MASTERARBEIT /MASTER'S THESIS

Titel der Masterarbeit /Title of the Master's Thesis

«Market Entry Theory: Theoretical Perspectives Specifics of construction chemicals industry when entering the Russian market»

verfasst von / submitted by

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angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of

Master of Science (MSc)

Wien, 2020 / Vienna, 2020

Studienkennzahl lt. Studienblatt / degree programme code as it appears on the student record sheet:	UA 066 914
Studienrichtung lt. Studienblatt / degree programme as it appears the student record sheet:	Masterstudium Internationale Betriebswirtschaft
Betreut von / Supervisor:	Univ.-Prof. Dr. Wieland Müller

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List of abbreviations

IV: Institutional View
MNC: Multinational corporation
OLI: Ownership - Localization - Internalization framework RBV: Resource-based View
R&D: Research and development
SMM: Social-media marketing
TCA: Transaction Cost Analysis
VRIN: Valuable - Rare - Imitable - Non-Substitutable WOS: Wholly Owned Subsidiary

English Abstract

The construction chemicals industry in Russia has been growing rapidly in the last decades. Many European manufacturers of construction chemicals are already successfully operating in the Russian market. This paper provides an overview of the Market Entry Theory and contributes to current literature by investigating the construction chemicals industry in Russia based on the Eclectic Framework. The ARDEX Group case study was taken to define how the theoretical perspectives described in this paper affect the real choices of managers and what would be an alternative entry mode choice for ARDEX based on the Eclectic Framework. Moreover, a SWOT-analysis was conducted for ARDEX Russia in order to have a better overview of company's performance. It was concluded that according to the Eclectic Theory an alternative market entry mode for ARDEX could be Licensing or Equity Joint Venture. However, ARDEX entered the Russian market through exporting and then established a Wholly Owned Subsidiary with low resource commitment. Research states that manufacturers of construction chemicals tend to prioritize and protect their firm-specific advantages and tacit know-how through entering the foreign market with Wholly Owned Subsidiaries. This paper also demonstrates that it is likely for the construction chemicals companies to consider high resource commitment when entering the Russian market.

Zusammenfassung

Die Bauchemieindustrie in Russland ist in den letzten Jahrzehnten rasant gewachsen. Viele europäische Hersteller von Bauchemie sind bereits erfolgreich auf dem russischen Markt tätig. Diese Arbeit bietet einen Überblick über die Markeintrittstheorie und trägt zur aktuellen Literatur bei, indem es die Bauchemieindustrie in Russland auf Basis von Eclectic Framework untersucht. Die Fallstudie der ARDEX-Gruppe wurde gewählt, um definieren zu können, wie sich die in dieser Arbeit beschriebenen theoretischen Perspektiven auf die tatsächlichen Entscheidungen von Managern auswirken und welche alternativen Markteintrittsstrategien für ARDEX auf Basis von Eclectic Framework gewählt werden könnten. Darüber hinaus wurde eine SWOT-Analyse für ARDEX Russland durchgeführt, um einen besseren Überblick über ARDEX Russland zu erhalten. Es wurde beschlossen, dass nach Eclectic Framework alternativen Markteintrittsstrategien für ARDEX Licensing oder Equity Joint Venture sein könnten. ARDEX trat jedoch durch den Exporting in den russischen Markt zuerst ein und gründete später Wholly Owned Subsidiary mit geringem Ressourceneinsatz. In dieser Arbeit wurde nachgewiesen, dass die Hersteller von Bauchemie dazu tendieren, ihre firmenspezifischen Vorteile und ihr implizites Know-how durch den Eintritt in den ausländischen Markt mit Wholly Owned Subsidiary zu priorisieren und zu schützen. Diese Arbeit hat aber auch gezeigt, dass es sehr wahrscheinlich für Bauchemieunternehmen ist, beim Eintritt in den russischen Markt einen hohen Ressourceneinsatz in Betracht zu ziehen.

1. Introduction

Since the 1970s many studies have been conducted on the topic of Market Entry Mode choices, the theoretical perspectives explaining it and the variables affecting it. A number of researchers studied this topic in an attempt to structure the modes used to enter a new foreign market in one framework or theory. However, in the international business literature there is a huge amount of theories and findings addressing this issue, but no consensus regarding it. Many of the theories that aim to explain market entry choices very often contradict one another. This paper provides an overview of general Market Entry Theory as well as the four most commonly used theoretical perspectives to explain Market Entry mode choice - Transaction Cost Analysis, Resource-based View, Institutional Theory and Eclectic Theory (or Eclectic Framework)[1]. Brouthers K.D. and Hennart J.F claim in their article «International Entry Mode Research» that these four theories cover 90 % of the theoretical foundation for Market Entry mode choice[2].

A number of studies that have investigated Market Entry Theory[3] showed that the Entry Mode choices might also differ from industry to industry due to the environment specifics. This paper contributes to current literature by investigating the construction chemicals industry in Russia based on Eclectic Framework, mentioned above. Eclectic Framework was chosen as guideline for this paper for two main reasons. Firstly, Eclectic Framework provides an excellent layout for comparing the means of market entry and setting priorities. Secondly, the three variables used in Eclectic Framework (that will be explained in detail in chapter 4) - strategic referring to the Level of Control, environmental referring to the Resource Commitment, transaction referring to Dissemination Risk - relate to the other three theoretical perspectives mentioned above - Transaction Cost Analysis (TCA), Resource-based View (RBV), Institutional Theory (IT). However, TCA, RBV, IT are more specific and do not enable comparing multiple factors in one framework.

After applying Eclectic Framework to the construction chemicals industry, the ARDEX Group case study will be used as an example of how to suggest an entry mode based on the results of Eclectic

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1 Brouthers and Hennart (2007), p. 400-408.

2 Brouthers, Hennart (2007), p. 400.

3 Canabal and White (2008), p. 267-284; Brouthers and Hennart (2007), p. 395-425; Pan and Tse (2000), p. 535-554; Petersen and Welch (2002), p. 157-162; Pedersen et al., (2002), p. 325-345; Hill et al., (1990), p. 117-128.

Framework. ARDEX is a worldwide-known manufacturer of high-quality construction chemicals with a headquarter based in Germany. Represented in more than 100 countries with 55 production facilities, ARDEX´s revenue in 2019 reached more than $830 mil. Despite this, ARDEX is still expanding to new challenging markets. The theoretical framework underpinning this research is Eclectic Framework, mentioned above. By applying Eclectic Framework this paper will suggest an alternative entry mode choice ARDEX could have chosen when entering the Russian market. Obviously, ARDEX will not be able to use this information to enter the Russian market again, but taking this paper´s conclusions into consideration, ARDEX can use it when entering other international markets similar to the Russian one. Additionally, SWOT Analysis was conducted as an empirical part for this paper to estimate ARDEX´s general performance on the Russian market. Information from the SWOT-Analysis combined with the theoretical perspectives on market entry mode can be also used to improve general performance on the Russian market.

All in all, this paper attempts to establish a connection between the construction chemicals industry and existing theoretical approaches by answering the following research question: **how can the specifics of the construction chemicals market influence market entry decisions for Austrian manufacturers entering the Russian market on the case study of ARDEX Group?**

2. Market Entry Theory

The globalization process affects not only politics, cross-cultural communication, and economics, but also the firm's expansion outside home market boundaries. In the international business literature there are more than 20 different modes mentioned when it comes to international market entry. Anderson and Gatignon identify 17 different strategies[4], from Wholly Owned Subsidiaries to One Partner Organizations. Erramilli and Rao take a look at 11 different Entry Modes used by international companies[5]. Sharma and Erramilli distinguish between only 2 classifications - Wholly Owned Subsidiaries and Contractual Modes[6].

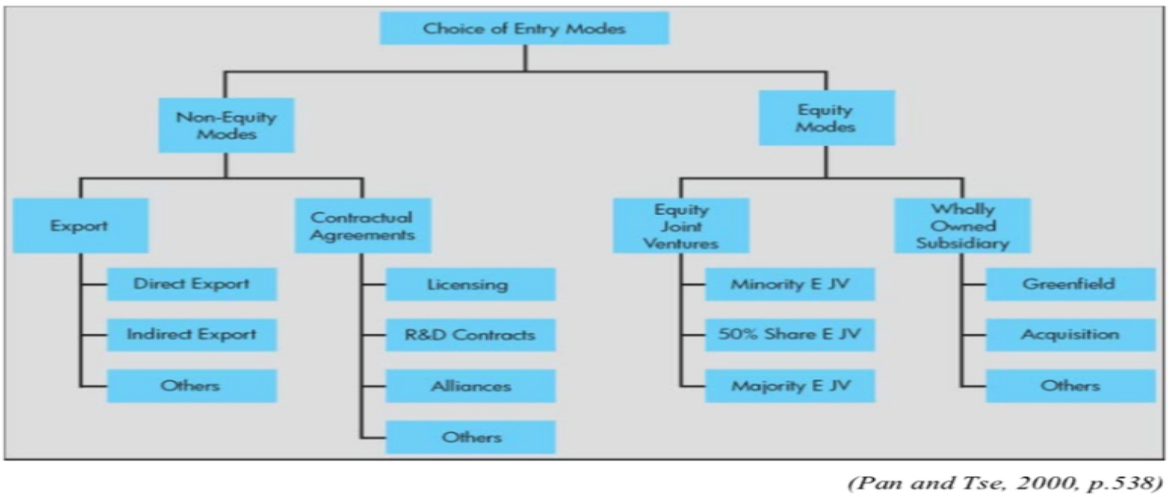
4 Anderson and Gatignon (1986), p.1.

5 Erramilli and Rao (1993), p.19.

6 Sharma and Erramilli (2004), p.1.

Similarly, as Figure 1 shows, in 2000 Yigang Pan and David K. Tse in their article «The Hierarchical Model of Market Entry Modes» divided Market Entry in two hierarchical modes: using a Non-equity mode that implies exporting or contractual agreements, or entering through an Equity mode that implies Wholly Owned Subsidiary or Equity Joint Ventures[7].

Figure 1: Hierarchical model of choice of entry modes



(Pan and Tse, 2000, p.538)

Figure 1: A hierarchical model of choice of Entry Modes
Source: Pan and Tse (2000)

The choice of the first level of hierarchy - equity or non-equity mode - is often more influenced by macroeconomic factors than lower levels when it comes to choose between Exporting, Contractual Agreements, Equity Joint Ventures and Wholly Owned Subsidiaries[8]. Regardless of whether firms enter the foreign market through contracts with various distributors and suppliers, using Franchising contracts, through setting up their own Sales Subsidiary, Joint Venture or establishing their own manufacturing infrastructure, various factors have to be taken into consideration.

International Market Entry mode research has received a lot of attention since the 1970s. Within the field of Market Entry Theory, a number of questions about theoretical perspectives explaining particular decisions were largely overlooked. However, in the last 15 years more than 100 empirical studies published on the theoretical perspectives behind market entry choice attempted to address this issue. While earlier studies researched which modes firms used to enter an international market but did not provide a theoretical explanation for these decisions, recent ones tried to fill this gap.

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7 Pan and Tse (2000), p. 538.

8 Pan and Tse (2000), p. 539.

Researchers like Keith D. Brothers, Jean-Francois Hennart, Shaver J.M., Brouthers L.E., Werner S., Anne Xanabal, George O. White, Yigang Pan, David K. Tse, Varinder M. Sharma, M. Krishna Eramilli made significant contributions to the theory of Market Entry mode choice and examined the reasons behind it.

Many theories have been discussed and criticized in recent studies; a lot of them contradict one another but are still interconnected. There is no golden rule or just one unified theory that can guarantee success when entering a new market. Each company is an individual case and very often companies do not pay closer attention to Market Entry Theory. This paper will have a look at four most commonly used theories: Transaction Cost Analysis (TCA), Resource-based view (RBV), Institutional Theory (IT) and Dunning's Eclectic Framework, using Eclectic Framework to give a practical example of how this theory can be applied to construction chemicals industry in Russia and ARDEX case. Despite the fact that ARDEX Group has been operating on the Russian market for 15 years by now, it is still useful to look back and see what alternatives could have existed and consider this knowledge for the future. As mentioned before, Brouthers K.D. and Hennart J.F claim in their article «International Entry Mode Research» that these four theories cover 90 % of the theoretical foundation for Market Entry mode choice[9].

