

#### **АННОТАЦИЯ**

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	построении стратегии по выходу на
	развивающиеся рынки, используя
	ресурсный подход. Для достижения
	поставленной цели были проведены
	экспертные интервью с представителями
	компания из Edtech индустрии, контент
	анализ и кейс-стади. В ходе исследования
	было выделено несколько факторов,
	влияющих на решение компании о выходе
	на развивающиеся рынки и выявлены
	ресурсы, которые предоставляют Edtech
Www.any.co.co.co.co.co.co.co.co.co.co.co.co.co.	компаниям конкурентное преимущество.
Ключевые слова	Edtech, ресурсный подход, конкурентное
	преимущество, развивающиеся рынки,
	стратегии выхода, интернационализация.

#### **ABSTRACT**

Master Student's Name	Poddubnyi Sergei Igorevich	
Master Thesis Title	Building a Strategy for the Entry of EdTech	
	Companies in Emerging Markets: A Resource-	
	Based View	
Faculty	Graduate School of Management	
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Academic Advisor's Name	Joan Freixanet Solervicens	
Description of the goal, tasks and main results	The aim of the work was to develop	
	recommendations for Edtech companies when	
	building a strategy for entering emerging	
	markets using a resource-based approach. To	
	achieve this goal, were conducted expert	
	interviews with representatives of the	
	companies from the Edtech industry, content	
	analysis and a case study. The study identified	
	several factors that influence a company's	
	decision to enter emerging markets and	
	revealed the resources that provide Edtech	
	companies with a competitive advantage.	
Keywords	Edtech, resource-based view, competitive	
	advantage, emerging market, developing	
	economy, entry modes, internationalization.	

## ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

Я, Поддубный Сергей Игоревич, студент второго курса магистратуры направления «Менеджмент», заявляю, что в моей магистерской диссертации на тему «Построение стратегии по выходу ЭдТех компаний в развивающиеся рынки: ресурсный подход» представленной в службу обеспечения программ магистратуры для последующей передачи в государственную аттестационную комиссию для публичной защиты, не содержится элементов плагиата. Все прямые заимствования из печатных и электронных источников, а также из защищенных ранее выпускных квалификационных работ, кандидатских и докторских диссертаций имеют соответствующие ссылки.

Мне известно содержание п. 9.7.1 Правил обучения по основным образовательным программам высшего и среднего профессионального образования в СПбГУ о том, что «ВКР выполняется индивидуально каждым студентом под руководством назначенного ему научного руководителя», и п. 51 Устава федерального государственного бюджетного образовательного учреждения высшего образования «Санкт-Петербургский государственный университет» о том, что «студент подлежит отчислению из Санкт-Петербургского университета за представление курсовой или выпускной квалификационной работы, выполненной другим лицом (лицами)».

26.05.2021

### STATEMENT ABOUT THE INDEPENDENT CHARACTER OF THE MASTER THESIS

I, Poddubnyi Sergei Igorevich, (second) year master student, Master in Management program, «Management», state that my master thesis on the topic «Building a Strategy for the Entry of EdTech Companies in Emerging Markets: A Resource-Based View», which is presented to the Master Office to be submitted to the Official Defense Committee for the public defense, does not contain any elements of plagiarism. All direct borrowings from printed and electronic sources, as well as from master theses, PhD and doctorate theses which were defended earlier, have appropriate references.

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26.05.2021

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#### **INTRODUCTION**

The technological development of the world of the 21st century affects every day more and more areas of society; the educational sphere is no exception. As an industry that cannot function without the Internet, the edtech market is attracting more and more new interested companies and organizations around the world, ready to enter and occupy this niche. According to the research agency Grand View Research, the edtech market is growing at an unrelenting pace and from 2020 to 2027, the average annual growth rate is expected to be about 18.1%. Thus, if in 2020 the volume of the world edtech market was 89.07 billion, then by 2027 this figure, according to the agency's forecasts, will reach 285.23 billion. (Grand View Research, 2020). On the other hand, considering the report of another agency, namely HolonIq, we can conclude that the development results of the edtech industry may be even higher than expected. HolonIq (HolonIq, 2021) predicts that the edtech market will grow at an unrelenting pace and will already reach \$ 404 billion by 2025 of total global spends, with an average annual growth rate of about 16, 3%. Expenditures on the edtech industry will amount to about 7.3 trillion dollars and will amount to more than 5.5% of the world education market.

The development of new technologies, the widespread use of the Internet and the addition of interactivity to all spheres of the functioning of the global society are further fueling interest in the edtech industry. Education is no longer geared towards the study of classical postulates and the application of various technologies in universities and schools. Thanks to edtech, people from all over the world can learn various sciences, skills, disciplines from the comfort of their homes. The ubiquitous digitalization of any content and activity provides edtech companies with great opportunities to operate and find new solutions for living in a changing world.

Modern edtech companies use various methods and resources to ensure their competitive advantage, operating on local and entering emerging markets. Countries that are emerging markets in the modern world represent suitable and promising conditions for the development and operation of high-tech educational companies.

However, why is digital education the best alternative to the modern? Edtech has a number of advantages that allow technology giants to be successful in today's market. One of these advantages is the reduction of time spent on education and the consumption of resources. Students do not need to attend lectures, and they can study wherever they want, without leaving home. Moreover, most modern courses and educational disciplines can be mastered for a low fee or free, in comparison with traditional teaching methods (Ra-Kurs). Another important advantage is the ease of learning; under such conditions, students are less susceptible to stress and with great

pleasure assimilate the information received, as some studies show (Alkhalaf, 2012). As well as another large number of various advantages, which the digital education brings to our lives.

