and or city / town) ion (year)	nation regarding <u>two</u> ne foreign firm):	most impor	tant suppli	ers of you	ır firm's p	roduct	tion site
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do	s with the inforn estic firm and or city / town) ion (year) es this supplier	nation regarding <u>two</u> ne foreign firm): supply to the produc	most impor	Domesti in Uk	ers of you c supplier kraine	Foreiç in	roduct gn sup Ukrain	tion site
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do	s with the inforn estic firm and or city / town) ion (year) es this supplier	nation regarding <u>two</u> ne foreign firm):	most impor	Domestic in Uk	c supplier	Foreigin	gn sup Ukrain	tion site
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do	s with the inforn estic firm and or city / town) ion (year) es this supplier	nation regarding <u>two</u> ne foreign firm): supply to the produc	most impor	Domesti in Uk	c supplier craine	Foreiç in	gn sup Ukrain	plier e
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do	s with the inforn estic firm and or city / town) ion (year) es this supplier	nation regarding <u>two</u> ne foreign firm): supply to the produc	most impor	Domestic in Uk	c supplier craine	Foreigin Genecompor	gn sup Ukrain eral nents ines ar	plier e
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do	s with the inforn estic firm and or city / town) ion (year) es this supplier	nation regarding <u>two</u> ne foreign firm): supply to the produc	most impor	Domestic in Uk	c supplier craine	Foreigin Genecompor Machequipm Tech	gn sup Ukrain eral nents nines ar ent nologic	plier e ——————————————————————————————————
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a) Location (oblast, b) Nationality c) Start of cooperat d) What product do e) This supplier sup	s with the informestic firm and or city / town) ion (year) es this supplier oplies to the production	nation regarding two ne foreign firm): supply to the production site the follo	most impor	Domestic in Uk	c supplier craine	Foreigin Genecompor Machequipm Tech	gn supularian eral nents aines ar ent nologic mpone	plier e ——————————————————————————————————
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do e) This supplier sup	s with the informestic firm and or city / town) ion (year) es this supplier oplies to the production of the production o	nation regarding two ne foreign firm): supply to the produc duction site the follo	most impor	Domestic in Uk	supplier craine	Foreigin Genecompor Machequipm Techcore co	gn supularian eral nents aines ar ent nologic mpone	plier e 
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do e) This supplier sup	s with the informestic firm and or city / town) ion (year) es this supplier popules to the productive provides you but / to	nation regarding two ne foreign firm): supply to the production site the follo our company? Ir most important su	most impor	Domestic in Uk	supplier craine	Foreigin Genecompor Machequipm Techcore co	eral nents arient nologic mpones	plier e 
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do e) This supplier sup f) Is this supplier le g) The production s the information abouncease productionpossible improvem	s with the informestic firm and or city / town) ion (year) es this supplier oplies to the products gally linked to you tout / to n speed / reliabilitients of products	nation regarding two ne foreign firm): supply to the production site the follo our company? Ir most important su	most impor	Domestic in Uk  General componer Guipment Technologore componer Guipment Gu	siers of you c supplier kraine  Il ints es and it iological ponents  No	Genecompor Hach	eral nents arient nologic mpones	plier e  al nts No
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do e) This supplier sup f) Is this supplier le g) The production s the information abounces production possible improvements olution of technical	s with the informestic firm and or city / town) ion (year) es this supplier popules to the products and problems	nation regarding two ne foreign firm): supply to the production site the follo our company? Ir most important su	most impor	Domestic in Uk  General componer Guipment Technologore componer Guipment Gu	siers of you c supplier kraine  Il nts es and it blogical ponents  No	Gene compor Hach core co	eral nents arient nologic mpones	plier e