The following chapters are dedicated to give a more detailed overview of four theoretical perspectives affecting entry mode choice and explain why Eclectic Framework was chosen for this paper as a guideline.

3. Theoretical Perspectives

3.1 Transaction Cost Analysis

Transaction Cost Analysis will be explained in this chapter and is one of the most commonly used theories when analyzing Market Entry mode choices. It has been intensively investigated by now. Three variables are determined to influence decision making when applying TCA - asset

[9] Brouthers and Hennart (2007), p. 400.

specificity, uncertainty and frequency[10]. Brouthers and Hennart looked at the frequency as the third variable[11] while some scholars like Williamson[12] distinguish between asset specificity, environmental uncertainty and behavioral uncertainty. Each of the variables of TCA will be explained below.

Asset specificity particularly has received a lot of research attention recently. Specific assets are investments that have less value outside the specific transactional relationship[13]. Common measurements for asset specificity are a firm's R&D and technology. For example, if a firm is using tacit knowledge and know-how that is difficult to transfer, it is more likely to establish a Wholly Owned Subsidiary or Equity Joint Venture. However, there is no consensus in the literature regarding what asset specificity really influences.

Some scholars like Erramilli and Rao[14], Brouthers, and Hennart[15] state that high asset specificity leads to choosing high control modes such as Wholly Owned Subsidiary. At the same time Beamish considers asset specificity independent from entry mode choice[16]. Erramilli and Rao came to the conclusion that high asset specificity leads to full ownership and low asset specificity to partial ownership[17]. Well-developed R&D of the company can lead to choosing an Equity mode over Non-equity[18]. In some industries asset specificity plays a more important role than in others. For example, in the aluminum industry it has been a significant determinant of the decision between vertical integration and contracting[19].

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10 Brouthers and Hennart (2007), p.400.

11 Brouthers and Hennart (2007), p. 400.

12 Williamson (1985), p. 181.

13 Williamson (1985), p. 182.

14 Erramilli and Rao (1993), p.21.

15 Brouthers and Hennart (2007), p. 401

16 Beamish (2009), p. 79.

17 Erramilli and Rao (1993), p.21.

18 Brouthers and Hennart (2007), p. 400-401

19 Fan (2000), p. 349

Another variable for Transaction Cost Analysis is uncertainty - internal and external. The main determinants for external uncertainty are country risk and cultural distance[20]. Factors used in different studies to identify country risk include industry growth, industry concentration ratio, market volatility, market diversity and political and economic stability. Cultural distance as an internal determinant was most often measured by the cultural dimensions identified by Hofstede[21]. External uncertainty makes it difficult for the firm to anticipate the contingencies of a contract in advance[22]. Internal uncertainty is linked to the incentives which partners might have to cheat or behave opportunistically. Zhao suggested that the more international experience a firm has, the less its internal uncertainty is and vice versa[23]. Williamson, however, considered uncertainty to be a problem only in combination with high asset specificity[24]. All in all, it can be stated now that a lot of research is still needed to identify whether uncertainty - both internal and external - influences the entry mode choice and in which way.

The third and last variable for Transaction Cost Analysis is frequency. Frequency determines how many transactions will be integrated within the firm's established subsidiary, joint venture or while using contracting to identify which entry mode is more beneficial for the firm to choose[25].

TCA was not chosen as a guideline for this paper because it doesn't take into consideration important factors such as resource commitment, competition, the general situation in country, scale economies etc. These factors can be crucial for some industries. For example, in the construction chemistry field resources are particularly important when it comes to producing one's own products. Even though, from the variables mentioned above, asset specificity refers to tacit knowledge which is also a resource, basic resources like good quality sand or cement which are crucial for the construction chemicals industry cannot be counted as specific assets. Here the firm must decide how much it is ready to invest not only to protect specific assets/resources but also how much it is ready to invest in basic resources. Taking this into account, TCA was not applied in this paper to examine construction chemicals industry in Russia.

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20 Zhao (2004), p. 526

21 Hofstede (2011), p. 8

22 Brouthers and Hennart (2007), p. 403-404

23 Zhao (2004), p. 527

24 Williamson (1985), p. 182.

25 Brouthers and Hennart (2007), p.404.

3.2 Resource-based View

There are several scholars who studied Resource-Based View from the theoretical perspective of entry mode choice. Resource-Based View suggests that firms either develop unique resources and expand them abroad or expand abroad in order to develop or acquire unique resources there[26]. An American professor, Jay Barney, developed the VRIN model which suggests that firm-specific capabilities and resources should be Valuable, Rare, Imitable and Non- substitutable[27].

In the business world, one of the earliest recognized resources was experience. International experience was also recognized as a firm-specific advantage for the Resource-Based View. Few scholars attempted to identify other advantages though. Besides international experience, Ekeledo and Sivakumar considered tacit know-how, firm reputation and proprietary technology to be a firm's resources[28]. Firm size, average financial performance, R&D intensity, and skilled workers were also identified by scholars like Claver, Quer[29], Multinelli, Piscitello[30] as resource-based variables.

Resource-Based View is not yet researched extensively. But in combination with other theoretical perspectives such as Transaction or Institutional theory, Resource-Based view is definitely worthy of more attention.

This paper excluded RBV as a guideline to examine construction chemicals industry of Russia and suggest an alternative market entry mode for ARDEX because the variables mentioned above do not provide a complete overview of the construction chemicals industry of Russia. To have it, RBV should be used in combination with other theories such as TCA, IT or Eclectic Framework.

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26 Brouthers and Hennart (2007), p. 404.

27 Barney (1991), p. 105-106.

28 Ekeledo and Sivakumar (2004), p.72-73.

29 Claver and Quer (2005), p. 54.

30 Multinelli and Piscitello (1998), p. 492.

3.3 Institutional View

There are «rules of the game» for each market in which a firm is operating. Institutional theory suggests that these «rules of the game» which are reflected in the institutional environment affect entry mode choice too.

Research on this topic was divided in two: the institutional environment in the home and host countries[31]. Earlier papers investigated the host country environment's impact. Recent studies consider that an institutional environment is divided into three dimensions: regulatory, cognitive and normative[32]. These factors from earlier and recent research vary by country but both influence decisions managers have to make. While examining three dimensions mentioned above, Yiu and Making came to a conclusion that those have a direct impact on entry mode choice[33].

Several studies investigated the cultural distance between the home and host countries and relate it to entry mode choice, forming the model of Institutional View. One of the very popular models to compare countries is that developed by Geehrt Hofstede in 1970s. This model includes six dimensions: power distance, uncertainty avoidance, individualism, masculinity, long-term/short-term orientation and indulgence[34]. Power distance defines the extent of inequality between powerful and less powerful society members. It also defines how less powerful members of organizations and institutions react to an unequal power distribution within society. To what degree a society accepts ambiguity is defined with next dimension of Hofstede's model - uncertainty avoidance. High level of uncertainty avoidance is typical for countries with clear structure, more rules, laws and strict behavioral codes. Low level of uncertainty refers to cultures with less anxiety and less stress towards any uncertainty. Individualism and its opposite, Collectivism, refer to which extent members of society are integrated into groups or tend to take care only of themselves. Masculinity "refers to the distribution of values between the genders"[35]. Long-term oriented societies focus more on the future, tend to have more savings and rely on the future whereas short-term oriented

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31 Brouthers and Hennart (2007), p. 405-406.

32 Scott (1995).

33 Yiu and Makino (2002), p. 680.

34 Hofstede (2011), p.8.

35 Hofstede (2011), p.8.

societies are the opposite. ”Indulgence stands for a society that allows relatively free gratification of basic and natural human desires related to enjoying life and having fun“[36]. Despite the importance of cultural distance claimed by many researchers, Cho and Padmanabhan[37], Brouthers and Brouthers [38] suggest that its impact on the entry mode is indirect. They also took into consideration variables like investment risk or decision-specific experience. Thus, to use the Institutional View as a guideline for this paper would not allow an overview of other important factors such as resources, transaction costs, etc.

3.4 Dunning's Eclectic Theory

Dunning's Eclectic framework, or Ownership-Location-Internalization - OLI Framework - or Eclectic Paradigm was developed by John H. Dunning in 1977 to explain the entry mode choice combining all the frameworks mentioned above. Thus, it was chosen as a guideline to examine the construction chemicals industry. The OLI framework, which focuses on Ownership-, Location-, and Internalization-specific advantages of the firm, is one of the most frequently used models in international business literature. One of the main reasons for it, and the reason why it was used for this paper, is that the Eclectic Paradigm includes the insights of other commonly used theoretical perspectives described above:

- Ownership relates to control and costs associated with the entry mode;
- Location focuses on resource commitment, resource availability and its costs;
- Internalization is linked to reducing transaction and coordination costs of the firm[39].

According to this framework, Ownership involves the characteristics of the Resource-Based View, Location relates primarily to Institutional View, and Internalization uses the insights from Transaction Cost Analysis[40].

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[36] Hofstede (2011), p.8.

[37] Cho and Padmanabhan (2005), p. 308.

[38] Brouthers and Brouthers (2001), p.177.

[39] Canabal and White(2007), p. 269.

[40] Dunning (1980), p.12-13.

A number of studies have explored the relationship between the Eclectic Paradigm and entry mode choice. Padmanabhan and Cho discovered the significant role of ownership advantage for entry mode choice[41]. Anand and Delios found out that location specifics influence the mode choice[42]. Some of the theories hypothesize that the Eclectic Framework affects manufacturing companies and service-oriented companies differently[43]. Scholars like Nakos, Brouthers and Dimitratos in their article «SME Entrepreneurial Orientation, International Performance, and the Moderating Role of Strategic Alliances» applied this paradigm to small- and medium-sized enterprises and studied the difference of entry mode choice[44]. When Agarwal and Ramaswami studied U.S. equipment-leasing companies and their entry mode choice, both came to the conclusion that all three determinants - Ownership, Location, and Internalization advantages - influence the mode choice[45]. Moreover, Brouthers, Brouthers and Werner concluded that firms which focused on location-specific, ownership-specific and internalization advantages had more successfully performing subsidiaries[46].

To discuss the specifics of the market entry choice of chemistry-based manufacturers, a combined unified framework needs to be used to examine all of the influencing factors. Eclectic Framework as described by Hill et al. provides such a framework[47]. An advantage of using Eclectic Framework as a guideline is that it allows one to combine and compare different factors and theories when examining entry mode choice.

41 Padmanabhan and Cho (1990), p.48.

42 Anand and Delios (1977), p. 581.

43 Tatoglu and Glaister (1998), p. 283

44 Nakos, Brouthers and Dimitratos (2002).

45 When Agarwal and Ramaswami (1992), p.25.

46 Brouthers, Brouthers and Werner (1999), p.833.

47 Hill, Hwang and Kim (1990), p. 120.

4. Eclectic Framework

As mentioned above in this paper, current studies appear to support the notion that there are two choices of entry mode: Non-equity modes which include Contractual Agreements and Exporting, and Equity modes which include Wholly Owned Subsidiaries and Equity Joint Ventures. Each choice is often related to the degree of control a firm wants to keep over the firm-specific advantages. Nevertheless, more recent research tends to show that different entry modes are influenced by a huge number of interrelated criteria and for this reason cannot be viewed as isolated decisions.

Hill, Hwang and Kim in their paper «An eclectic theory of the choice of the international mode» criticized the attempt of Anderson and Gatignon[48] to explain the entry mode choice by only applying Transaction Cost Analysis. They claim that the overall global strategy which the company is using is also very important for entry mode choice. In practice, whether the company is using a multi-domestic or global strategy influences the decisions managers make. Hill and his colleagues studied Eclectic framework that combines three variables - Strategy, Environment, Transaction - and three constructs - Control, Resource Commitment and Dissemination Risk - to explain the entry mode choice. They concluded that despite the fact that each variable might suggest a different entry mode, a trade-off between these variables is needed to achieve better performance[49]. According to Eclectic theory each entry mode is consistent with a different construct be it Control, Resource Commitment or Dissemination Risk. In the following chapter these constructs and their relation to entry mode will be discussed in more detail.