However, despite the globally positive picture of the development of the edtech industry, there are countries and regions where this industry is developing unevenly and with varying success. While North America is the leader in the educational technology market, and Western Europe, Latin America, China and India are growing rapidly with an ambition to become industry leaders, a large number of developing countries are lagging behind these regions in many ways, despite their rapid growth as well developed countries (Lynch, 2018). Considering Eastern Europe and Africa in particular, one can immediately see a picture of lagging behind developed countries not only in terms of economic development, but also in the edtech industry. In the African region, not all children and adults have access, not only access to the Internet and education, but to clean drinking water, this picture is obvious. In many African countries, there are no policies at all aimed at digitalizing education and supporting the edtech industry. However, despite this fact, Africa is the country with the fastest growing use of mobile phones, which are among the main attributes and carriers of the edtech content industry (Rollmann, 2018).

Considering all of the above, understanding how the educational technology industry is developing, why it is evolving unevenly in different countries, and how companies from developed countries can help the progress of this industry in developing countries is important in obtaining an overall vision of the global digitalization and reinvention of classical education. The relevance of this study is due to its versatility and modernity. A resource-based view framework reinforces the interest in technology educational companies. Further, it is necessary to develop a wider range of resources that technology companies can use to build their strategies, especially to enter emerging markets. As the sphere of our life is becoming more and more distant from the traditional way of life, we need to look more broadly at the development of companies from the point of view of a strategic approach, and understand how RBV can complement and improve companies' strategy.

Therefore, the **research question** in this work is the following wording:

What resources and competencies are crucial for educational technology companies to enter emerging markets?

The **object of the study** is edtech companies, and the **research subject** is resources of edtech companies.

The **aim of the study** is to develop recommendations for companies in the educational industry when building a strategy for entering emerging markets.

To achieve this goal, the following tasks were set:

- identifying the resources of companies that are key in building a strategy for entering emerging markets;
  - revealing the resources of companies that provide them with a competitive advantage;
- conducting a comparative analysis of edtech companies from developed and developing countries:
- determining the relations between the resources available to the company in the home market, with the resources that the company needs in the new (developing) market;
- discovering the most popular entry modes for companies to enter countries with an emerging economy.

The **main research method** was a multiple case study, primary data collection method is structured expert interview conducted in the form of an online survey and delivered through corporate communication channels of edtech companies. This method was taken because of its ease of use and minimization of the complexity in obtaining a representative sample and a wide coverage of respondents. The secondary data collection method is content analysis, and the auxiliary descriptive method is comparative analysis.

The **type of study** is qualitative and exploratory, as the research question is currently not well studied and presents an opportunity to introduce novelty.

Nowadays, many edtech companies, from small to large, use a variety of tools and resources to help them penetrate the global arena and achieve positive results. However, how do these companies conquer the market, due to which small organizations, start-ups become global and successful? What gives them the opportunity to penetrate foreign markets and conduct their activities there? Of course, price competition will not be enough, some other competencies and resources are needed, perhaps unique, which are inimitable, difficult to create and imitate. What resources and competencies should be used to achieve a competitive advantage in the framework of strategic development? After all, a large number of companies enter the market and fail, others become leaders, and the edtech industry continues to grow rapidly.

There is little research on the tools and resources than help edtech companies to penetrate the global arena and achieve positive results. This is a real **research gap** that is planned to be filled in this study. If this gap did not exist, then edtech companies would understand how to compete in the market. Most edtech companies are almost the same type and do not have an understanding of how to use the necessary resources to gain a competitive advantage and become unique. The situation is similar with the gaming industry, where a large number of companies are developing in similar directions and offering similar products. A very small number of companies are known in local markets, not to mention global ones. For example, if we consider the Russian market, then from the language courses we can single out English First and Skyeng. However, this does not

mean that there are no other companies involved in teaching English. In St. Petersburg alone, there are dozens of them, in all of Russia, there are thousands of them, but they can be said to have drowned in the gray mass of companies like them, going through a stagnation period. This can lead either to the collapse of the company, or, if company finds its unique resource and offers it on the market in the form of the same unique offer, they with a greater possibility could achieve success.

#### **CHAPTER 1. EDTECH INDUSTRY**

#### 1.1 Edtech industry in developed and emerging markets

Before dwelling on the edtech industry in developed and developing countries, it is necessary to distinguish between these two types of markets and describe their main differences and features. A developed market can be considered a country that is the most developed in terms of the economy and financial markets. In this country, the markets are highly supervised and carefully regulated, there is a working exchange and good liquidity in the debt and equity markets (IG, 2020). Another important term worth mentioning is an emerging market. How can we evaluate the development of a particular state in order to rank it as a developing market? Answering this question, we can give a definition that says that any economy with the features of a developed market, but not fully meeting its standards, can be called a developing economy, or a developing market (MSCI, 2014). The main emerging markets are the BRIC countries, as well as Mexico, Turkey and Indonesia, South Korea, Saudi Arabia. The leaders are China and India (Jain, 2006).