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do e) This supplier sup f) Is this supplier sup g) The production s the information aboundaries production possible improvements olution of technical h) The production s	city / town)  city / town)  ion (year) es this supplier oplies to the products al problems  site provides this site provides th	nation regarding two ne foreign firm): supply to the production site the follo our company? Ir most important su	most impor	Domestic in Uk  General componer of Machine equipment of Core com Yes  Yes Yes Yes	siers of you c supplier kraine  al ints es and blogical ponents No	Gene compor Hach equipm Tech core co	eral nents an ent on ologic mpone	plier e  al nts No No No
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do e) This supplier	city / town)  city / town)  ion (year) es this supplier oplies to the products al problems  site provides this site provides th	nation regarding two ne foreign firm): supply to the production site the follo our company? Ir most important su	most impor	Domestic in Uk  General componer of Machine equipment of Core com Yes  Yes Yes Yes Yes	siers of you c supplier kraine  al ints es and it blogical ponents  No  No	Genecompor Hachester Genecompor	eral nents aines arent nologic mpone	plier e  and sal nts No No No No
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a) Location (oblast, b) Nationality c) Start of cooperat d) What product do e) This supplier	s with the informestic firm and or  city / town)  ion (year) es this supplier or  pplies to the products of products all problems interprovides this interprovides the provides this interprovides this int	nation regarding two ne foreign firm): supply to the production site the follo our company? Ir most important su	most impor	Domestic in Uk  General componer of the property of the proper	siers of you c supplier kraine  Il ints es and blogical ponents No No No No	Foreign in Generation	eral nents nologic mpone	plier e  and sal nts No No No No No
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do e) This supplier	city / town)  city / town)  ion (year) es this supplier oplies to the products all problems cite provides this nents of products all problems cite provides this neutron equipment or training and experience oplier mainly rec	nation regarding two ne foreign firm):  supply to the production site the follo our company? Ir most important su sy eive the necessary be	etion site? wing:	Domestic in UP  General componer of the property of the proper	siers of you c supplier kraine  Il ints es and blogical ponents No No No No No	Foreigin Gene compor Mach equipm Tech core co	eral nents nologic mpone	plier e  and al nts No No No No No No No No
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do e) This supplier	city / town)  city / town)  ion (year) es this supplier of the products of products all problems on equipment or training and experience opponents: (only of the products: (only of the	supply to the production site the following important such information through the eive the necessary bene answer)	etion site? wing:	Domestic in Uk  General compone   Machin equipmer   Technol core com   Yes   Y	iers of you c supplier craine  Il ints es and it ilogical ponents No No No No No No No No	Foreigin Gene compor Mach equipm Tech core co	eral nents an ent nologic mpone	plier e  and al nts No No No No No No No No
a) Location (oblast, b) Nationality c) Start of cooperat d) What product do e) This supplier	city / town)  city / town)  ion (year) es this supplier oplies to the products of products all problems site provides this nuals  on equipment or training and experience oplier mainly recomponents: (only our firm to the supplier to the su	supply to the production site the following important such information through the eive the necessary being answer)	etion site? wing:	Domestic in Uk  General compone   Machine equipmer   Technolocore com   Yes	siers of you c supplier kraine  Il ints es and blogical ponents No No No No No	Foreigin Gene compor Mach equipm Tech core co	eral nents nologic mpone	plier e  and sal nts No No No No No No No No