4.1 Control

Different entry modes correspond to different Levels of Control[50]. Hill, Hwang and Kim defined control as «authority over operational and strategic decision-making»[51]. The lowest Level of Control is to be expected with licensing or exporting because in this case the licensee or the

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48 Anderson and Gatignon (1986).

49 Hill, Hwang and Kim (1990), p. 118.

50 Caves (1982).

51 Hill, Hwang and Kim (1990), p.118.

exporter partially takes control of the firms' operation. Wholly Owned Subsidiary is, on the contrary, seen as an entry mode where the main office keeps total control over the company even abroad. Joint Venture is an intermediate decision where control distribution is dependent on the number of parties involved and the number of shares each party is holding.

4.2 Resource Commitment

Resources defined as «dedicated assets that cannot be redeployed to alternative uses without cost (loss of value)» influence the market entry mode choice too[52]. Tangible and intangible resources a firm possesses require different commitment levels.

The lowest resource commitment level is being used when the firm enters a market via Licensing. Here a licensee decides over revenue-generating assets and their usage. For the Wholly Owned Subsidiary, the firm's Resource Commitment level is the highest because all the expenses associated with setting up a subsidiary in a new market are paid for by the mother company[53]. The same goes for Joint Venture Resource Commitment, which depends on the amount of parties involved and their ownership split.

4.3 Dissemination risk

«Dissemination risk refers to the risk that firm-specific advantages in know-how will be expropriated by a licensing or joint venture partner»[54].

Firm-specific advantages generated from know-how, marketing knowledge, technology usage might be assimilated by others. For example, in the case of Licensing the risks that the licensee will adopt the firm-specific advantages is very high because the licensee has access to this knowledge[55]. For Wholly Owned Subsidiaries the risk is relatively lower, whereas in Joint Ventures it depends on the ownership split.

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52 Hill, Hwang and Kim (1990) p.119

53 Hill, Hwang and Kim (1990), p.118.

54 Hill and Kim (1988), p. 98.

55 Hill and Kim (1988), p.93-94.

The figure below, which is used in Eclectic theory for the decision framework, shows which type of entry mode implies which Level of Control, Resource Commitment and Dissemination Risk.

C. W. L. Hill et al.

Table 1. The characteristics of different entry modes

	Constructs		
Entry mode	Control	Resource commitment	Dissemination risk
Licensing	Low	Low	High
Joint venturing	Medium	Medium	Medium
Wholly owned subsidiary	High	High	Low

Figure 2: The characteristics of different entry modes
Source: Hill et al. (1990)

Next, this paper will discuss each variable from a theoretical perspective and in later chapters apply this framework to the construction chemicals industry to answer the research question **how can the specifics of the construction chemicals market influence market entry decisions for Austrian manufacturers entering the Russian market on the case study of ARDEX Group** and suggest an alternative entry mode choice for ARDEX.

4.4 Eclectic Theory variables

Besides constructs, Eclectic Theory suggests there are three variables affecting entry mode choice - strategic, environmental, transaction variables. Figure 3 below shows variables including their dimensions.

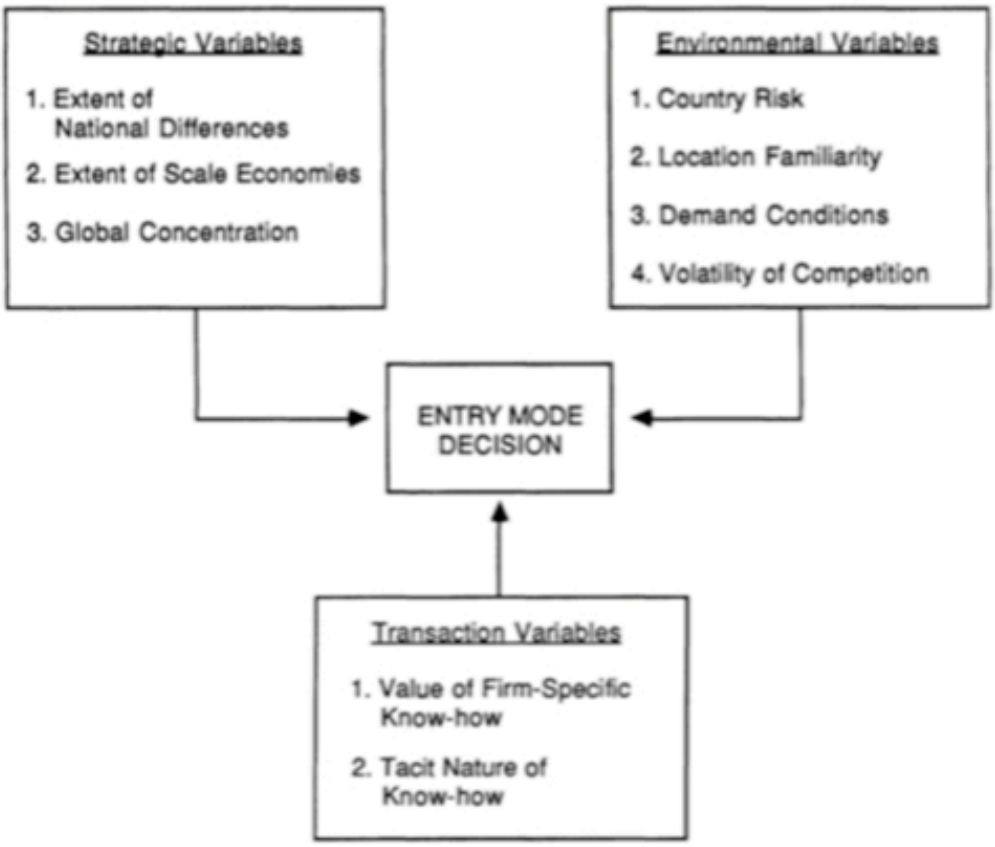

Figure 1. The decision framework.

Figure 3: The decision framework (1990)

Source: Hill et al. (1990)

4.4.1 Strategic variables

Strategic variables focus on the extent of national differences, extent of scale economies and global concentration of competition to investigate the extent to which each one influences entry mode choice. When entering a foreign market, strategic variables determine which degree of control a company wants to have or grant to partners[56]. In international business literature the most widely held view is that firms use global or multi-domestic strategies when expanding abroad. If a firm follows global strategy, which is a more centralized one, it prefers to keep a high level of control. Multi-domestic strategy implies that the firm believes that national markets differ widely.

[56] Hill, Hwang and Kim (1990), p.121-122.

Multidomestic expansion requires a firm to have a different marketing strategy, taking into consideration customers' preferences, competition, political and legal rules, and operating conditions in general. All in all, firms pursuing multi-domestic strategy are more likely to choose a low level of control[57]. Thus, such firms prefer Licensing or Contractual agreements over Joint Venture or Wholly Owned Subsidiaries.

However, due to globalization processes, many industries offer standardized products on all markets. Industries considered to be homogenous are aerospace, heavy construction equipment, semiconductors, computers, watches and heavy electrical equipment[58]. If the economies of scale and value chain are well developed, a company can offer and produce standardized products regardless of consumers' tastes and preferences. For this reason, when a firm pursues a global strategy, it prefers to keep maximum control and chooses Joint Venture or Wholly owned subsidiaries[59].

If choosing based on the strategy a firm is using, other variables have to be equal[60]. Hill and his colleagues also stated that the global industry is highly concentrated. It is explained by the fact that regardless of if firms pursue a multi-domestic or global strategy, there is an amount of companies who confront each other in all the markets all over the globe. Hill, Hwang and Kim suggest that if «other things being equal, when the need for global strategic coordination is high (the global industry is an oligopoly) MNCs[61] will favor high-control entry modes»[62].

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57 Hill, Hwang and Kim (1990), p.122.

58 Hill, Hwang and Kim (1990), p.121.

59 Hill, Hwang and Kim (1990), p.121.

60 Hill, Hwang and Kim (1990), p.121.

61 MNC: Multinational Company

62 Hill, Hwang and Kim (1990), p.121.

4.4.2 Environmental variables

Environmental variables include country risk, location familiarity, demand conditions and competition. Hill et al. proposed in their article that environmental variables influence market entry mode through resource commitment and strategic flexibility.

Country risk involves the differences managers face between home and host countries. Root split up country risk into general political risk, ownership risk, operation risk and transfer risk[63]. These being high, a firm is more likely to choose modes with low resource commitment.

Location familiarity is meant to consider both physical and cultural distance. Depending on the host country, cultural and economic systems might differ from the home country or be similar to it. Experience a firm has with a host culture plays an important role here. Published studies support the view that the greater this perceived distance between two countries is, the more likely a firm will choose lower resource commitment[64].

Demand conditions usually refer to general development of the given market. Markets in a declining stage tend to have low forecast accuracy compared to mature markets. For a firm to be able to decide about optimal resource capacity, it must be able to be certain about existing demand. Thus, the more uncertain the demand is, the more a company will favor low resource commitment to reduce the risks[65].

Competitive conditions have, according to Harrigan, a direct impact on the firm`s entry mode choice[66]. If the competition is volatile – unstable, rapidly changing – firms are likely to invest less in the resources. Intense competition requires quick responses and implies higher risks. If the competition is stable and technological, macroeconomic, demographic and social conditions are not volatile, then firms tend to invest and acquire more control.

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63 Root (1987), p.128.

64 Hill, Hwang and Kim (1990), p.122.

65 Hill, Hwang and Kim (1990), p.123.

66 Harrigan (1985a, c), p.140.

4.4.3 Transaction-specific variables

Business literature extensively discusses transaction-specific variables, also known as internalization theory. The literature suggests that granting firm-specific advantages while licensing or franchising increases the risk of the know-how being disseminated[67]. The same can be said about joint ventures.

Besides dissemination risk, which was already mentioned, opportunistic behavior and the bounded rationality of the managers impact the transaction-cost variables. Hill et al. suggested two types of transaction-cost affecting the company. First, the cost for negotiating, monitoring, and enforcing a comprehensive contingent claims contract. Second, the anticipated loss for unexpected circumstances. The model of Wholly Owned Subsidiary saves the first type of transaction cost, resulting in the tendency for firms to choose this type of ownership. The greater the costs associated with protecting firm-specific advantages from dissemination risk, the higher the chances a firm will invest more in resource commitment[68].

A number of studies also discussed the nature of the knowledge to be transferred. Very often this knowledge is a tacit one, or embedded in human capital and thus, it is more difficult to be transferred to other parties. Not having all necessary knowledge to generate some profits, licensee or licensor might not be able to succeed. Thus, wholly owned subsidiary is more likely to be chosen.

Hill et al. concluded that when "other things being equal, the greater the tacit component of firm-specific know-how, the more a MNC will favor high-control entry modes".

4.4.4 Summary of variables

All the variables mentioned above and the suggested entry mode choice for each of them, based on international business literature discussed before, are summarized in the following figure. Figure 4 summarizes all three variables described above and enables the use of this framework as a guideline for the construction chemicals industry in the following chapters. Summarizing data in such a framework enables one to compare variables and set priorities. Moreover, depending on what

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67 Hill, Hwang and Kim (1990), p.124.

68 Hill, Hwang and Kim (1990), p.124-125.

variable is set as a priority by a company, by assessing factors of each variable one can recommend an entry mode.

Variable (Hill)	*Level*	*Construct*	*Recommended entry Method*
Strategic Variables		**Level of control**	
Extent of National differences (consumer preferences, competitive situation, legal differences)	High	Low	Licensing/JV
	Low	High	WOS
Extent of scale economies	High	High	WOS
	Low	Low	Licensing/JV
Global Concentration	high	High	WOS
	low	low	Licensing/JV
Environmental Variables		**Resource Commitment**	
Country risk	High	Low	Licensing/JV
	Low	High	WOS
Location Familiarity	High	High	WOS
	Low	Low	Licensing/JV
Demand conditions	High	High	WOS
	Low	Low	Licensing/JV
Volatility of competition	Low	High	WOS
	high	low	Licensing/JV
Transaction Variables		**Dissemination risk**	
Value of firm-specific know-how	High	High	WOS
	Low	Low	Licensing/JV
Tacit Nature of know-how	Low	Low difficulty to share info	Licensing/JV
	High	High difficulty to share info	WOS

Figure 4: Eclectic Framework variables

Source: own illustration based on chapter 4

The next chapter will apply Eclectic Framework to the construction chemicals industry of Russia. After assessing it using three variables described above, in chapter 5.4 assessments of each variable will be summed up in a table using Figure 4 as a framework to suggest an entry mode for ARDEX.