In general, developed countries have a stronger economy, which is obvious; in addition, these countries have a more developed infrastructure, a higher standard of living, and mature capital markets. In developing countries, these characteristics are lagging behind in development, but these countries still stand in the way of improvement and global communication. They have less developed capital markets and household income, but they are characterized by rapid growth (China and India in the edtech industry, for example). Moreover, these countries are most often characterized by frequent political and economic instability, as well as a large population (Jackson, 2019).

Although there is no standard accepted classification, we will focus on the classification of developed and emerging markets proposed by the FTSE Russell agency (FTSE Russell, 2021), which is the world's recognized reviewer of indices and analytical data. The table below, proposed by the agency, shows the most relevant information about which development trajectories countries are currently in. Countries are highlighted in green from which companies participated in this study. We are considering this particular classification, since it affects the area of investment, which is very important for the edtech industry. Countries in this classification are divided into 4 categories: developed, advanced developing, secondary developing, and frontier, that is, those who have recently entered the category of developing countries.

Developed	<b>Advanced Emerging</b>	Secondary Emerging	Frontier
Australia	Argentina	Chile	Bahrain
Austria	<mark>Brazil</mark>	China	Bangladesh
<b>Belgium</b>	Czech Republic	Colombia	Botswana
Luxemburg	Greece	<b>Egypt</b>	Bulgaria
<b>Canada</b>	Hungary	India	Côte d'Ivoire
<b>Denmark</b>	Malaysia	Indonesia	Croatia
Finland	Mexico	Kuwait	Cyprus
France	South Africa	Pakistan	<b>Estonia</b>
Germany	Taiwan	Philippines	Ghana
Hong Kong	Thailand	Qatar	<b>Iceland</b>
<u>Ireland</u>	<mark>Turkey</mark>	Romania	Jordan
<mark>Israel</mark>		Russia	Kazakhstan
Italy		Saudi Arabia	Kenya
Japan		UAE	Latvia
The Netherlands			Lithuania
New Zealand			Malta
Norway			Mauritius
Poland			Morocco
<b>Portugal</b>			Nigeria
Singapore			Oman
South Korea			Palestine
Spain			Peru
Sweden			Republic of North
Switzerland			Macedonia
UK			Serbia
<b>USA</b>			Slovak Republic
			Slovenia
			Sri Lanka
			Tanzania
			Tunisia
			Vietnam

Figure 1. FTSE Countries Classification

Having considered the main characteristics of developed and emerging markets and their classification, let us turn our attention to the edtech industry in these countries. As the CITI report shows (CITIgroup, 2019), the edtech industry is growing better and faster in developing countries; developing countries are ready to invest more in this industry, showing high growth. Because in developing countries the population is usually larger than in developed countries, in general, more people are connected to the Internet, and as you know, not almost all edtech companies see the possibility of successful operation without a global network. Developing countries show digital excellence by comprehensively including education processes. Moreover, the government can limit the activities of these companies with less force.

In particular, the countries of the Asian region - China and India - show particular success. This region accounted for about 80% of the increase in university enrollment by 2020 (Vedrenne-Cloquet, 2020). Online education programs can work as a supplement to basic education. A survey conducted by the agency shows that 94% of respondents rate educational applications positively, and 81% were willing to even pay for them. Moreover, only 15% of respondents from different countries noted the fact that educational applications and platforms are not effective or useful. It is also worth noting here that respondents from developed countries were less optimistic about the edtech industry and its products than those from developing countries. Asia will continue to gain momentum, becoming the most popular region in the world, it will be accompanied by the countries of Latin America and Africa.

The picture below illustrates the change in the edtech industry from 2019 to 2025 divided by sectors, and its growth.

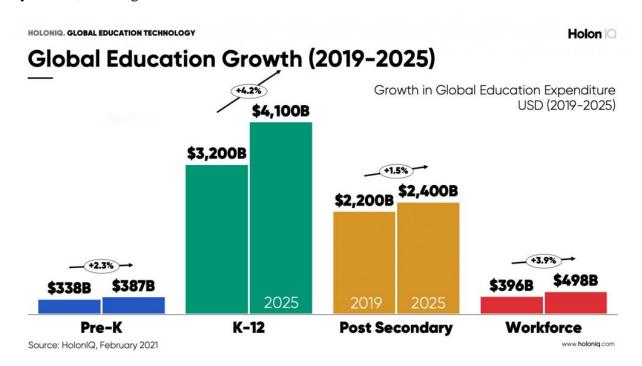
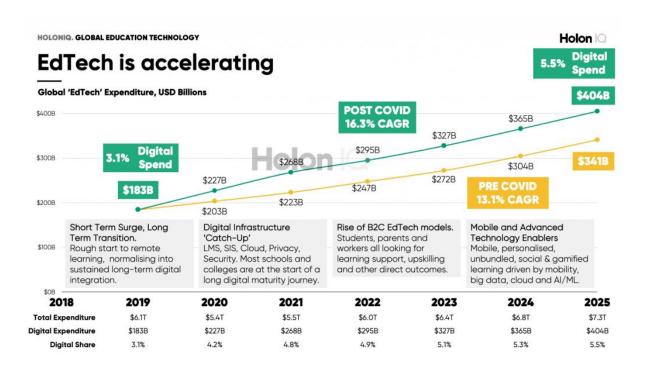


Figure 2. Global Education Growth

As we can see, primary and secondary school education (K-12) plays a special role in the edtech industry. The main investments are directed to this sector and it is this sector that shows the best results. Another important sector is already university education, because as you can see from the picture, this sector is in second place in terms of growth, although it shows less growth from 2019 to 2025 in percentage terms compared to other sectors. The third sector that also requires our attention is preschool education, kindergarten education; the fourth is corporate training and in-house training. These sectors perform the least poorly compared to other industries, but they are also growing and becoming popular.



