

## **Special Contribution**

# **Evolution of Russian Business: Interaction between firm activities and business locations**

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### **1. Introduction**

The purpose of this paper is to reconsider Russia as a business location and firm activities there. The present author majors in international business and is interested in business development in emerging markets. International business scholars have conducted research on why firms go beyond their borders, how their competitive advantages can be promoted through international business activities, what emerging markets bring to multinationals, etc.

Industrial organization and internalization theories concerning multinational corporations assume that they have huge competitive advantages over local firms and thus cross borders when they intend to exploit those capabilities. From the 1980s through the 2000s, multinationals were thought to build their capabilities by adopting good global strategies and/or exploiting their affiliates' networks around the world. International business has thus focused on various facets of relationships between host countries and multinationals. Russia is considered an emerging giant market. It is not just developing, but is a middle-advanced nation in terms of market features and research and development (R&D) competency, which is an important factor when discussing emerging markets.

Dunning's eclectic paradigm of international business is reviewed and critically discussed. Our view on international business, that is the FL<sup>2</sup> framework, is presented, which pays particular attention to the interaction or co-evolution between firm activities and business locations. Next, two cases of Russian business are introduced, the local software industry and its major firms, and the American aircraft and space giant Boeing. Finally, the

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<sup>2</sup> "F" stands for "firm" while "L," "location," respectively.

evolution of Russian business based on this framework and the specific cases are discussed.

## 2. Framework of international business

### (1) Dunning's eclectic paradigm<sup>3</sup>

J.H. Dunning explained the logic or determinants of international production, i.e., why multinationals transfer their core activities (e.g., factories in the case of the manufacturing industry) across borders. He chose three variables by combining two theories eclectically, industrial organization and internalization theories.

Ownership specific (O) advantages come from the industrial organizational approach and mean that multinationals must have competitive advantages over local firms. Internalization (I) advantages refer to the internalization theory and indicate that firms recognize the internal use of O advantages in order to be more efficient. Location specific (L) advantages suggested that the manufacturers believe that there are appropriate assets in the host countries for local production. According to Dunning, as per Table 1, if and only if these three conditions are met, the company will transfer core activities across the border and become a multinational firm. If only the O and I advantages are satisfied, exporting to that market will be initiated. Where only O advantages are present, the firm will license production of their products to local companies. This is the basic idea of the eclectic paradigm.

**Table 1. Determinants of international production**

	O advantages	I advantages	L advantages
FDI	Yes	Yes	Yes
Export	Yes	Yes	No
Licensing	Yes	No	No

Source: Dunning, J.H. (1988) *Explaining International Production*, London: Unwin Hyman, p. 28.

Dunning divided O advantages into asset-based O advantages (Oa) and transaction cost-minimizing O advantages (Ot). The former are property rights and/or intangible asset advantages, such as production innovations, marketing systems, and non-codifiable knowledge. The latter derive from common governance of organizing Oa with complementary assets, such as economies of scope and learning and access to parent's and other group companies' assets.

I advantages are expected to circumvent or even exploit three types of market failure. The first failure is caused by impediments to trading intermediate products or intangible

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<sup>3</sup> Dunning, John H. (1992), *Multinational Enterprises and the Global Economy*, Wokingham: Addison-Wesley Publishing Company and relevant papers are referred.

assets due to imperfect information. The second is difficulty in integrating advantages and costs of organizing activities, such as vertical integration of value-adding activities. The third factor is externalities due to economies of scale, scope, geographic diffusion.

L advantages are the extent to which firm interests are served by utilizing their O advantages in foreign locations. They can be divided into two assets, natural and creative. The former consist of natural resources, cheap labor costs and huge labor forces while the latter, human resources, technological resources, government policies.

The eclectic paradigm has received much criticism, to which Dunning has responded<sup>4</sup>. He then added another element to the O advantages (Oi), which are institution-based O advantages which enhance firm capabilities and asset values, such as corporate philosophy and the organizational culture. Institution-based L advantages (Li) which expect to develop human resources and to reduce transaction costs are also specified. The first advantage of the eclectic paradigm is that it is a comprehensive paradigm. Second, it covers macro (nation-level), meso (industry-level), and micro (firm-level) phenomena. The third strength is its flexibility. Dunning concluded that the eclectic paradigm is like an “envelop of international business.”