5. Construction chemicals industry in Russia and the Eclectic theory

Before applying the Eclectic theory to the construction chemicals market in Russia, it is necessary to define what was understood under construction chemicals when working on this paper.

Since the construction industry is actively growing around the globe, companies operating in this sector strive to expand and to be present in international markets with the biggest potential growth. A number of studies have been conducted on topics like market growth, market potentials and industry growth. However, less attention has been paid to the construction chemicals industry in particular.

This paper refers to manufacturers of chemistry-based construction products like primers, filling compounds, adhesives, waterproofing systems, concrete repairing systems, smoothing compounds, and grouts as the construction chemicals industry. Products of chemistry-based materials are divided into three categories: low segment, standard segment, and premium segment products. Regarding the quality of the products, raw materials used, various characteristics of the products, as well as their advantages and disadvantages, there are several categories companies can be divided into: standard or premium quality are the most commonly used definitions among «people in the field».

As mentioned above, the construction industry is one of the most rapidly growing industries throughout the world. Hence, researching this field from theoretical perspectives to understand it better is very important. Understanding the specifics of a certain industry will help companies to develop strategies before entering the market as well as to adjust accordingly after entry.

The following sections will discuss in detail each variable of the Eclectic theory in construction chemicals industry. Since the goal of this paper is to examine how the specifics of the construction chemicals market can influence the market entry mode of Austrian manufacturers entering into the Russian market, the focus will be on the Russian market as the host country, but the home market – the Austrian market - will be considered as well for the purpose of comparison.

5.1 Strategic variables in the Russian construction chemicals market

The extent of national differences and scale economies between home and host country, as well as the global concentration of the competition will affect the company's entry mode choice. These factors were summed up by Hill et al.[69] under strategic variables. In the following sections each of the factors will be discussed in more detail.

5.1.1. Extent of National differences

According to Eclectic theory, when national differences between the home and the host country are high, a firm is likely to choose lower control modes like licensing or joint venture[70]. These differences apply to the consumer preferences, competitive landscape and legal situation in both countries.

Consumer preferences

There is an overall trend in the Russian market to prefer products and goods produced outside Russia over those produced in Russia. Generally, many consumers associate «Made in Russia» with lower quality compared to imported products. The United states, Austria, and Germany have established themselves as high quality providers in the Russian market through exporting high quality products.

Nevertheless, many international companies, including Austrian and German ones, establish production facilities in Russia for various reasons like saving logistical costs, being more flexible and acquiring a bigger market share. Local firms also build more production sites using international technologies and try to acquire more clients to be competitive on the market and deliver good quality for an acceptable price. The brand loyalty of Russian consumers has not been extensively researched yet. But the logical conclusion to be made is that this leads to an increase in variety of the products which then leads to changes in consumer preferences. The market demand for locally produced construction chemicals increases as well.

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[69] Hill, Hwang and Kim (1990), p.121.

[70] Hill, Hwang and Kim (1990), p.121-122.

When researching the entry modes of the U. S. beer-producing companies into the German market, Adams concluded that consumer choices and consumer preferences are not the same thing[71]. Consumer choices can be based on the transaction costs. More price-sensitive customers might choose products with a lower price even when it doesn't fulfill all of their preferences (Adams, 2006). Since German or Austrian imported products are associated with higher price, this statement can be applied to the construction chemicals industry as well.

The next table, published on Statista[72], shows what countries were the main importers to Russia in the year 2017.

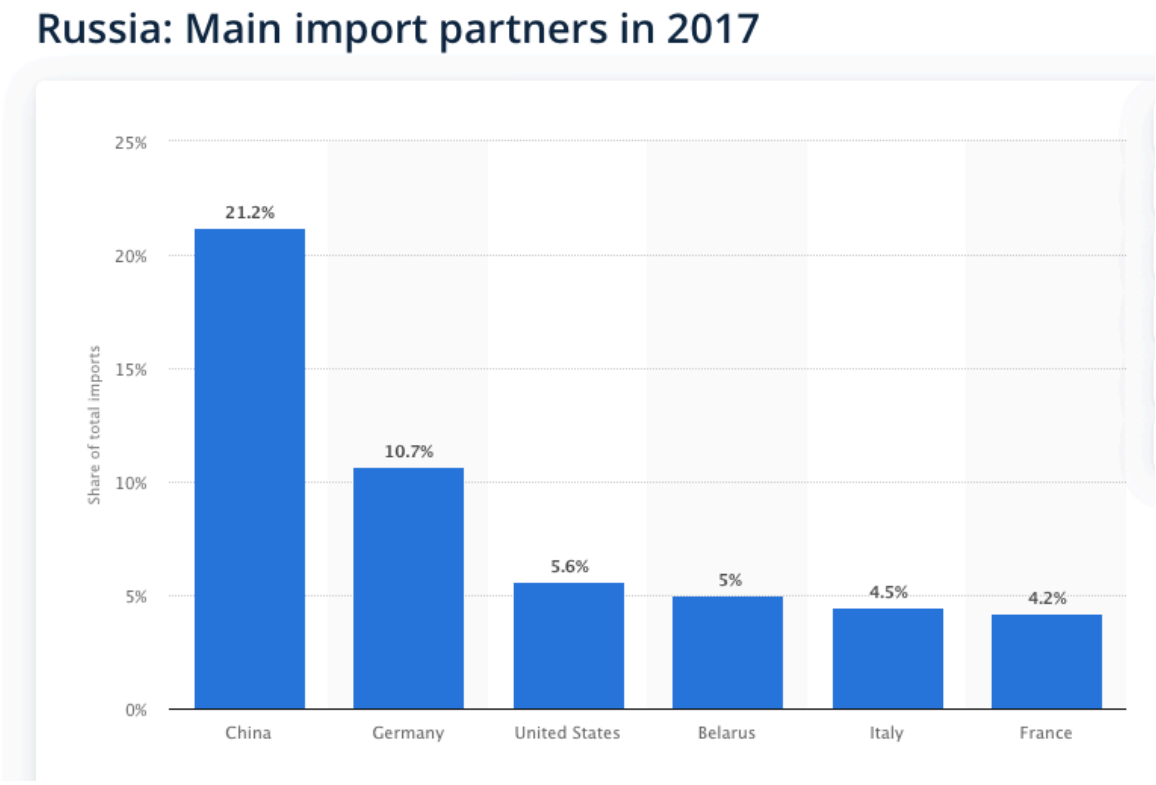

Figure 5: Main import partners of Russia (2017)

Source: https://www.statista.com/statistics/271355/main-import-partners-for-russia/

[71] Adams (2006)

[72] Statista: German online portal for statistics, which collects data derived from the economic sector and official statistics available in English, French, German and Spanish.

The statistics show that despite the sanctions which mostly applied to the U.S. and Europe, Germany still became the second most significant import partner of Russia in the year 2017. This table refers to general imports to Russia and construction chemicals might be just a part of it.

Competitive situation

The modern construction market in Russia represents a large number of manufacturers and broad product portfolios. Many foreign companies have established their production sites in Russia, making it possible for customers to purchase high-quality products at lower prices.

The following section aims to provide an overview of main the competitors and general competitive landscape in order to be able to assess the construction chemicals industry for Russia and recommend an alternative entry mode choice.

According to yandex.ru[73] the leading positions in 2019 are occupied by representatives of such brands as: KNAUF, VETONIT, CERESIT, UNIS, GLIMS, OS- NOVIT, VOLMA, RUSSEAN. It must be mentioned that these brands fall into different branches of the market and correspond to different price and quality categories.

Founded in 1936 and still a family-owned business, KNAUF is a German manufacturer with more the 250 production facilities in over 86 countries all over the world. KNAUF entered the Russian market in 1995 and has established several production facilities there. According to the official KNAUF website knauf.com it is considered to be one of the biggest market players in Europe, the United States, Russia, Asia, Africa and Australia.

WEBER VETONIT, which belongs to a French multinational corporation Compagnie de Saint-Gobain S.A., is another exporter who is successfully developing its business in the Russian market. Since 2012 WEBER VETONIT has its own production site in Russia as well.

Another German exporter - CERESIT - also successfully established its brand in the Russian market. The CERESIT brand belongs to HENKEL, a German manufacturer of laundry, home care,

[73] yandex.ru – the most popular Russian search engine.

cosmetics, personal care and adhesive technologies which was founded in 1876. CERESIT was acquired by Henkel in 1986 and strengthened its product portfolio of chemical products for building materials (ceresit.com). In 2003 CERESIT established its production facility in the Russian city Kolomna (cere- sit.ru).

UNIS is a Russian manufacturer of dry building mixes that was founded in 1994 and currently has five production facilities in Russia. UNIS delivers not only to the Russian market but also has a market share in CIS countries. UNIS products correspond to a lower price category. According to the analytical agency bestresearch.ru UNIS is the number one manufacturer of tile adhesives in Russia (unistrom.ru).

OSNOVIT is another Russian manufacturer of construction chemicals in a low pricing category. The brand name OSNOVIT belongs to Cedrus company – a manufacturer of various building materials - that was founded in 1998 (cedrus.ru).

VOLMA and RUSEAN are two further Russian manufacturers of building and finishing materials based on cement and gypsum with a strong market position in a low pricing category.

The list of market leaders mentioned is based on the search queries of Russian customers. Nevertheless, the fact that not all successfully developing companies have a strong internet presence has to be taken into consideration. Another factor to be considered is that these queries are based on the private needs of customers. Professional users tend to buy directly from the manufacturer or distributor.

To give an objective estimation of the overall competitive situation is a very time- and resource-consuming process. It requires involving more official sources as well as more time to complete it. However, for the Eclectic model it can be concluded that the competitive situation in Russia is affected by both - international and domestic companies. The huge number of domestic brands present in the Russian market might make it difficult for international companies to penetrate in. This is one of the reasons that most international brands prefer to establish a wholly owned subsidiary.

Legal differences

Legal differences between the home and host countries have a direct impact not only on the entry mode choice but also on the importing activities of the country in general. These mostly include laws and regulations both in the home and host countries.

One of the most important laws established in Russia was the Russian Import Substitution law[74] in 2014. However, it has to be considered that currently there is a large amount of concepts, regulations, articles, and government programs that use term «import substitution» in different contexts. In this paper import substitution will be defined as: «an economic strategy aimed at encouraging national industrial growth so as to reduce imports of manufactured goods»[75]. There are many reasons behind this law. Stryabakova claimed that import substitution was a consequence of the economic sanctions against Russia in 2014 and the sharp depreciation of the Russian ruble against world currencies[76]. She stated that import substitution was aimed to mobilize internal resources that will support the Russian economy and prevent it from collapsing[77].

Many other scholars tried to identify and analyze changes in the Russian economy that lead to passing the law of import substitution. V.K. Fas'tsman suggested that the following challenges had a great impact on the Russian economy in 2014:

- the world price of oil, which decreased twice;
- the exchange rate of the ruble decreasing twofold;
- the decrease in the growth rate of the Russian economy to almost zero in 2014;
- problems of searching for new suppliers for the imports outside the sanctions[78].

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74 Russian Import Substitution law - A development strategy whereby a government restricts or forbids the import of industrial material and subsidizes local material.

75 https://www.oxfordreference.com/view/10.1093/oi/authority.20110803095959533

76 Stryabakova (2017), *«Import Substitution in the Belgorod Region in the Context of Economic Security».*

77 Stryabakova (2017), *«Import Substitution in the Belgorod Region in the Context of Economic Security».*

78 V.K. Fas'tsman (2015), *«Import Substitution in the Economic Sectors of Russia»*

As for many industries and manufacturers, the import substitution law had mostly negative effects on the international construction chemicals industry.

The import substitution law was followed by another regulation from the Russian government: a prohibition against the usage of import materials for construction/renovation projects that were financed by the state. But this mostly affected importing companies and not those companies who switched from importing their products to establishing their own production facility.
The next regulation that negatively affected the construction chemicals sector is a mandatory product declaration for both domestic and international manufacturers. Since declaration and getting various certifications on raw materials, as well as fire security certifications and certification of various systems is a very costly and long-lasting process, some small local and international companies stopped their businesses due to financial losses. For those companies that continued producing their construction chemicals, it slightly affected the price increase.