**Figure 3.** Edtech is accelerating

In addition to the main activity of edtech companies in the field of training and education, the B2C model trend is also gaining popularity. The industry is becoming focused not only on education, but also to support parents, employees and comprehensive training of various segments of consumers of edtech goods and services. The industry begins to provide careers, academic pursuits, and support. Continuing the study of this model, new ways of acquiring knowledge, advanced training, development, mentoring, career development and many others are considered. New products and services are becoming more digitalized, interactive, and various opportunities for remote and teamwork are being added. The methods of personification and gamification are also gaining momentum, strengthening and developing the industry.

Another area that is no less popular in edtech is the B2B segment, which includes various MOOC courses, the use of robotics in the workplace and in learning processes, the use and implementation of artificial intelligence in educational and work processes, the digitalization of financial instruments, planning tools and certification.

Third segment is service edtech services and products, which include various digital and remote internships, educational camps, preparatory platforms.

Finally, the edtech industry also pays special attention to hardware and software. This segment includes various creation of educational platforms, trade and tutoring networks, social and educational products and tools, development of cloud structures, VR, XR and modeling.

#### 1.2 Types of the resources companies have

In every company, not only in the edtech industry, there is a certain amount of resources necessary for the successful operation of the company. Typically, these resources are divided into 5 main categories. Financial resources, physical resources, human resources, intellectual and technological (GaryFox, 2021).

Financial resources are some of the most valuable resources of a company, especially in the early stages. They usually consist in the definition of "money" or "investment". Financial resources are categorized into different categories within and outside the organization. This can be finances for marketing activities, for renting premises or building your own office. Financial and network resources include spending on the provision and maintenance of the company's website, platforms and other digital tools. Financial and human resources include employee salaries, taxes and employee insurance costs. The company can also insure itself against probable risks, which is also noted as a financial resource. Financial resources can also spill over into various accounting and accounting activities, especially when outsourced. In addition, companies can spend financial resources on raw materials, manufacturing, corporate training, logistics, etc.

For edtech companies, especially startups, financial resources are an important part of their existence and success in the market.

The next important resources for companies are physical resources. This group includes various types of inventory and infrastructure, company buildings, i.e. physical facilities, production centers: factories and plants; this also includes points of supply, sales, if the company is vertically integrated.

The third category is intellectual resources. They include the company's brands, intellectual property, various proprietary developments, partnerships, patents, copyrights, knowledge, experience, etc. For edtech companies, these resources can be useful when entering emerging markets, because the knowledge and experience of a new market can help these companies build a successful strategy. These resources are intangible.

Another group is human resources that are especially important for any company, because without this type of resources, the company will absolutely not be able to exist. This group includes any company personnel, internal corporate ethics and policies, corporate culture, project teams, relationships within the team, relationships with suppliers and customers. Even after robotic automation is widely deployed, people will still play a critical role in companies.

The last and most relevant group of resources for the edtech industry is technological. This group includes various platforms, company algorithms, software, technologies, company developments, their own networks, artificial intelligence, robotics and others. Since the majority

of edtech companies operate on the Internet, various technologies are considered one of the key resources for edtech companies. These resources in the companies of the edtech industry are created at the expense of financial, physical and human resources.

To provide a competitive advantage and assess resources, it is proposed to use the Wernerfelt VRIN model (Wernerfelt, 1984), which shows the potential usefulness of a particular resource in the company. According to Wernerfelt, resources must be valuable and relevant to the competitive advantage that is being created. In addition, the resource should be rare if viewed from the point of view of the market. It should not be found in most competitors, because if the resource is publicly available, it does not add weight to the company's competitive advantage.

Moreover, the resource must be non-reproducible, that is, such that competitors have difficulties in reproducing it in their company. The type of such resource can be various marketing campaigns and relationships with suppliers and partners. Finally, the resource must be irreplaceable, that is, unique for a particular organization. These resources include various knowledge, experience and status, company image.

#### 1.3 Internationalization and entry modes

Analyzing the main modes of entry into foreign emerging markets, it is worth mentioning the concept of internationalization, and understand on what basis certain companies choose the way to enter. The theory of internationalization of companies was first specifically proposed by Johanson and Weidersheim-Paul (Johanson, 1975), conceptualized by Buckley and Casson (Buckley P.J., 1976), and further developed by Johanson and Vahlne (Vahlne, The Internationalization Process of the Firm-A Model of Knowledge Development and Increasing Foreign Market Commitments, 1977). This theory provides an understanding of how and why companies choose this or that mode of entering the market, its further expansion and operation in a new market.