The present author believes that we can learn a lot from the eclectic paradigm. However, at the same time, there currently seem to be several limitations in this paradigm. First, variable labels and definitions become imprecise due to the extension of the paradigm and the addition of sub-variables. Second, it does not explain the relationships among the O advantages, Oa, Ot and Oi. Third, the discussion of I advantages in terms of alliance and already-multinationalized firms is insufficient. Internationalized rather than internationalizing firms have become a lot more important in the global economy. Fourth, the advantages and disadvantages of L factors are intermingled in Dunning’s paradigm. Therefore, a new framework appears to be indispensable, particularly for international business in emerging economies.

## (2) The FL framework<sup>5</sup>

When we review theoretical studies of international business over the last five decades, a major focus seems to be the locational features of the host countries. Porter suggested the Diamond, which is characterized by four elements of locations: factor and

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4 Dunning, John H. (2003), “The eclectic (OLI) paradigm of international production, past, present and future,” in Cantwell, J. & R. Narula, *International Business and the Eclectic Paradigm*, London: Routledge, is referred.

5 Imai, Masakazu (2011), *ShinkotaikokuRosia no Kokuzaibijinesu* (International business of Russia, an emerging giant), Chuo Keizaisha.

demand conditions; supporting industries; and good rivalry<sup>6</sup>. Metanational theory focuses on managerial resources embedded in business locations<sup>7</sup>. We are also aware that international business has evolved through the interaction or co-evolution between business activities and locations.

We want to suggest an FL framework in order to understand international business, particularly in the context of emerging economies. The basic concept is evolution of firm activities and business locations. The firms' competitive advantages accelerate the locations' competitive advantages and vice versa when a virtuous circle between them realizes. On the contrary, if host countries fail to provide appropriate business environments, no firm, whether foreign or home, can successfully conduct business and will have to withdraw from the market, and the business environment further deteriorates. This is a vicious circle. Evolution does not necessarily mean advancement.

Elements that govern firms and their activities (FRV: firm related variables) can be divided into three, organizational cultural (OC), managerial resources (MR), and external networks (EN) variables, as shown in Table 2-1. Organizational cultural variables encompass corporate philosophy, values, discipline, strategic planning, and organizational capabilities that can augment asset values. Managerial resources variables are tangible and intangible assets, and access to intra-firm MR, i.e., existent organizational capabilities of production, management, marketing and fund raising. External networks variables are access to external MR, which recently garnered particular attention in the context of network or social capital theory. Relations among the FRVs are summarized in Table 2-2, which means that the present organizational abilities (the sum of MR and EN) can be either multiplied or discounted by the organizational culture (OC).

**Table 2-1. Elements of Firm Related Variables (FRV)**

Variables	Elements
Organizational Cultural (OC) Variables	<ul style="list-style-type: none"> <li>• Organizational culture, i.e., corporate philosophy, values and discipline</li> <li>• Strategic planning and organizational capabilities to augment asset values</li> </ul>
Managerial Resources (MR) Variables	<ul style="list-style-type: none"> <li>• Tangible assets, i.e., human, material and financial resources</li> <li>• Intangible assets, i.e., trademarks, designs and technology</li> <li>• Existent organizational capabilities of production management, marketing, fund raising, etc.</li> <li>• Access to intra-firm MR</li> </ul>
External Networks (EN) Variables	<ul style="list-style-type: none"> <li>• Access to external MR</li> </ul>

6 Porter, Michael (1990), *The Competitive Advantage of Nations*, London: Macmillan is referred.

7 Doz, Yves L., J. Santos & P. Williamson (2001), *From Global to Metanational, how companies win in the knowledge economy*, Boston, MA: Harvard Business School Press, is referred.

**Table 2-2. Relations among FRVs**

$$FRV = OC \times (MR + EN)$$

Source: Imai (2011), pp. 131-132.