Co-development with supplier			П		I		П		I
Provision of general specifications by your firm, design by suppli	ier								
Wholly developed by the supplier									
j) The production site's relationship with the most importan	t								٦
supplier has helped your firm in Ukraine to:									
improve your product quality		□ Yes		No		Yes		No	
reduce your production cost		□ Yes		No		Yes		No	
improve your responsiveness to requests for volume changes		☐ Yes		No		Yes		No	
design new products or make changes in existing items		☐ Yes		No		Yes		No	
k) Please choose which of the following reasons would make	ce the								
switch to another supplier in Ukraine difficult?									
Customized products		☐ Yes	_	No		Yes		□No	
Dominant market position		☐ Yes		No	_	Yes		□No	
Personal networks (trustful relationships)		☐ Yes	_	No		Yes		□No	
Contacts with the government		□ Yes		No		Yes		□No	
E3. To whom does your firm in Ukraine supply produced products:				oblas Ukra		oblas Ukra	t(s) in aine		
☐ Customer (company) ☐ Consumer (people)	Within mot company / foreign cor investor		%	= _	_%	+ _	_%	+_	
firm in Ilkraina in tarme of calce value in the	Other fore	eign _	_%	= _	_%	+ _	_%	+_	

total current other abroad

following categories:

E5. Please provide us with information regarding your firm's two most important customers of your firm's production site in Ukraine (one domestic firm and one foreign firm):

company

Total

Ukrainian firm

%

100% =

%

%

%

	Domestic customer in Ukraine		Foreign custome in Ukraine	
a) Location (oblast, city / town)				
b) Nationality				
c) Start of cooperation (year)				
d) What product does your firm in Ukraine sell to this customer?				
e) Is this customer legally linked to your company?	□ Yes	□ No	□ Yes	□ No
f) This customer provides the production site with information				
about / to				
increase production speed / reliability	□ Yes	□ No	□ Yes	□ No
possible improvements of products	□ Yes	□ No	□ Yes	□ No
solution of technical problems	□ Yes	□ No	□ Yes	□ No
g) This customer provides this information through:				
blueprints and manuals	□ Yes	□ No	□ Yes	□ No
product samples	□ Yes	□ No	□ Yes	□ No
machines/production equipment	□ Yes	□ No	□ Yes	□ No
exchange of staff or training	□ Yes	□ No	□ Yes	□ No
exchange of ideas and experience	□ Yes	□ No	□ Yes	□ No
h) How does the production site mainly receive the necessary				
blueprints for products or components: (only one answer)				
Fully provided to your firm by the customer		]		
Design is purchased or licensed from the customer		]		
Co-development with the customer		]		
Provision of general specifications by the customer, your design		]		
☐ Wholly developed by your firm				
i) The production site's relationship with the most important				
customer has helped your firm in Ukraine to:				
improve your product quality	□ Yes	□ No	□ Yes	□ No
reduce your production cost	□ Yes	□ No	□ Yes	□ No
improve your responsiveness to requests for volume changes	□ Yes	□ No	□ Yes	□ No
design new products or make changes in existing items	□ Yes	□ No	☐ Yes	□ No

j) Please choose which of the following rea switch to another customer in Ukraine diffic		nake the				
Customized products			□ Yes	□ No	□ Yes	□ No
Dominant market position			□ Yes	□ No	□ Yes	□ No
Personal networks (trustful relationships)			□ Yes	□ No	□ Yes	□ No
Contacts with the government			□ Yes	□ No	□ Yes	□ No
BLOCK F. Human capital and skills develop	ment		hnical highl on workers	y skilled staf	ff%	
DECORT : Human capital and skins develop	nent	rioddoli	on workers	,	=100%	
In this section under <b>technical highly skilled</b> engineers and employees engaged in R&D are under <b>non-technical highly skilled sta</b> managers and employees engaged in sales & lare meant.	meant; aff (NT)	provide technic	to technic al highly s	al highly sk killed staff (	oes your firn killed staff (T (NT) and pro ers possible)	), non- duction
are mean.		O a a alain	/ <del>1</del>	_	T	NT PW
F1. Please assess the availability of su	ıfficiently		g/mentoring tions, exch			
skilled staff in the local labour market in Uk	kraine: (1		nents or stu		Ш	
<ul><li>very bad, 5 – very good)</li></ul>				arning or qua	ılity 🗆	
· ·	2345	circles		9 0. 900		
	2345	Training	by your fire	m's own trair	ners 🗆	
Marketing workers		Training	by trainers	from specia	ılized 🗆	
R&D 12345			agencies	•		
F2. What is the percentage/number of foreig	n			nces, worksł	nops, 🗆	
employees amongst your frim's highly skille			rs and lectu		_	
employees in Ukraine in total	·u			sity/research		
omproyees in chaums in total			local staff	chnical scho	OOI	
F3. What is the recruitment strategy of your	r firm for	Serialing	iocai staii	abioau		
the highly skilled staff in present location?  answers possible)  Recruitment of the graduates from the	, ,	technica highly	al highly skilled st	skilled st aff (NT) an	frequent y taff (T), no nd production only one and NT PV	on-technical on workers wer)
universities		Only one	ce when hir			
% from the universities in present location	on	Occasio				
% from other universities in Ukraine %from these from KNEU		Regularl	y			
Please name other university (s)		Never				
☐ Headhunting from domestic companies	<del></del>	Other, p	lease spec	ify		
☐ Headhunting from foreign companies in Ukrai	ine	E0 a) D		firms in Illera		.4:4h
□ Recruitment from abroad					aine coopera rsity and/o	
□ Recruitment as the result of employee rotatio	n within				ources deve	
the company		□ Yes	□No	mamam roo	001000 0010	opinon.
F4. Please assess in which fields does your the importance for further trainings of techn non-technical staff in Ukraine: (1-not important)	ical and			choose the tiple answers	most relev s possible)	ant form of
very important) a) Train your non-technical staff to:					Research	Technical
	12345				institution/u	school
	12345				niversity	
effectively			m organiz	es specific		
Train others	12345	project in	•			
b) Train your technical staff to:			organizes jo			
	12345		•	cipates in		
• • • • • • • • • • • • • • • • • • • •	12345		n developme			
Learn to improve the equipment	12345			teach at the		
F5. Please indicate what share of all of the tr	rainings	institutior Your fi	n provide	ae financial		
of your firm in Ukraine do the following grou			rm provide the instituti		Ц	Ц
employees receive: Technical highly skilled staff%	-	_ support to	o are monut			