There are several models of internationalization, such as the Uppsala model (Vahlne, The Internationalization Process of the Firm-A Model of Knowledge Development and Increasing Foreign Market Commitments, 1977), the product life cycle theory and "born global". Despite the popularity of the Uppsala model of internationalization, it has limitations and is not suitable for explaining the choice of a way to enter the foreign market for edtech companies. Most of these companies operate online, thanks to the Internet and bypass the barriers to internationalization through the network space. On the other hand, the model implies experience and training in a foreign market, which is especially important for edtech companies (B.A.Башуткин, 2014). Considering the product lifecycle theory, we can say that it is also inappropriate for explaining the

internationalization of most edtech companies. The theory is more suitable for companies that focus on physical, exported and imported products. However, this model can be useful in the study of emerging markets, as it explains the transition of a product from a developed country to a developing country at the stage of standardization (Raymond, 1966).

Another model of internationalization, namely "born global" (Rennie, 1993), most accurately describes and fits in the case of the edtech industry. This model considers small or small businesses that plan to meet the needs of their customers globally. This model is suitable for edtech companies, as most of them operate through the Internet and online, providing non-physical products and services to their customers. Even if the company did not open its representative offices and branches abroad, and not on the local market, it is very likely that their clients are already not only the local community, but also people from other countries. The model also describes many of the companies discussed in this paper, which can be called "global startups" and "international startups" (Oviatt, 1995). Modern global companies from other industries cannot refer to the concept of "born global", since they became global within a certain period of time, and their initial goal was to meet the needs and requirements of consumers in the local market.

Confirming the fact that most edtech companies can be considered "born global" are several characteristics of these companies. Firstly, such companies are distinguished by increased activity in international markets from the very beginning of their activities or within a short period after their foundation. Second, as the study, which will be described in detail below, shows, these companies are limited in financial and material resources, especially when compared with global corporations (Taney, 2012). Third, these companies are pursuing a differentiation strategy (Cavusgil, 2009). For example, if at first glance two edtech companies produce goods and services based on their own system and software, their own platform, algorithm and artificial intelligence. From the very beginning of their activity, they are not tuned in to imitate the resources of competitors; their goal is to create their own. Another factor showing the belonging of many edtech companies to the notion of "born global" is the use of information and computer technologies (Cavusgil, 2009), without which the activities of not a single company in the edtech industry can do. Otherwise, this company would not be considered part of this industry and would position itself somewhat differently. In addition, the last factor is that such companies in foreign markets are looking for intermediaries, partners, representatives who have experience in operating in this new market and have all the necessary knowledge to allow the newly made edtech startup to gain a competitive advantage (Taney, 2012).

Considering the ways of entering the foreign market, we must first understand what the concept of "entry mode" means. Root explains entry mode as an institutional arrangement that makes it possible for a firm's products, technology, human skills, management, or other resources

to flow overseas (Root, 1983). Anderson and Gatignon refer to the entry mode as the governance structure that allows a firm to exercise control over its foreign operations (Anderson, 1986).

Entering a new market is a strategic decision for a company with implications for the management of the company's resources, marketing activities and competitive advantage (Prahalad, 1998). That is, entering a new market implies the location of production / marketing activities and their ownership (full or partial).

There are many strategies for entering emerging markets, let us dwell on some of them that TradeStart offers (TradeStart). However, it must be understood that there is no specific entry strategy that will work in all international markets, in particular for the edtech industry. This study will examine the following entry models: direct / indirect export, licensing, franchising, partnering, joint venture, wholly owned foreign enterprise (WOFE), Greenfield investment, representative office, piggybacking and turnkey project.

Direct export is considered to be selling directly to the selected market using the resources of the company. Companies can also select local distributors and agents who know the market and are willing to represent the company and their products in that market. In turn, indirect export is the sale of goods to some intermediaries in a new market, and they, in turn, will sell these goods in this market to local consumers.

Licensing means transferring the right to use your products and services to other companies in a new market. This strategy is appropriate when the buyer of the license is a company with a significant market share that the company is entering. Licensing can support both production and marketing activities of a company in a new market.

Franchising is another model for rapid expansion and capture of a new market. This strategy assumes the use of the same business model in different markets, and will be appropriate when such a business model is applicable to most of the company's potential markets. Of course, in this case, the business model must be unique and the brand of the company is recognizable.

Another popular strategy in the modern world is partnership, when companies begin to mutually engage in marketing, production and other activities with a company from a new market. This strategy is suitable for companies that have little knowledge of the new market; they do not have the experience in this market and the knowledge that is necessary to ensure a competitive advantage. Also in this situation, there are cases when the culture and mentality of new market buyers are strikingly different from the company's home market.

Another strategy similar to a partnership is called a joint venture. However, speaking of partnership, there is no question of creating a third-party company by two partners. In the case of a joint venture, a new company is created, which will operate in the new market through the efforts

of the two companies that created it. In this case, all risks and profits between the companies are divided equally or in an agreed ratio.

Wholly Owned Foreign Enterprise is an excellent investment vehicle. This company is registered in most cases as a limited liability company in the new market, and is owned by a foreign owner. In 2020, this type of enterprise was abolished and replaced by a "foreign-funded enterprise" (13th National People's Congress, 2019), but its essence remained the same. This type of organization is typical for the Chinese region.

Greenfield investment is another investment strategy for entering a new market. This model implies the constant conduct of business in a new market after the purchase of land, the construction of facilities and the launch of production. This is a very risky model, because companies usually take on all the risks of a new external environment.

A representative office is set up in a new country / market to carry out various types of marketing activities and other operations. This model is used in cases where the creation of a branch or subsidiary is not possible in a new market. Typically, these structures are not used for sales and profit, and are easier to establish in a new market.