Another difficulty for international companies, as mentioned above, was currency depreciation, particularly in 2014. Tradingeconomics.com[79] published exchange rates of world currencies throughout the years. The figure below shows how the exchange rate of the EURO to the Russian RUBLE developed in the last 10 years.

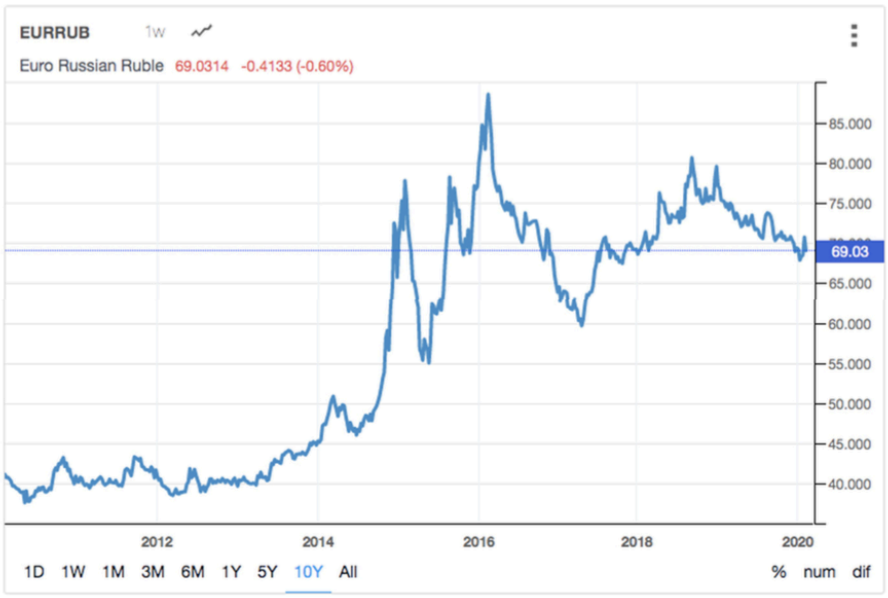

Figure 6: Depreciation of Russian Ruble from 2010

Source: https://tradingeconomics.com/eurrub:cur

[79] website, that provides its users with accurate information for 196 countries including historical data for more than 300.000 economic indicators, exchange rates, stock market indexes, government bond yields and commodity prices. Its data is based on official sources from government statistics.

From the graph it is clear that between 2014 and 2016 the Russian currency was strongly depreciated against the Euro. Along with other consequences for the global economy, this also affected some international importers in the construction chemicals industry. While some of the companies switched to modes with a higher level of control by establishing subsidiaries, some of the companies did not overcome the crisis and stopped operating in the Russian market.

All of the legal challenges listed above helped local manufacturers to protect their market and kept big manufacturers of chemistry-based construction materials from easily entering the Russian market.

With all the other factors being equal, the extent of national differences affected by consumer preferences, legal differences and the competitive situation being high enough, a firm is more likely to choose a lower control mode such as licensing or joint venture to enter the construction chemicals market in Russia[80].

5.1.2 Extent of scale economies

Hill et al. Suggested that the higher the chances to achieve a high level of scale economies, the more likely a firm will invest in a wholly owned subsidiary[81].

The corporate finance institute [82]defined the economies of scale as «cost advantage experienced by a firm when it increases its level of output». The construction chemicals industry is high in production by its nature. Usually, big batches are produced. Not only production, but also packaging, transporting, and warehouse costs are parts of the economies of scale. Rapid development of technologies lead to many processes being automized. Automation increased the general speed of production.

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[80]Hill, Hwang and Kim (1990), p.121-122.

[81]Hill, Hwang and Kim (1990), p.122.

[82] https://corporatefinanceinstitute.com/resources/knowledge/econom- ics/economies-of-scale/

Most manufacturers of construction chemicals strive to have broad product lines. The mix of offered products can also limit the economies of scale. The reason for this can be large setup costs when production has to be switched to other product. Also, packaging in different ways can limit the economies of scale even though most of the well-developed companies use different packing technologies to increase the economies of scale to reach higher level of output in shorter times.

Transportation improvement and developed road networks according to Adams (2006) led to increase in economies of scale of manufacturing companies.

Overall, for manufacturing companies compared to the ones providing a service, reaching a high level of scale economies might be very beneficial and help to win greater market volumes. Nevertheless, just the potential to achieve a higher level of scale economies is not enough reason for a company to invest in a Wholly Owned Subsidiary.

5.1.3 Global concentration of competition

If the market can be considered a global oligopoly, a Wholly Owned Subsidiary is a recommended market entry[83].

The analytic company visa.ru published the market shares construction chemicals producers have on the Russian market (2015).

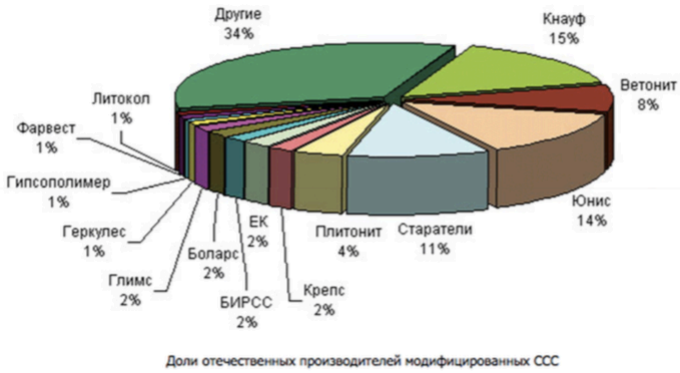

Figure 7: Market share of construction chemicals producers in the Russian market (2015)
Source: visa.ru

[83] Hill, Hwang and Kim (1990), p.122.

KNAUF, WEBER VETONIT, LITOKOL - the international manufacturers - have in general 24 % of the Russian market. 42 % belongs to domestic producers and 34 % is labeled as «others». However, this statistic also shows that there are four companies that hold 8%,11%,14%,15% of the market. Therefore, it can be concluded that Russian marker cannot be considered an oligopoly.

There are various types of competition including competition between various regions of Russia, domestic and imported brands, and between manufacturers that cover broader market segments and those who focus on the specific niches. That being said, and theoretically with all the other variables being equal, a construction chemicals manufacturer might want to enter the Russian market with a Wholly Owned Subsidiary. Yet, in practice, when considering other variables, some tradeoffs might happen when managers take a decision.

5.2 Environmental variables

The environmental variables that impact the level of resource commitment a firm is ready to invest in are country risk, location familiarity, demand conditions and volatility of competition[84]. Root divided country risk into general political situation, ownership and control risks, operations risks and transfers risk[85].

5.2.1 Country risk

With high country risks involved, a firm will most likely choose more flexibility which is provided by licensing or joint ventures[86]. Root[87] divided country risk into general political situation, ownership and control risks, operations risks and transfers risk.

theglobaleconomy.com has information about more than 200 countries including Russia. The website uses economic groups as well as the World Bank information to gather and compare data.

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[84] Hill, Hwang and Kim (1990), p.122.

[85] Root (1987)

[86] Hill, Hwang and Kim (1990), p.122.

[87] Root (1987)

Figure 8 shows a political stability index (-2,25 weak, 2,5 strong). Russian political stability was below 0 since 2002 which makes Russia, relative to other countries, a more unstable one.

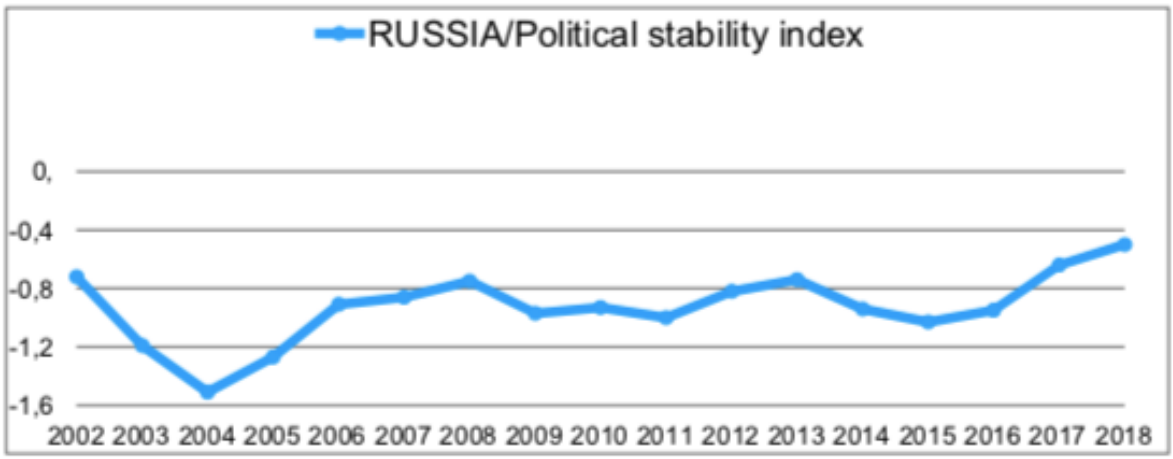

Figure 8: Russian political stability index 2002-2018

Source: theglobaleconomy.com , World Bank (https://www.theglobaleconomy.com/download-data.php)

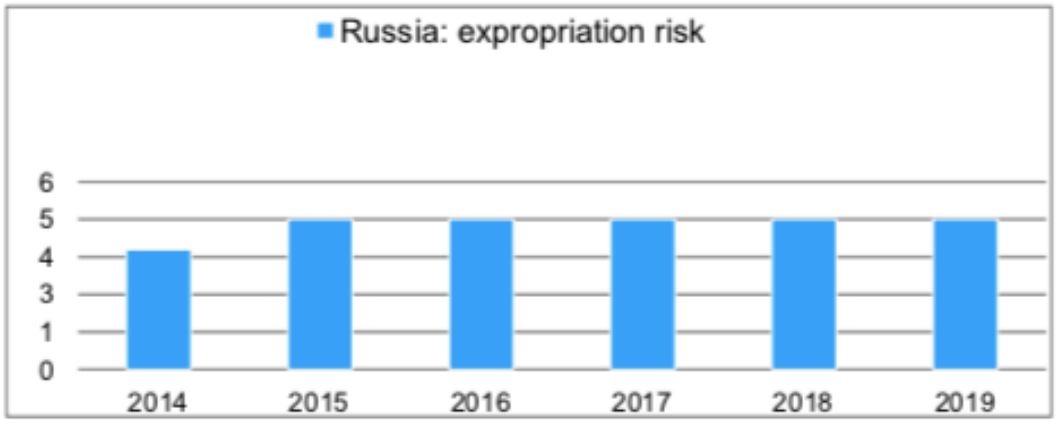

Figure 9: Expropriation risk in Russia 2014-2019

Source: theglobaleconomy.com , World Bank (https://www.theglobaleconomy.com/download-data.php)

The previously used platform, theglobaleconomy.com, was also used to assess ownership and control risks. For that, data showing expropriation risk in Russia was gathered. The data was available only for the last five years. Russia remained stable over that period, although five is considered to be a high level of expropriation risk, with the highest being seven. Figure 10 below shows the more detailed data.

Overall country risk as well as detailed information about each country are summarized in the Country Risk Assessment Map on coface.com. Russia is referred to as a country with a fairly high risk assessment (Figure 10).