Elements of location related variables (LRV) are divided into two, location assets (LA) and business institutional (BI) variables, shown in Table 3-1. Location assets variables consist of endowment of natural resources, factor markets of labor, materials, energy, etc., product and service markets, and professional and scientific technological human resources. Business institutional variables comprise reliability of law and regulation, efficiency of administration, economic and industrial policy, physical and institutional distance, social infrastructure, and business practices in inter-firm relations. Relations among LRVs are explained in Table 3-2, specifically, that LRVs are the sum of LAs and BIs.

**Table 3-1. Elements of Location Related Variables (LRV)**

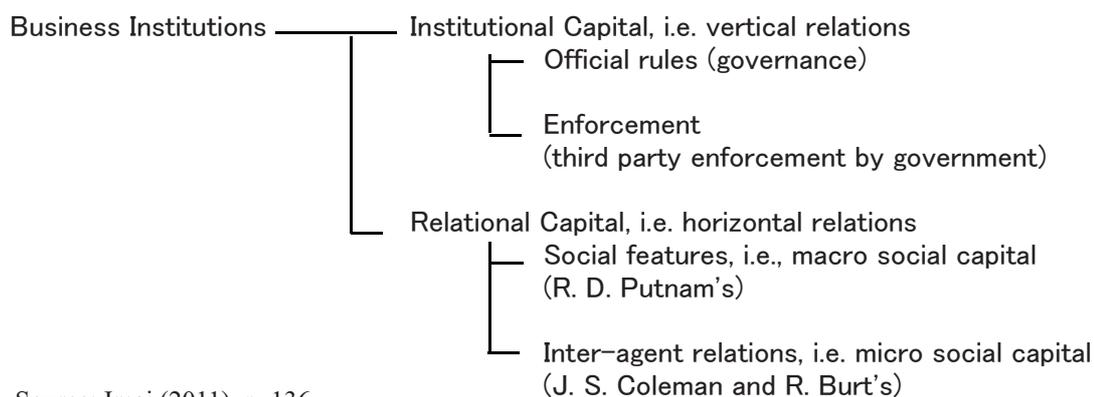
Variables	Elements
Location Assets (LA) Variables	<ul style="list-style-type: none"> <li>• Endowment of natural resources</li> <li>• Factor markets of labor, materials, energy, etc.</li> <li>• Product and service market</li> <li>• Professional and scientific/technological human resources</li> </ul>
Business Institutional (BI) Variables	<ul style="list-style-type: none"> <li>• Reliability of law and regulation</li> <li>• Efficiency of administration</li> <li>• Economic and industrial policy</li> <li>• Physical and institutional distance</li> <li>• Social infrastructure, i.e., transportation and communications</li> <li>• Business practices in inter-firm relations</li> </ul>

**Table 3-2. Relations between LRVs**

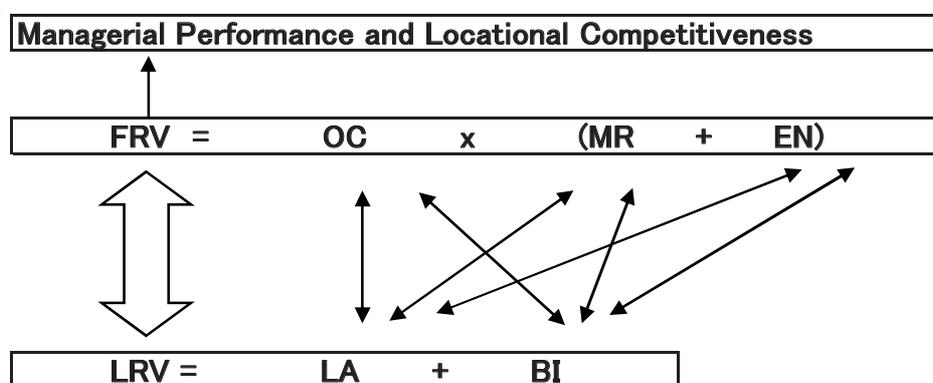
$$LRV = LA + BI$$

Source: Imai (2011), p. 134.