The next unique way to enter a new market is piggybacking. Let us say there are companies that operate on the local market, in which, say, "our" company operates. The company sells services or products to them. However, in turn, these companies also placed their activities overseas, and the piggybacking model implies an agreement with these companies to include the products and services of "our" company in their lineup abroad. This strategy significantly reduces the likely risks and costs of the company in the international market, as the company formally continues to sell its products and services locally.

The final, but no less significant, way to enter a new market in our study is a turnkey project. Such projects are created from scratch in a new market, and customers are either large organizations or the government. The industry in which such projects are especially popular is consulting.

Having considered the main models or strategies for entering new markets, it is necessary to dwell on the factors that can provide a competitive advantage for companies when entering new markets. In our case, these are the resources of companies that are planning their expansion abroad.

From the point of view of a resource-based approach, the creation of a sustainable competitive advantage and the use of an existing advantage for entry is a fundamental component of this approach (Erramilli, 2015). As Peng notes (Peng, 2001), the resource-based view is able to explain the choice of entry mode not only based on existing resources, but also based on the development of new and potential resources and benefits. Since our research relies heavily on emerging markets, RBV is one of the few theories that can be useful in this research; this is even

noted by some researchers, considering the resource-based view to be one of the most informative theories explaining the use of resources when entering emerging markets (Hoskisson, 2000). The company's resources and products are codependent on each other (Wernerfelt, 1984), which once again proves the fact that this perspective is important for explaining the ways to enter a foreign market. It is more profitable for companies to use the resources they already have when entering a new market than to create something from scratch. Therefore, efficient and effective work with resources and their placement in a new country / market is one of the main factors for the success of companies, not only the edtech industry. Moreover, the value of a resource is determined by how it affects the development of a company's competitive advantage and its sustainability (Madhok, 1997).

It is important that the company uses resources in the new market not only for one type of activity, but directs resources both in production activities and, for example, in marketing. Thus, it will be easier for the company to reach an agreement with local partners and build a large client base.

However, when entering a new country from the point of view of the resource approach, the company may face a number of difficulties. The first factor in the failure of the internationalization campaign is government measures to protect local producers (Rolfe, 1993), as many industries in China are now doing. The government can regulate various trade, economic, political and social processes of the state, thereby setting extremely high barriers to the entry of foreign companies, or even prohibiting foreign competitors in its local market.

Another factor is just the poor position of the company's resources, which cannot be accepted or redirected to a new market, and can only exist in the local market (for example, qualified employees who are familiar with the company's special corporate culture). If the company tries in any case to move these resources to a potential new market, the company may face a failure, since these resources may simply not "take root" in the new area and will not be able to create the necessary competitive advantage (Erramilli, 2015).

Of course, a company needs to have different human, technological, financial, physical and intellectual resources in order to be successful in a new market; either they must find these resources in a new market, at the expense of their own forces, or at the expense of the forces of partners.

# CHAPTER 2. RESEARCH OF EDTECH COMPANIES FROM DEVELOPED AND DEVELOPING COUNTRIES THROUGH THE PRISM OF RESOURCE-BASED VIEW

#### 2.1 Resource-based view as base of the theoretical framework

To substantiate the relevance of the choice of a resource framework, it is necessary to consider some other theories that might be suitable for the successful fulfilment of the research goal. In explaining the competitive advantage of a company and in the intercompany comparison, several theories have emerged that may explain this. These theories include the resource approach, the market approach, the theory of dynamic possibilities, and the theory of competencies. Let us consider the first three theories as the most suitable for our research.

In order to understand the general concept of the proposed study, it is necessary to dwell on some concepts and their components. First, it is important to determine what the RBV approach means. Since one of the questions of strategic management is to understand, why some firms are superior to others, focusing on the resource approach can explain this phenomenon and answer the question. The RBV approach was created to explain the most important differences between companies in productivity and in strategic planning (Barney, 2001).

Moreover, in order to assess the extent to which an organization may be able to maintain a competitive advantage, the RBV offers to evaluate the resources of companies, taking them as a unit of analysis (Lockett, 2009). This is supposed to be used to analyse companies in the upcoming study.

The main research base will be the RBV, as one of the fundamental base affecting the competitive advantage of companies (Barney, 1991). The study intends to focus not only on the internal resources of educational companies, but also on external resources, that emerging markets offer; and which can enhance the competitive advantage of companies. In addition, as a theoretical basis and base for further research, it is supposed to use VRIN criteria (Prahalad, 1990), and determine the compliance of edtech companies with this criteria.

In addition to the theoretical concepts already mentioned, particular importance will also need to be given to strategic management, internationalization and resource-based sustainable development; as well as apply this to technology education companies. In relation to resource-based strategic management, mention should be made of a means of assessing potential factors that provide companies with competitive advantages (Fahy, 1999).

Moreover, it is worth paying attention to internationalization, and the possibility of operating companies in foreign emerging markets. In this case, theories of internationalization can help in describing the detailed picture of the functioning of companies in foreign markets, and will help to identify the main competitive advantages that companies can use. Among the theories to consider in the study are the "Technology gap theory of trade", which reveals the advantage of companies and their innovativeness in other countries (Posner, 1961); "Uppsala model" explaining the activation of companies in foreign markets (Vahlne, 1990); "Internalization theory" (Rugman, 1981) and "Non-availability approach" by Irving B. Kravis (Gandolfo, 1998). Of course, not all theories can be involved in research, but some points may be useful for comprehensive analysis.