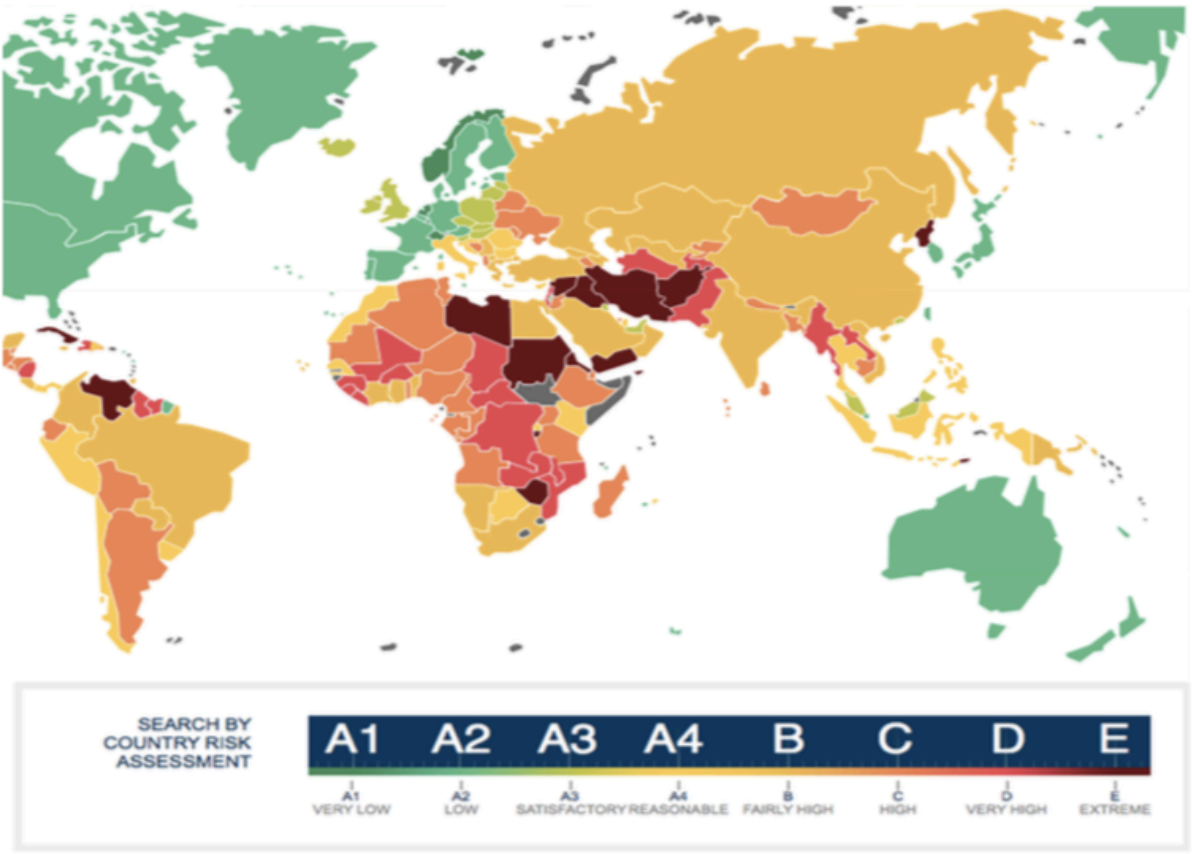

Figure 10: Country Risk Assessment Map

Source: coface.com

Considering the high country risk, it is recommend to enter Russian market with a high control mode such as Wholly Owned Subsidiary.

5.2.2 Location Familiarity

As mentioned above, location familiarity includes both cultural and physical distance. With low location familiarity, a firm is recommended to enter using Joint venture or Licensing[88].

To measure location familiarity many researchers use Hofstede's Cultural Dimensions Model. Hofstede developed a 6 dimension model that defines the level of power distance, individualism, masculinity, uncertainty avoidance, long term orientation and indulgence of the chosen country[89].

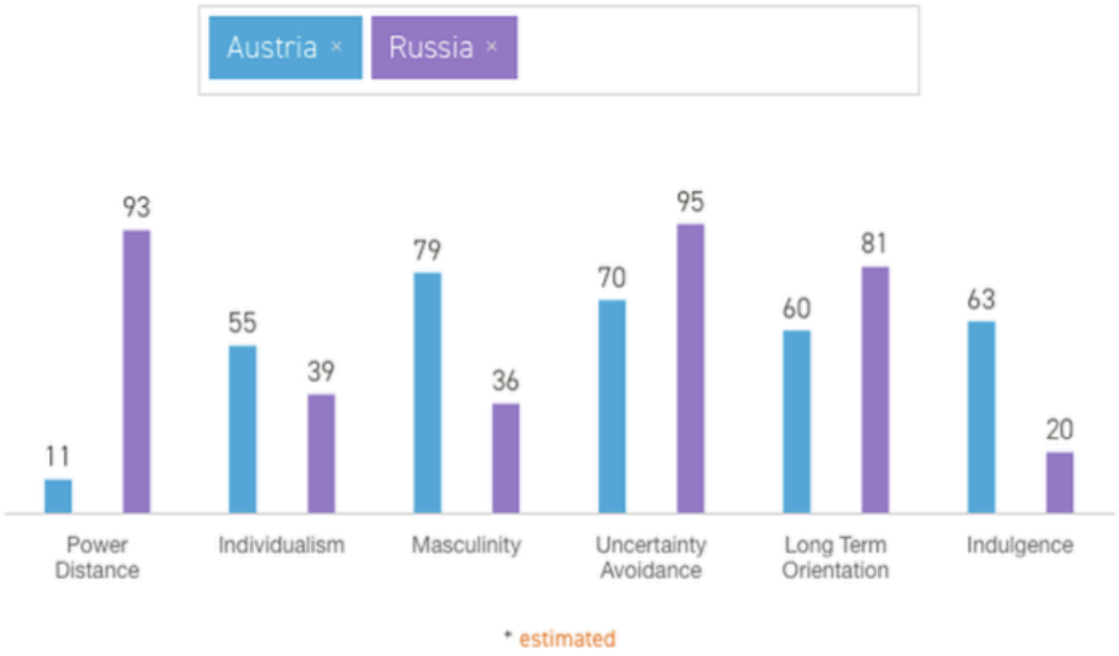

Figure 11: Hofstede's Cultural Dimensions Model: Austria and Russia
Source: https://www.hofstede-insights.com/product/compare-countries/

Figure 11 shows that, compared to Austria, Russia is more hierarchical (power distance), with a lower level of masculinity and very low indulgence level.

88 Hill, Hwang and Kim (1990), p.122.

89 Hofstede (2011), p. 8

All in all, the location familiarity level when an Austrian manufacturer enters Russian market can be defined as high. This leads to the conclusion that a firm is likely to choose lower levels of control - licensing or joint venture[90].

5.2.3 Demand conditions

Theory claims that if the demand conditions in the host market are heavily predictable and uncertain, a firm should choose low resource commitment and enter through Licensing or Joint Venture[91]. However, demand for imported products can be affected by laws and regulations of the country (as mentioned above - import substitution law) and by price sensitivity of the consumer. Figure 12 from theglobaleconomy.com gives an overview of how the import of goods and services decreased after the import substitution law was accepted. It must also be remembered that this statistic is influenced not only by the import substitution law but also many other factors.

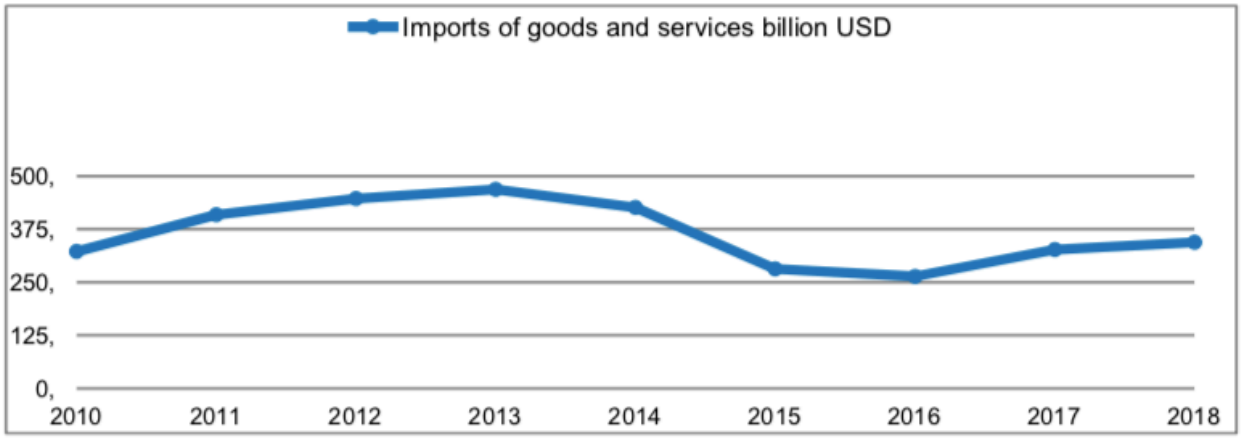

Figure 12: Imports of goods and services billion USD
Source: https://www.theglobaleconomy.com/download-data.php

Overall it can be concluded that the Russian market is uncertain in terms of demand conditions and thus should be entered using low control modes.

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[90] Hill, Hwang and Kim (1990), p.123.

[91] Hill, Hwang and Kim (1990), p.123-124.

5.2.4 Volatility of competition

Hill et al. suggested that rapidly changing macroeconomic and demographic situations in the host country, as well as the technological development, will lead to the firm choosing the low resource commitment of Licensing or Joint Venture[92].

To be able to assess the variables affecting volatility of competition, overall economic growth and demographics were taken into consideration. As the figures below show, the economic growth of Russia dropped heavily in 2015. But overall, it can be said that there is no unusual volatility which recommends entering the Russian market through a wholly owned subsidiary.

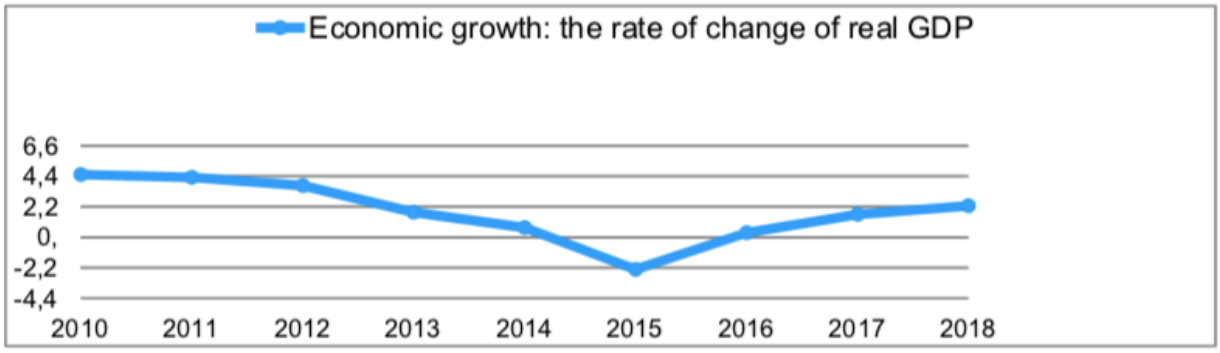

Figure 13: Economic growth: the rate of change or real GDP

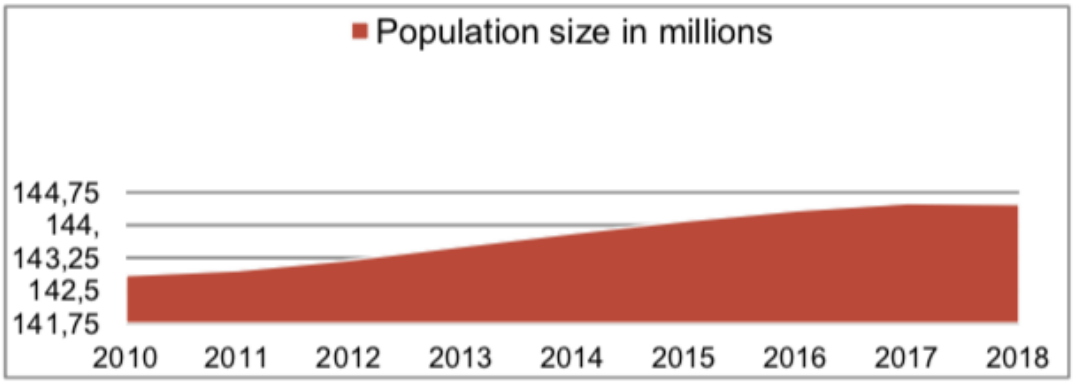

Figure14: Population size Russia: 2010-2018

Source:https://www.theglobaleconomy.com/download-data.php

92 Hill, Hwang and Kim (1990), p.124.

5.3 Transaction-specific variables

The main transaction variables are value of the firm-specific know-how and tacitness of its knowledge. Both variables will be discussed more in detail below.