Figure 1 depicts elements of business institutions, which are institutional and relational capitals. The former regulates vertical relations of the society while the latter regulates horizontal relations. The FL framework, which regards international business as interaction between firms and locations and understands that competitiveness of the firms and the locations is determined by that co-evolution, is sketched in Figure 2.

**Figure 1. Institutional and Relational Capital**

Source: Imai (2011), p. 136.

**Figure 2. FL Framework**

Source: Imai (2011), p.144.

### 3. Russian software firms

Since 1999, except 2009, natural resources and consumption have been the drivers of the Russian economic upsurge. The IT (information technology) industry has also been expanding drastically and supporting the boom. Software and IT services have internationally competitive advantages, and exportation has increased although far less in comparison to oil and natural gas exports. This is quite different from Russian traditional industries and can become a change agent of the Russian economy or society.

The software industry fits the Russian economic environment. There are few manufacturing industries which have competitive advantages over foreign firms. Even when they do, it is difficult to maintain that advantage because industrial infrastructures and supporting industries are underdeveloped in Russia. However, in the software industry, where there are sufficient and affluent human resources, it is easy to compete with foreign companies because only basic infrastructures are required, such as electricity and communications. Indian software industry is exactly the same.

**Table 4. Software export**

US\$ in millions

		2001	2002	2003	2004	2005
Software development (Custom software)	Russian firms	n.a.	n.a.	n.a.	480	550
	Foreign firms	n.a.	n.a.	n.a.	130	200
Software products (package software)		n.a.	n.a.	n.a.	130	200
Total in round figures		200	345	530	740	950
		2006	2007	2008	2009	2010
Software development	Russian firms	800	1,220	1,400	1,400	n.a.
	Foreign firms	280	280	400	320	n.a.
Software products		330	330	800	1,030	n.a.
Total in round figures		1,410	2,150	2,600	2,750	3,200

Source: Russoft data and information provided by Varentin Makarov, Chairman.

Russoft, the Software association of Russia, announced a software export trend based on reports from member firms. Table 4 shows the figures since 2001. Exportation is still relatively small, but it has increased over the last decade, even in 2009. In 2010, it reached 3.2 billion dollars. In the case of 2009, software development (custom software and related services) by Russian firms accounted for half while that by foreign firms decreased to little more than 10 percent due to the economic slowdown of their home markets. On the other hand, the export of software products (package software) has surged in recent years. The package software business needs not only technological but also marketing competencies because its features are more similar to consumer goods than commercial products. Sales of the custom software business can expect a steady increase, but a drastic growth will be difficult to achieve. However, for software products, if some products are marketed and attract a lot of people, sales are anticipated to increase by double or even triple-digits. For the Russian software industry, it is important to grow in order to compete with other countries such as India, Israel and Ireland. Development of the package software business is expected to grow continuously.

We will overview three main players, Luxoft, EPAM Systems and Kaspersky Labs<sup>8</sup>. The former two are mainly custom software developers while the latter is an anti-virus developer and marketer. Finally evolution of software firms and Russia as a business location is discussed.

(1) Luxoft

Luxoft, a subsidiary of IBS Group, was established in Moscow in 2000. It is one of

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<sup>8</sup> Imai (2011), pp. 157-171, recent information of Luxoft, EPAM and Kaspersky Labs on their website and Russoft (2010) *Russian Software Developing Industry and Software Exports 7<sup>th</sup> annual survey*, are referred.

the two largest custom software houses in Russia. It employs more than 5,000 and its sales reached 206 million dollars in 2010. The technological proficiency of Luxoft is widely recognized and its customer base extends from European and US multinationals, such as Deutsche Bank, Boeing, IBM and Microsoft, to Russian firms, such as Absolute Bank and Vimplecom. Luxoft received CMM/CMMI Level 5 and ISO 9001 certificates in 2008 and an ISO27001 in 2005.

Luxoft's services extend from software development and product engineering to IT consulting and their customers span various industries. It is particularly strong in the finance and communication industries and has enhanced its competitive advantages through M&A (mergers and acquisitions), such as the acquisition of American IT Consulting International in 2006. These strategies enabled Luxoft to increase sales even amid the global economic crisis of 2009 and after.