If the resource-based approach can provide a fairly complete picture of the organization's activities and how that organization achieves a competitive advantage, then the market approach is more difficult. Considering Porter's five forces as part of the market theory (Porter, 1985), the question arises of how edtech companies will be able to analyse the strength of suppliers, because in fact they do not have suppliers. Due to the fact that most edtech companies are start-ups, they use their resources and capabilities to create and distribute their products. Suppliers can be, of course, specially hired people who provide educational materials or content for platforms and applications, as the main products of edtech companies. However, the analysis of Porter's five forces will still have to be adapted and modified for the edtech industry.

In addition, from the point of view of market theory, the external environment and the structure of the industry and market in which the organization operates determine the competitiveness of an organization. However, speaking about the edtech industry, we are dealing with a global market, where a large number of players, markets, trends and processes appear. Therefore, it will be especially difficult to understand how to identify a competitive advantage from the global market.

From the point of view of the resource approach, considering the resources of edtech companies, they can be similar, since most companies are start-ups with similar products, and the markets differ to a greater extent than the products themselves. The products of the companies differ only in their adaptation to certain markets and mentality of people, their socio-demographic characteristics and the interactivity of the products.

While resources are often homogeneous and relatively mobile, the market plays an important role. In addition, in the edtech industry, it can be more difficult to understand the market in which the company has to work, because it is international or global, than to transfer resources. In the edtech industry, resources can be located in one place, a company can operate all over the world, and here we are already talking not about the mobility of resources, but their adaptation to various markets and their changes.

Considering the theory of dynamic opportunities, it is worth noting that this theory is in many ways similar to the resource approach, however, if the resource approach focuses on providing competitive advantage based on the resources of the organization, the theory of dynamic opportunities focuses on competitive survival in constantly changing markets. The theory seeks to understand how companies can adapt to changing market conditions while retaining and maintaining their competitive edge (Ludwig & Pemberton, 2011). This theory can become a continuation of the resource view, if in the future, this study is continued and developed from the point of view of resource adaptation and dynamic construction of strategies, but it cannot replace it and become fundamental.

Despite the fact that some critics consider this theory unfinished and vague (Wang, 2007), the theory can be an excellent addition to the resource theory, and in other studies, replace it, becoming a full-fledged framework. To continue this research, the usefulness of this theory is expressed in the study by Amy Shuen (Shuen, 2008), which looked at technology companies and their resources, such as know-how, social, mobile networks, platforms, the digital economy (Shapiro & Varian, 1998), in order to identify the firm's ability to quickly coordinate and reconfigure competencies and capabilities of the company.

#### 2.2 Research design

The research base of the study is the multiple case study, where the units of analysis are edtech companies. This research method is most convenient and relevant for a holistic description of the characteristics of companies and the proposal of recommendations. Based on the case study, according to certain criteria, a generalized description of companies, their resources and main problems will be given, for the solution of which recommendations will be allocated according to certain blocks. Primary data will be collected through structured expert interviews, and secondary data through content analysis. The content analysis will examine company websites, products and services that edtech companies provide, various reports and company documentation, as well as their relationship with customer segments. An additional analysis tool is a comparative analysis of edtech companies from developed and emerging markets. This research method will provide even more complete information about companies and their resources, as well as highlight the main similarities and differences among companies from two types of markets.

The expert interview method is the most practical and suitable method for collecting the required amount of data and their representativeness. The experts in this case were representatives of edtech companies from a total of 18 developed countries and countries with emerging economies. The total number of companies that became respondents to my research was 26. In

total, contact was made with 403 companies, however, as the real result shows, not all agreed to participate in this study, or ignored the request for participation. The expert interview was carried out in the form of a survey on google platforms, as the most convenient way to obtain data from companies around the world. The channels of communication with edtech companies were corporate emails, social media, feedback forms on company websites and phone numbers. The most successful channels were corporate emails and feedback forms, as they received the largest number of survey responses.

The main problems that arose during the research are the preparation of a survey, its formulation based on the research tasks, object and subject of research. In addition, finding companies and ensuring that the data are representative has also become a major challenge. To find companies from the edtech industry, the following informative-statistical databases were selected: Tracxn, Edsurge, Commonsense, Golden and several other sources, which were articles with a list of companies from the edtech industry. Another problem was the loss of such rapidly emerging markets in the edtech industry as China and India. In the first case, google platforms do not work in China, and even those companies that were contacted through the contact number did not speak English, which made it difficult to contact. Speaking of India, more than 50 Indian companies have been asked for research assistance through various channels, and to a great surprise none of these companies responded.

Overall, the questionnaire consisted of 22 open-ended, multiple choice, and single choice questions (see Appendix 1). All questions were prepared in English. The survey was also split into several blocks in order to segment the companies. The questions that were included in the questionnaire were mainly related to the company's resources and the experience of entering foreign developed and emerging markets. The companies were segmented according to two criteria: with previous experience of entering emerging markets; and no experience. This was done for the purpose of further comparative analysis and obtaining additional research results.

#### 2.3 Analysis of expert interviews

Having carried out a qualitative research in the form of an expert interview format, the necessary results were obtained, which are necessary to achieve the research goal and correspond to the tasks set. Thus, responses to the survey form were received from representatives of 26 companies from various countries with developed and emerging markets (Figure 4).