5.3.1 Value of firm specific know-how

Hitt et al. suggested that if value of firm specific know-how is high, the safest way to entry the market is through a Wholly Owned Subsidiary[93].

For the construction chemicals industry, firm-specific know-how is an important topic. Many companies claim their product recipes to be unique. Yet, in reality, the Russian market is already experiencing the appearance of duplicates. R&D departments, laboratories that are involved in creating new recipes or in modernization of existing ones, treat their know-how very carefully. Dissemination risks can be reduced through the patenting of the technologies.

It's clear that for manufacturers of chemistry-based construction products protecting intellectual properties is one of the priorities. With high value of firm-specific know-how a high level of control is required to avoid or reduce knowledge dissemination risks. Thus, a firm is likely to enter the Russian market for producing construction chemicals through a Wholly Owned Subsidiary.

5.3.2 Tacit nature of know-how

As Hill et al. suggested, if the nature of tacit know-how is high, then a Wholly Owned Subsidiary is the safest way to enter the market.

Tacit knowledge - as stated in Section 3.1 - is the one that is difficult to share. For the construction chemicals industry this is highly important. Usually, know-how about the production technologies, products itself, application methods, tips and tricks, and knowledge about patented technologies is difficult to transfer. Very often the tacit know-how is embedded in employees' long experience. Especially manufacturers of premium-quality products prefer to have experienced technicians. In many cases, premium-quality implies creating products using tacit knowledge that competition companies do not have.

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[93] Hill, Hwang and Kim (1990), p.124-125

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Because construction chemicals producers possess a lot of tacit knowledge that is better to have control over, they should therefore enter new markets by establishing Wholly Owned Subsidiaries. If the firm chooses to enter through low control modes, then it must consider sharing the tacit knowledge effectively while minimizing the dissemination risks.

5.4 Assessing variables for the construction chemicals industry

Before assessing these variables for the construction chemicals industry of Russia, it must be mentioned that all variables were considered independent from each other. In this section, the market entry mode choices that are recommended based on the Eclectic Framework described in previous chapters are demonstrated.

For strategic variables:

- Extent of national variables was defined as high and thus Equity Joint Venture or Licensing are the recommended entry mode choices

- Because of the low level of extent of scale economies, lower control modes - Licensing or Equity Joint Venture - were recommended

- Due to high competition concentration, it is recommended to possess a high level of control as in Wholly Owned Subsidiary

For environmental variables:

- Data showed that the country risk in Russia is on a high level and low resource commitment is recommended which implies entering through Licensing or Equity Joint Venture

- Low location familiarity suggests committing to less resources and choosing Licensing or Equity Joint Venture

- Demand conditions in Russia are uncertain and Licensing or Equity Joint Venture are recommended here as well

- High volatility of competition is another reason to choose Licensing or Joint Venture over Wholly Owned Subsidiary

For transaction-specific variables:

- Dissemination risk is high due to the high value of firm-specific know-how, meaning Wholly Owned Subsidiary is the safest mode to choose
- Knowledge in the construction industry is mostly tacit and Wholly Owned Subsidiary would reduce dissemination risk as well.

Variable (Hill)	*Level*	*Construct*	*Recommended Entry Method*
Strategic Variables		**Level of Control**	
Extent of national differences (consumer preferences, competitive situation, legal differences)	High	Low	Licensing/JV
Extent of scale economies	Low	Low	Licensing/JV
Global concentration	High	High	WOS
Environmental Variables		**Resource Commitment**	
Country risk	High	Low	Licensing/JV
Location Familiarity	Low	Low	Licensing/JV
Demand Conditions	Low	Low	Licensing/JV
Volatility of competition	High	Low	Licensing/JV
Transaction Variables		**Dissemination Risk**	
Value of firm-specific know-how	High	High	WOS
Tacit nature of know-how	High	High	WOS

Figure 15: Weighting of Variables for construction chemicals industry in Russia

Source: own illustration based on Figure 14 and chapters 4 and 5

The assessment of variables is based on the research that has been done for this paper. As Figure 15 shows, the most commonly recommended market entry choice is Licensing and Equity Joint Venture. Yet, choices based on the practice and theoretical perspectives might differ in real life. Despite the theory suggesting that Licensing or Joint Venture are the most recommended entry modes, ARDEX took a different approach. ARDEX initially exported to Russia from Austria and after that established a Wholly Owned Sales subsidiary. More on ARDEX and its strategy of expanding into Russian market is described in the following sections.

All in all, it has to be considered that, depending on the industry, the choices might differ, some variables might be prioritized and some trade-offs might occur. Specifics and some tradeoffs can vary from industry to industry.

6. Case study - ARDEX Group

The weighting of the variables of the Eclectic Framework suggests that with the given conditions of the Russian construction chemicals market it is recommended to enter through low control modes like Equity Joint Venture or Licensing. Yet, in the construction industry this is rarely the case. As was mentioned before, trade-offs between variables and their relevance can occur. Despite a high level of global concentration of competition, significant gap in national differences, low level of scale economies, high country risk, low location familiarity, uncertain demand conditions and high volatility ARDEX still entered the Russian market through a high control mode - Wholly Owned Subsidiary. Thus, it can be concluded that for manufacturers of construction chemicals firm-specific know-how and tacitness of the know-how play a significant role. The next sections will focus on the ARDEX Group. It will be divided into three sections: an introduction to ARDEX, their market entry to Russia and a discussion. All the information was taken from ardex.com, ardex.at, ardex.ru unless stated differently.

6.1 About ARDEX Group

Founded in 1949 in Germany ARDEX still remains a family-owned business. Its headquarter is located in the German city of Witten. Nowadays ARDEX is one of the leaders in the field of chemistry- based construction materials. ARDEX is represented in more than 100 countries, on each continent except Africa. There are 55 ARDEX subsidiaries all over the world. The revenue of ARDEX Group in 2019 reached $830 million.

Since ARDEX is expanding actively and increasing its market share not only in the construction chemicals field but also in neighboring sectors, it acquired many companies to enlarge its product portfolio. Nowadays it's represented by 18 successfully operating brands including Loba, Gutjahr, Lugato, Henry, Dunlop, Pandomo, Wakol, Seire and several others. The rapidly growing ARDEX group invests almost every year in Mergers and Acquisitions. The guiding principle of ARDEX is "excellence in all that we do" (ardex.com).

«ARDEX Group products are tailored to the needs of their respective markets». Being a family-owned business, ARDEX encourages the development of team spirit, long-term growth and sustain-ability.

6.2 ARDEX Russia

Due to the internal division of ARDEX Group, ARDEX Austria is responsible for the development of the Russian market. ARDEX Austria's guiding principle is «to create the best connections».

ARDEX entered the Russian market 15 years ago. Since ARDEX is a B2B business oriented towards professional users, ARDEX products usually cannot be found on the shelves of construction stores. Usually ARDEX sells directly to big projects or through a network of distributors that ARDEX calls system partners. The Russian market was approached through B2B as well.

First, ARDEX was exporting directly to distributors and built a network of clients in Russia. According to Eclectic theory this is defined as a Non-equity mode through Exporting. ARDEX had a sales office in Russia since the very beginning where customers could get any support with regards to products and technical support as well. Brand loyalty, delivering high-quality products

and offering solutions to customers is important for ARDEX as a manufacturer of premium quality products in every country it enters. However, in 2017 ARDEX made a strategic move - it established an official sales subsidiary in Russia. A sales subsidiary corresponds to a Wholly Owned Subsidiary mentioned in Eclectic Framework. A sales subsidiary is not only a supporting activity, but an independent unit. Invoicing occurs in Russian Rubles, there is a warehouse where ARDEX stores its products. This provided additional flexibility in the market, increased delivery speed due to warehouse availability and quicker responses to the market needs. However, establishing a sales subsidiary implies high resource commitment according to Eclectic Framework (Figure 15). As stated in Section 5 of this paper manufacturers tend to be more investment intensive and their investments are in production plants, equipment, technologies, raw materials etc.. But ARDEX decided to go a different way. It established a sales subsidiary in Russia but did not decide for high resource commitment there. Instead, another planned strategic move was to start contract manufacturing. Contract manufacturing for ARDEX implies producing the basic products at the facilities of other manufacturers. ARDEX is very sensitive towards firm-specific know-how and tacit knowledge of employees. Thus, contract manufacturing is done safely to keep recipes and firm knowledge from dissemination. Based on this example, it can be concluded that firms might also mix different entry modes or switch from one to another.

Today ARDEX Russia has six employees – a general director, two technicians, a brand manager, a marketing director and an office manager. The team's overall strategy can be summed up in one sentence as following: «Positioning of ARDEX brand with selected product segments in accordance with market requirements for local production in the future».

This paper aims to answer the question ***how can the specifics of the construction chemicals market influence market entry decisions for Austrian manufacturers entering the Russian market on the case study of ARDEX Group*** and suggest an alternative market entry mode ARDEX could have chosen when entering the Russian market. For this purpose, the construction chemicals industry was analyzed by using Eclectic Framework (See Figure 4 and 15). As figure 15 showed, the most often recommended market entry modes are Licensing or Equity Joint Venture.

ARDEX Group entered the Russian market 15 years ago by exporting from Austria and after that established a Wholly Owned Sales Subsidiary. Yet, ARDEX chose to not invest a lot in resources and did not set up its own production facility yet but is on the way to doing so.

After assessing Russia's construction chemicals industry by applying Eclectic Framework, it is helpful to have at least a general overview of how ARDEX company is performing now on the Russian market. If using Eclectic Framework in this paper gives an example of how to apply theory to practice in any industry, ARDEX can analyze its current performance with Market Entry Theory to make some changes on the Russian market if necessary.

To understand how ARDEX is doing nowadays a SWOT-Analysis was conducted using data gathered from 25 phone interviews. The analysis provides a general overview of how ARDEX is performing now on the Russian market and can be used in combination with information from the chapter 5 to improve general performance in the future.

6.3 SWOT-Analysis for ARDEX Russia

To define the ARDEX performance in Russia nowadays, SWOT-Analysis was conducted based on the semi-structured phone interviews with existing and potential customers. To this end, 65 people were called and 25 answers gathered. Contacts were taken from the ARDEX CRM-system or from the internet. Questions for these phone interviews were aimed to help to define what customers value in construction chemicals segment, how far ARDEX established its Brand Awareness on the Russian market and what additional support ARDEX can provide to existing and potential new customers in Russia. Based on this information and current situation of ARDEX Russia, a SWOT-Matrix was created. It is important to mention that this SWOT-Matrix is based only on the information from 25 existing and potential customers that were reached out of 65 called. Phone interview duration was between 10 and 15 minutes. The interview results were qualitative and therefore assessed using a deductive approach (for exact questions with results see in Appendix 1).
SWOT-analysis was meant to show how the interviewed people see the ARDEX performance and which criteria/factors they consider to be important for a construction chemicals producer. The SWOT is limited to 25 responses only and some subjective opinions of the customers are not excluded. Based on the information that was gathered during interviews and an assessment of the ARDEX situation now, a SWOT-Matrix was created (See Appendix 1 and Figure 16).

Absolutely all of the customers who already knew ARDEX products were satisfied with its quality. However, general statement was usually the high price compared to other brands. Interviewed people suggested if producing ARDEX products in Russia keeping the same high quality will help

to be more precise in price proposition, they will gladly support it. Another statement concerned additional support with more videos in Russian where people can see how to use the products. Website with all information and technical data sheets (to download) was also one of the mentioned topics.

Some people mentioned quality of service provided as additional support. Faster delivery and stock availability are always welcomed. Some comments also concerned technicians that at the same time take care of selling process, discounts etc. Few customers mentioned that a clear structure within the organization would help them to speed up ordering process as well as getting technical support.

Almost all of the customers expressed the desire to visit Austrian production facility and share and gather international experience. Most of the people consider such an exchange to be an additional motivation. Since ARDEX is already practicing this for many years, this can be only expanded to more training- and seminar participants from Russia.