c) Please name the university (s) / research institution (s) and/or technical school (s) vyour firm in Ukraine cooperates in terms of	with which	training Other, please specify	у		
resources development		-	of your firm's former employees		
F9. Please rate the importance of the follo problems your firm in Ukraine faced with your firm employees in general: (1 - not im	respect to	became entrepreneurs and opened his/her ow business?  Number of former employees  b) Location(s) of the business			
very important)			ır firm in Ukraine, the business of		
Shortage of equally qualified labor to	12345	the majority of you	r former employees is:		
replace former employees	40045	□ Competitor	□ Customer		
Former employees disseminated company secrets when left your company	12345	□ Supplier	☐ Unrelated		
Employees left your firm, after receiving	12345	Thank you for your	cooperation		

## **Curriculum Vitae**

## Daria Zvirgzde

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#### **Education**

October 2011- till now	PhD Candidate - Institute of Economic and Cultural Geography - Leibniz University Hanover - Germany
September 2010 -June 2011	Master of Science - Global Management - Antwerp Management School - Belgium
September 2009 – June 2010	Master of Science – International Business - Kiev National Economic University - Ukraine
July 2008	Summer University - Vienna University of Economics and Business Administration – Austria
September 2005 -June 2009	Bachelor of International Economy - Kiev National Economic University - Ukraine

#### Participation at conferences

August 2013	53rd ERSA Congress 2013, August 27-31, 2013, Palermo, Italy, presentation: "Location choices of MNEs in Ukraine"
June 2013	35th DRUID Celebration Conference 2013, Barcelona, Spain, presentation: "The role of local institutional environment for the development of multinationals and SMEs in a transition economy"
June 2013	16th Uddevalla Symposium 2013, Kansas City, USA, presentation: "Institutional environment and FDI in Ukraine"
May 2013	Niedersächsischer Workshop in Applied Economics, Hannover, Germany, presentation: "The role of local institutional environment for the development of multinationals and SMEs in Ukraine"
April 2013	XIV April International Academic Conference on Economic and Social Development, Moscow, Russia, presentation: "Location choices of multinational companies in Ukraine"
August 2012	52nd ERSA Congress 2012, Bratislava, Slovakia, presentation: «Towards internationally competitive regions in Ukraine: critical assessment»

#### **Publications**

- "Location choices of multinational companies in transition economies: A literature review", Working Paper 2.5, SEARCH Project, http://www.ub.edu/searchproject/wp-content/uploads/2013/01/WP-2.5.pdf
- "Location choices of multinational companies in Ukraine", Working Paper 2.14, SEARCH Project, http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH\_Working-Paper\_2.14.pdf
- "Impacting innovation behavior of foreign and domestic firms: The case of Ukraine", Working Paper 2.15, SEARCH Project, http://www.ub.edu/searchproject/wp-content/uploads/2013/09/SEARCH\_Working-Paper\_2.15.pdf
- "Similarities and differences of institutional change between ENP countries and other catch-up countries", Working Paper 5.14, SEARCH Project, http://www.ub.edu/searchproject/wp-content/uploads/2013/01/WP-5.14.pdf
- "The role of local institutional environment for the development of multinationals and SMEs in Ukraine: Transition economies perspective", Working Paper 5.19, SEARCH Project, http://www.ub.edu/searchproject/wp-content/uploads/2013/09/WP05.19.pdf