Luxoft has three development centers in Russia, namely Moscow, St. Petersburg and Omsk, three in Ukraine and one each in Romania, Vietnam, Poland and the UK. Sales and service offices are located in the US, the UK, Germany and Singapore. Global expansion reflects the growth of Luxoft itself and its customer base. In addition, customer needs require IT providers to expand global delivery locations. Multinationals demand consistency and high quality standards across several time zones, cultures and languages. Luxoft's global reach is not just promoted by labor leverage, but by strategic intention to exploit the superior talents and unique strengths of each location. This is a firm's co-evolutional reaction to the industrial trends and business locations.

## (2) EPAM Systems

EPAM Systems is another large custom software developer. It was founded by a Belorussian immigrant, back in 1993 in Newtown, PA in the US where it is still headquartered. Thus, EPAM is not a Russian firm. However, it is the first software house that founded a development center in Russia and Eastern Europe. The Russian delivery centers are still major EPAM locations while the US headquarters focuses strictly on administration and sales, and thus EPAM can be categorized as a Russian firm.

EPAM's employees exceed 6,500. Turnover in 2010 reached 221.8 million dollars with net profits of 28.3 million dollars. It reported that its sales increased to 153 million dollars with net profits of 18 million dollars in the first half of 2011.

EPAM's proficiency is also well established and it obtained CMMI Level 4 and ISO9001 certificates in 2000. It provides services from full-cycle software engineering to IT consulting. Major customers include European and American multinationals, such as Thomson Reuters, Coca-Cola and SAP as well as Russian firms, such as MICEX (currency and capital markets of Moscow) and Renaissance Capital.

EPAM has development centers in Russia, Hungary, Belarus, Ukraine and Poland. Its sales and service centers are located in the US, Germany, Sweden, the UK, Switzerland and Kazakhstan. EPAM has also expanded its operation across borders in response to customer and business location evolution.

### (3) Kaspersky Labs

Kaspersky Labs was established in Moscow in 1997 and is presently the number four anti-virus and security software provider in the world. A former KGB IT specialist founded the company based on his own expertise. The company has 2,300 employees and its revenue exceeded 500 million dollars in 2010.

The Kaspersky Labs development center is located in Moscow while its sales and service offices, mainly affiliate companies, are located in 29 countries around the world. Its products are sold in 100 countries and 300 million people use Kaspersky products. 200 thousand out of the users are corporate customers.

Kaspersky Labs formerly mainly supplied its own products and services to other anti-virus providers under OEM (original equipment manufacturing) contracts. Recently, however, it has been marketing the products under its own brand name. Kaspersky Labs formed a joint venture in Japan with Just Systems in 2006, but this was dissolved in 2011. Kaspersky products are solely marketed by its subsidiary under its own brand name in Japan.

### (4) Evolution of software firms and Russia

The Soviet Union as a socialist country failed to construct an economically developed and democratic society. On the other hand, it provided people with a basic infrastructure, including education, healthcare, and lifelines, such as electricity and gases. It also produced top world class artists and athletes. Education seems to be the best success of the USSR, which includes not only basic education, but advanced natural science fields. Even after the collapse of the former regime, some 70,000 students continue to obtain computer science, mathematics and physics masters' degrees every year. When students in other fields who can be engaged in programming are incorporated, some 225,000 graduates are produced annually. What is remarkable is not just the number of programmers, but also their proficiency. Many Russian students win annual student programming contests every year and results are equivalent to the Massachusetts Institute of Technology (MIT) and other top American universities.

First, there are a number of people who have excellent programming competency in Russia (LA). Russian and other former Soviet immigrants recognized LA in the very early stages of the 1990s.

Second, they founded their head offices in America or Europe, but opened development centers in Russia and supplied good quality software services at quite low Russian costs for that time. From around 2000 onwards, Russian software firms, headquartered in Russia, began to be founded. They enhanced their MR through export to western markets and incorporated external resources (EN) by acquisition of other (software and other) firms.