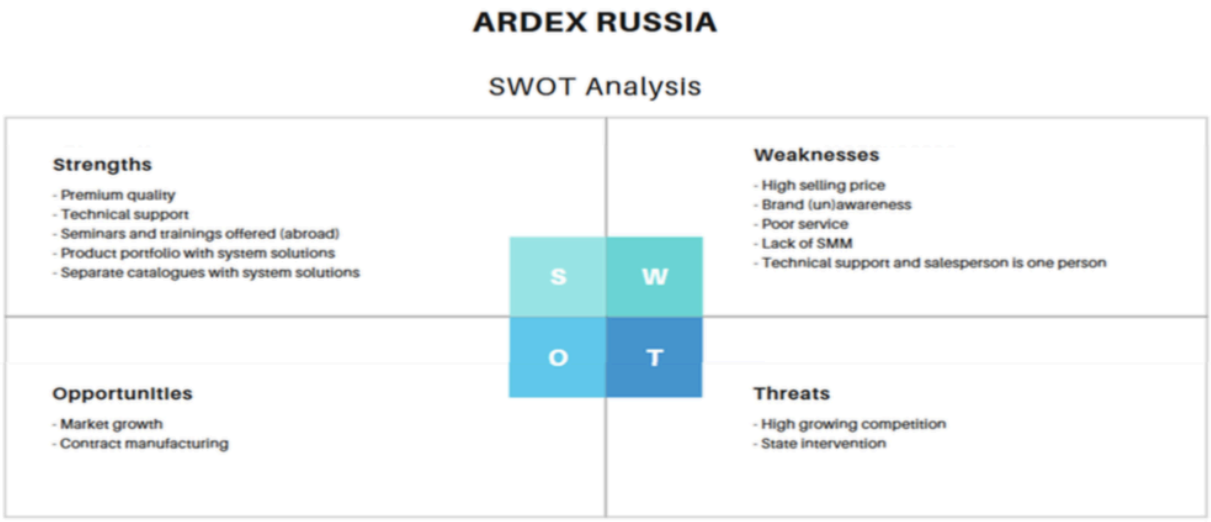


Figure 16: SWOT-Analysis for ARDEX Russia based on the semi-structured phone interviews
Source: own illustration based on phone interviews

6.4 Discussion

Since ARDEX has been operating on the Russian market for 15 years by now, it made no sense to give any recommendations about entry mode for the situation 15 years ago. This paper attempted to establish a connection between Russia's construction chemicals industry and existing theoretical approaches by looking at the industry through the lens of Eclectic Framework. This allowed for a recommendation of an alternative market entry mode. ARDEX can use this method and framework when entering other similar markets.

As can be concluded from above, ARDEX did not reach its full potential in Russia yet. From the theoretical perspectives, it was concluded that, depending on the specifics, some trade-offs happen when making decisions about entry mode choice. The history of ARDEX in Russia started with a low control mode choice - exporting directly to distributors. The next step was to establish their own sales subsidiary but still with low resource commitment. According to the Environmental variables of Eclectic Theory that refer to the level of resource commitment, when choosing to invest less in resources Licensing or Joint Venture should be chosen[94].

Yet, the reality doesn't always match the theory. In ARDEX's case Wholly Owned Subsidiary was chosen but with lower resource commitment. From today it can be said that higher resource commitment in a Wholly Owned Subsidiary would enable more flexibility earlier on and might have lead to acquiring a bigger market share.

All in all, it can be concluded from ARDEX's case that a manufacturing firm is not only making decisions about which level of control it wants to keep or grant to other parties. It is also directly impacted by the level of resource commitment it chooses in order to provide more flexibility, quickly respond to market changes and reduce the risk of dissemination of its knowledge.

7. Conclusion

In this paper theoretical perspectives of international market entry mode choice were discussed. The differences between choosing Licensing, Joint Venture, or Wholly Owned Subsidiaries were com-

[94] Hill, Hwang and Kim (1990).

pared and the applied to the construction chemicals industry in Russia. Moreover, the main theoretical perspectives which explain 90 % of entry mode choices - Transaction Cost Analysis, Resource-based View Institutional Theory and Eclectic Theory - were explained in detail. The latter, Eclectic Framework, was paid greater attention and broken down into Strategic, Environmental, and Transaction-specific variables that define the level of control, resource commitment and dissemination risk of the firm accordingly.

After describing each variable and relevant theories, Eclectic Framework was applied to the construction chemical industry in Russia to answer the research question: how can the specifics of the construction chemicals market influence market entry decisions for Austrian manufacturers entering the Russian market based on the case study of ARDEX Group?

It was confirmed that from industry to industry and within a given industry there are different specifics that influence entry mode choice in a significant way. According to Eclectic Framework that was used to assess construction chemicals industry, Licensing or Equity Joint Venture are the most often recommended market entry mode choices.

Moreover, the ARDEX Group case was taken to define how the theoretical perspectives described in this paper affect the real choices of managers. It was concluded that, according to the theory, ARDEX established Wholly Owned Sales Subsidiary to protect Firm-specific knowledge and reduce the Dissemination Risks for its tacit know-how. However, ARDEX chose a low resource commitment level for WOS. According to Eclectic Theory Low resource commitment levels are associated with lower control modes - Licensing or Equity Joint Venture. Thus, it can be concluded that ARDEX decided for some trade-offs of Transaction-specific variables but with lower resource commitment.

In light of the ARDEX Group case study and the theoretical perspectives discussed above, a few conclusions can be made. First, the specifics of the construction chemicals market industry in Russia directly affect market entry mode choice. Second, not only does it affect market entry mode choice, but also trade-offs that the company decides for when assessing strategic, environmental and transaction specific variables. Third, the resource commitment level a company decides for when entering the market or switching to another mode impacts the performance and market penetration later.

This study is not generalizable beyond the ARDEX Group case study. But using the example demonstrated in this paper of how to use the Eclectic Framework in practice, ARDEX can apply it to other international markets as well. There is lot of research done on Market Entry Theory. Future research will have to shed a light on other specifics that impact manufacturers and other industries when making strategic decisions.

8. Appendix 1

Interview questions and answers

Questions for these phone interviews were aimed to help to define what customers value in construction chemicals segment, how far ARDEX established its Brand Awareness on the Russian market and what additional support ARDEX can provide to existing and potential new customers in Russia. Contacts were taken from Customer Relationship System of ARDEX and from the internet. Based on this information and current situation of ARDEX Russia, a SWOT-Matrix was created. It is important to mention that this SWOT-Matrix is based only on the information from 22 existing and potential customers that were reached out of 65 called. Phone interview duration was between 10 and 15 minutes.

Have you ever heard about ARDEX? If yes, when was the first time you heard about ARDEX?	
In your opinion, who are the biggest market players on the Russian construction market?	
In your opinion, what criteria are important when choosing a distributor?	- Quality - Seminars and trainings - Individual service - Fast delivery - Price-quality - Technical support - Margin - Warranty - Product portfolio
How you usually find out about new products?	- Online adds - Through colleagues/ «people in the field» - Events - Distributor promotion - Seminars and trainings - Printed adds (catalogues etc.)

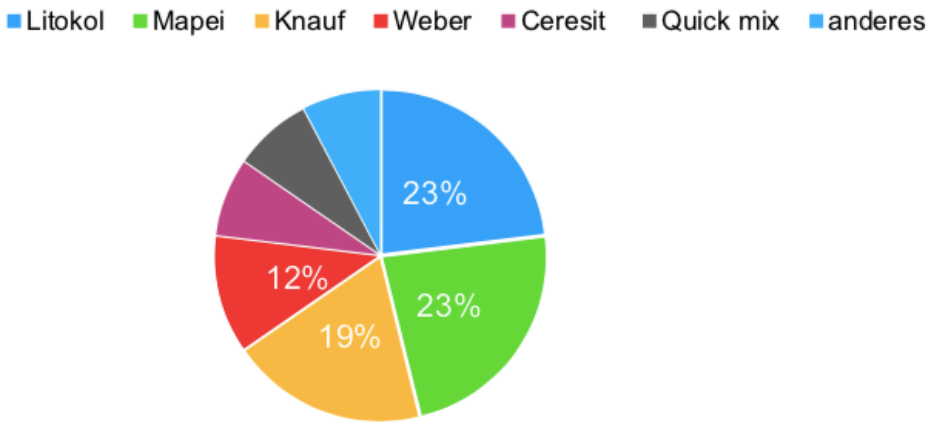
In your opinion, Is it important for an international company to have a production site in Russia?	- yes, it is important - Better to have one - It makes no difference to me - Not really - It is not important
How do you assess (scale 1 to 10) the quality of in Russia produces construction chemicals?	
What additional support you expect from ARDEX?	

Answers

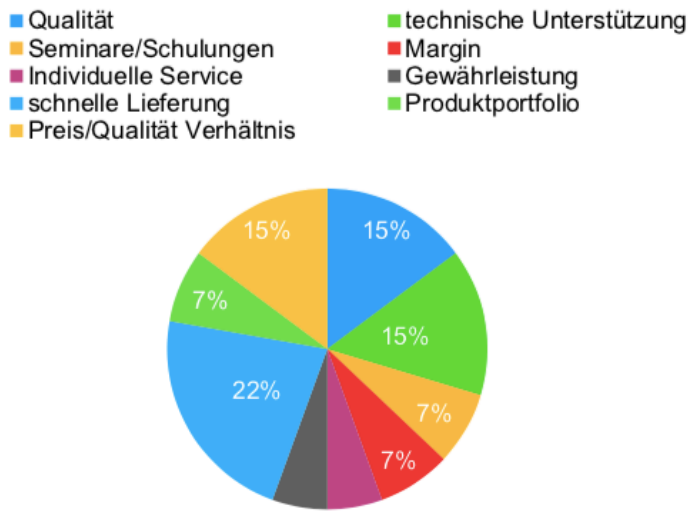
1. Have you ever heard about ARDEX? If yes, when was the first time you heard about ARDEX?

   Average answer - 3,2 years

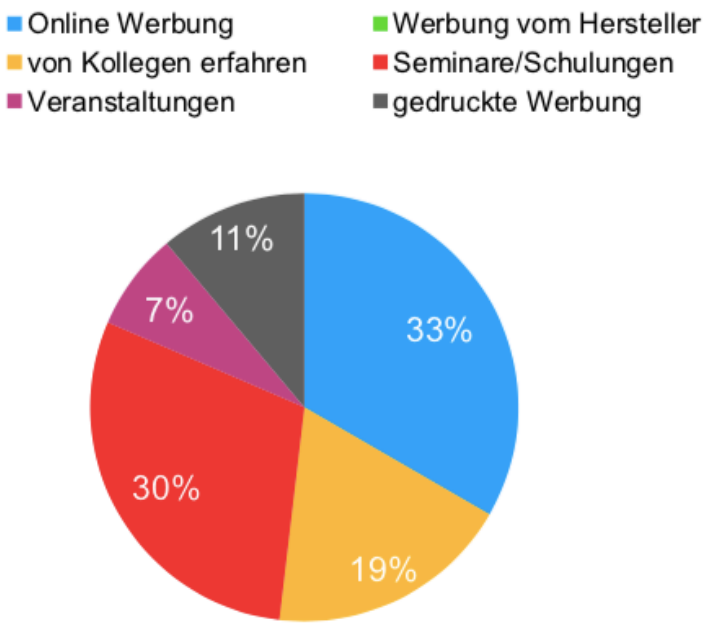
2. In your opinion, who are the biggest market players on the Russian construction market?



3. In your opinion, what criteria are important when choosing a distributor?



4. How you usually find out about new products?



5. In your opinion, is it important for an international company to have a production cite in Russia?

Yes, it is a must	Better to have one	It makes no difference to me	Not really	It is not important
22,7 %	22,7 %	0 %	36,3%	18,1%
5	5	0	8	4

6. How do you assess (scale 1 to 10) the quality of construction chemicals produced in Russia?

Scale 1 to 10	1	2	3	4	5	6	7	8	9	10
Number of answers	0	0	7	6	5	1	5	2	0	0

7. What additional support you expect from ARDEX?

Absolutely all of the customers who already knew ARDEX products were satisfied with its quality. However, general statement was usually the high price compared to other brands. Interviewed people suggested if producing ARDEX products in Russia keeping the same high quality will help to be more flexible in price, they will gladly support it.

Another statement concerned additional support with more videos in Russian where people can see how to use the products. Website with all information and technical data sheets (to download) was also one of the mentioned topics.

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Almost all of the customers expressed the desire to visit Austrian production facility and share and gather international experience. Most of the people consider such an exchange to be an additional

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