Third, learning organizations were formed to develop programmer capabilities through various training programs (OC). Excellent working environments were also design, such as sophisticated offices, gymnasiums, pool bars and other recreational facilities, as was done Indian software companies. The industry provides far stronger institutional pressure than the local environment. In the software industry personal competency is the key to success and customers and their requirements are common around the world. This might be the cause of such institutional pressure and we expect that this industry becomes a change agent of the Russian society.

Fourth, as the presence of the software industry increases in Russia, government industrial policy has looked toward the sector (BI). The state began to construct science parks for software firms and other high tech industries. In addition, they strengthened the protection of IT intellectual property at the industry's request and cancelled VAT (value-added tax) on software licensing agreements.

After the Lehman shock in late 2008, the industry and software firms evolved themselves (OC and MR). Small firms seemed to be selected but they did not just simply and totally disappear. Some used the opportunity to grow. Diversification of markets and product portfolios of firms accelerated with an increase in software product exports, etc. Software is still a small sector in Russia, but it has differentiated its characteristics. It has evolved and co-evolved with the world industry and the Russian business environment.

#### **4. Boeing in Russia**

##### **(1) Brief history<sup>9</sup>**

Boeing is an American aerospace giant. It manufactures commercial and defense aircrafts and provides related services. It has a long history with Russia and has been engaged in various activities there since very early in Russia's chaotic transitional period.

Andrei Nikolayevich Tupolev, considered a father of Russian aircraft development and his crew flew to Seattle and visited Boeing before World War II. During the war, the Soviet Union received Boeing airplanes. In 1975, in a project in which Boeing participated,

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<sup>9</sup> Seil, Bill (2010), "Down-to-earth success," *Boeing Frontiers*, December 2010-January 2011, and other materials on Boeing's website, are referred.

Soyuz and Apollo docked together in space.

As per Table 5, Boeing opened its technical research center in Moscow amid the chaos just after the collapse of the USSR. In the middle of the 1990s, it participated in a joint Sea Launch project to place commercial satellites into orbit. In 1997 the Russian airlines Aeroflot placed an order for 737-400s, the first jets ordered by Russia. In the 2000s, Boeing agreed to a strategic partnership with the Russian government and corporations, e.g., cooperation in the development of the Sukhoi 100, a next generation middle-range aircraft and the opening of a training center for aerospace engineers. Boeing and VSMPO, the world’s leading titanium supplier, established a joint venture, Ural Boeing Manufacturing. In 2011, Boeing’s financial subsidiary and Sberbank, the largest bank in Russia, agreed to jointly develop aircraft financing and leasing.

**Table 5. Brief history of Boeing in Russia**

Sept. 1993	Boeing opens technical research center (scientific technological center) in Moscow
1995-98	VSMPO becomes Boeing’s certified supplier of titanium
1995	Boeing, RKK “Energia” and others create a joint project “Sea Launch” to place commercial satellites into orbit (first launch was in 1999)
Apr. 1997	Aeroflot places an order for 10 of 737-400s, the first jets ordered by Russia
1998	Boeing opens design center in Moscow
Apr. 2001	Boeing agrees on strategic partnership with Russian Aviation and Space Agency
July 2001	Boeing and Sukhoi Civil Aircraft agree to on a long term cooperation for “Russian regional airplane, “ i.e., the development of the Sukhoi 100
Aug. 2001	Boeing and aviation complex Ilyushin announce the opening of a training center for Russian aerospaceengineers in Moscow
2004	Boeing and Russian Ministry of Industry and Energy sign a memorandum on participation of Russian companies in the development of 787 Dreamliner
June 2007	Boeing and United Aircraft Corporation agree to cooperate in manufacturing and engineering services for civil aviation
Aug. 2007	Boeing and VSMPO form a JV, Ural Boeing Manufacturing
June 2008	Boeing and United Aircraft Corporation agree to expand cooperative fields, including implementation of educational and training programs
May 2011	Boeing and Sberbank agree to develop aircraft financing and leasing

Source: Boeing's brochure and relevant information.

Boeing has a long history with Russia. It is evidenced by not just duration, but also its commitment to the Russian industry and its collaboration with many local partners in a variety of fields since quite early in the transitional period.

### (2) Technical research center<sup>10</sup>

Boeing Technical Research Center was established in Moscow in 1993. Remembering the situation in Russia from 1992 through 1993, it is difficult to understand why Boeing expedited opening the Center. At the end of 1991, the Soviet Union had dissolved, in 1992 consumer prices rose 26 times annually and 1993 saw the political deadlock between President Yeltsin and parliament, which was finally resolved with military force.

The purpose of the Center was to tap the talent of Russian scientists and IT specialists for the development of commercial aviation and space technologies. As a matter of fact, due to government malfunction and the state as a whole, some topnotch scientists and engineers had to leave the country, creating a brain drain, and Boeing was able to recruit these talents relatively easily in Moscow.

Boeing has engaged in advanced research<sup>11</sup>, for example, developing new materials, prototypes, other technologies including IT, experimental models and aerodynamic research. Boeing and many Russian state and private-sector partners, such as the Russian Academy of Science and Luxoft have been cooperating with each other in research activities. More than 500 scientists, technical specialists and programmers from various organizations participate in many Boeing projects.

### (3) Design center

Boeing Design Center was founded in Moscow in 1998. It is currently the largest design center in its operation. Nearly 1,200 engineers work for development of Boeing's commercial airplanes and are engaged in detailed design and stress analysis. Out of this 1,200, more than 1,000 engineers are contractors from engineering service companies and 150 are Boeing's own full-time staffers. People in Moscow and Seattle have been engaged together in round-the-clock design and construction-related work on civil aircrafts for the last 10 years or more.

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<sup>10</sup> "Boeing v Rossii (Boeing in Russia)," a Boeing brochure, is referred.

<sup>11</sup> Boeing and Russian cooperative projects are introduced in *Computational Fluid Dynamics 2010: Proceedings of the sixth international conference of computational fluid dynamics*. In Part VI of this volume, two papers on Boeing-Russian cooperation are reported, i.e., Kravchenko, S.V. et al. (2010), "Fifteen years of Boeing-Russian collaboration in CFD and turbulence modeling/simulation" and Shur, M.L. et al. (2010), "LES-based numerical system for noise prediction in complex jets."

The Design Center in Moscow introduced modern computer technologies in its early stages. It initiated a unique training program for Russian engineers to master advanced skills and knowledge of computer-aided-design (CAD), project management, quality control and more. In 2006 it received AS9100 certificate, a widely adopted and recognized quality standard for the aerospace industry.

#### (4) Ural Boeing Manufacturing

Ural Boeing Manufacturing is a 50/50 joint venture between Boeing and VSMPO-Avisma, a supplier of titanium. Boeing appointed VSMPO a certified supplier of titanium back in the middle of the 1990s and both companies have a long collaborative history. VSMPO-Avisma is a majority owned subsidiary of Rossiiskii Tekhnologii (Russian Technologies), a strategically owned state corporation. It was founded in 2009 in a remote area of the Ural Mountains in the Sverdlovsk region.

Location is said to be critical. VSMPO-Avisma operates a titanium mill on the same site and thus chips are transported to the Boeing manufacturing facilities very quickly. Forgings are also produced there for parts as well as molds of parts for Boeings airplanes. In order to avoid troublesome trade issues when titanium is once exported and unusable chips have to be returned to Russia, it is important to keep the chips within Russia. This was the project's first idea.

Titanium is a strong, stable and corrosion-resistant material which fits with composite materials used for the 787 Dreamliners and the next generation 737s. The joint venture actually supplied the titanium-made parts for those aircrafts. For Boeing this project is quite important because it assures Boeing a stable supply of titanium. On the other hand, even for VSMPO-Avisma it is significant due to an ownership incentive and the involvement of titanium processing.

#### (5) Other activities in Russia

Jeppesen is a Boeing subsidiary that provides air, marine and surface transportation industries with navigation information services. It had its first contract with Aeroflot, the Soviet airlines back in 1972. It opened its Moscow office in 2000 for air navigation and its St. Petersburg office in 2007 with approximately 100 specialists mainly for marine navigation. Jeppesen also has a long history of collaboration and operates in a variety of fields.

Boeing Capital Corporation, the aviation financial and leasing arm, signed an agreement with Sberbank, Russia's largest commercial bank for aircraft financing and leasing for not only Russia but Central Asian markets as well. Both companies intend to work jointly to identify and pursue financial projects for current and potential customers.

The agreement specifies information exchange as well as education of aircraft financing for Sberbank specialists. Boeing's commitment to the Russian market is therefore reconfirmed.

#### (6) Evolution of Boeing and Russia

Boeing has received orders from Russian airlines for 210 civil aircrafts, including next generation 737s and 787 Dreamliners, which will be filled in the near future. Details are shown in Table 6. We can conclude that Boeing has used various approaches with Russia that have led to collaborative relationships and to the sale of its products and services in the Russian market.

Boeing's activities and Russia as a business location seem to have evolved together. First, Russia offered prestigious scientific resources and significant human resources as a heritage of the Soviet Union (LA).

Second, Boeing recognized the available managerial resources in Russia even amid the chaos of the state dissolution, and actively accessed them. In addition Boeing was able to enhance its intangible resources (MR) and network resources with various Russian organizations (EN).

Third, Boeing created a learning organization by exploiting and exploring Russian resources. Boeing then improved its organizational and value promotion capabilities (OC).

**Table 6. Boeing aircrafts in Russia**

Airlines	737 classic	737 (order)	747	757	767	777	787 (order)	MD-11	Total
Aeroflot		50			11		22	3	86
Transaero	20	2	13		12	7			54
S7 Group	8	10			2				20
Volga-Dnepr Group			15						15
Moskva Airlines	3	10							13
UT Air	20			2					22
Total	51	72	28	2	25	7	22	3	210

Source: Boeing's brochure and relevant information.

Fourth, Boeing was able to access vast aircraft markets in Russia and the CIS (Commonwealth of Independent States) countries, natural resources (titanium) and programming capabilities of Russian engineers (Design Center) (LA).

Fifth, Boeing further enhanced its MR and EN. Finally, Boeing influenced industrial policies through various cooperative arrangements with Russian authorities and prestigious private sectors (BI). We may therefore consider "Boeing in Russia" as a typical case of the co-evolution of businesses and locations.

## **5. Concluding remarks**

Based upon the above discussion, three points should be raised in our concluding remarks. First, when we study international business, it is quite advantageous to pay more attention to business location and to explore the interaction between firm activities and these locations. Business locations have two aspects, locational assets and business institutions. Firms try to exploit the former by conducting various activities, and to minimize costs incurred by business institutions. The FL framework is a tool for analyzing such dynamism and is suitable particularly for emerging economies. In the context of Russia's transitional economy over the last two decades this framework is helpful for understanding the drastic changes of the location and evolutionary commitment of some foreign and local firms to the Russian market.

Second, the commonality of firm activities and the business location should be pointed out. Russia is thought to be a unique market and many people recognize that another lens to look at and a different approach and specific set of tools are required in order to cope with the Russian market. However, as per our discussion of software firms and Boeing's engagement, there is a little difference between Russia and other emerging and even advanced countries. It is true that Russian state corporations behave quite differently in comparison to private ones, but this is mainly due to ownership and the distance from the government and its policies. Nationality affects a little. If we look at Gloria Jeans or OMZ and Kalina, which bought Western firms so as to enhance their competitive advantages by combining those valuable foreign assets, corporate values and behavioral patterns of some Russian companies are similar to those of their Western counterparts.

Third, the present research on Russian and foreign firms in Russia, is still limited in order to fully support the FL framework. There is much commonality between Russian and Western firms. At the same time, basic features of business locations between the two are similar. As per the FL framework, business locations and firm activities seem to co-evolve. However, there still remain unique patterns of firms and their locations. We need to conduct further field research. Qualitative and quantitative studies will supplement each other, which are expected to provide good supports to the FL framework.