The name of the country	Developed/emerging market (D/E)	Number of responding companies
United States	D	1
Germany	D	1
Portugal	D	1
The Netherlands	D	2
Iceland	E	1
Canada	D	1
Estonia	E	2
Belgium	D	1
Denmark	D	2
New Zealand	D	3
Israel	D	2
Slovakia	E	1
Brazil	E	1
Argentina	E	2
South Africa	E	2
<b>Bulgaria</b>	E	1
Egypt	E	1
Turkey	E	1

Figure 4. Respondents of the survey

As a result, 14 responses were received from companies-respondents from countries with developed markets, and 12 responses from companies-respondents from countries with emerging markets. The FTSE Group describes the criteria by which countries in this study were divided into two different groups (FTSE Russell, 2021).

Thus, 25 out of 26 companies identified themselves as operating in the edtech industry, only the representative of the one company replied that their company belongs to the office and home design industry. Therefore, we will only consider the responses from 25 companies.

Figure 3 illustrates that 48% of companies are micro-companies; 40% are small businesses, 12% are medium-sized, and none of the responding companies position themselves as large businesses. The question was «How many people work for your company? »

It is also worth noting that a large number of companies, which are still startups, took part in the study. Their number is 17 companies, or 68%. This is probably why a large number of respondent companies are micro or small enterprises.

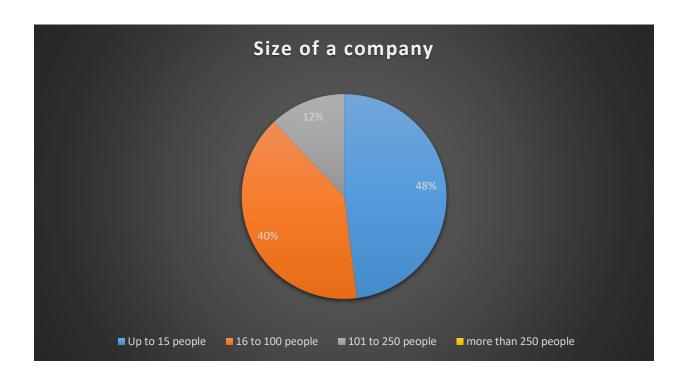


Figure 5. Size of a company

Finishing with the block about information about the responding companies, let us move on to the block about the company's resources and carefully analyze the main results. The questions in this block relate to the resources of the organization. These resources were divided into 5 categories: physical (Infrastructure, Manufactured Product, Raw material etc.), financial (Share Capital, Retained Earnings, Debenture, Venture Funding etc.), human (Employees, Corporate Culture etc.), intellectual (Brand, Patents, Copyrights, Partnerships, Customer Databases etc.) and technological or digital (Technologies, Innovations, Engineering etc.).

The most important resources of edtech companies are technological resources (36%) and human resources (32%). In addition, 16% of the respondents ranked intellectual resources as the most important resources. It is also worth noting that one company representative considered financial resources the most important for their company; the two companies have not yet been able to identify one single important company resource, answering technological and human as well as technological and intellectual. Figure 4 illustrates the distribution of the respondents' answers according to the importance of resources.

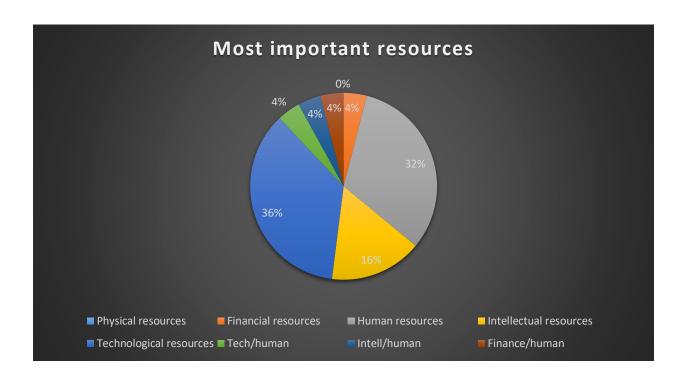


Figure 6. Most important resources

The other two important factors that I also wanted to know in this study are the creation and imitation of resources. For example, 17 out of 25 companies said they are working to create certain resources. Most of these resources can be defined as "technological"; companies leverage what they already have by continually innovating and developing. Among such resources, companies noted work on artificial intelligence, software, improving technologies, creating their own platforms and products, as well as attracting financial assets.

In turn, speaking about imitation of any resources from competitors or companies from other industries, only 4 companies out of 25 said that they are engaged in imitation. By imitation, they meant taking over intellectual educational content and material, working on technological resources, using third-party service providers and creating search technologies like Google.

The next point worth noting in the "Resources" block is competitive advantage, namely, which resource, in the opinion of the responding companies, provides them with a competitive advantage. Thus, the resource that represents a competitive advantage for edtech companies is the multiple options that companies have noted. Among them: the company's team, the company's own technologies and innovations, the platform, artificial intelligence and algorithms, its own approach to education.

Speaking about the resources that the respondent companies lack, and the resources that the competing companies have, 12 companies spoke about the lack of financial resources and funding that their direct competitors have. In addition, some companies expressed their opinion about the

lack of the necessary access to potential customers, the innovativeness of the content, the number of company staff, the lack of brand awareness and local social networks.

Moving on to the next block of questions, devoted to the mods of entering foreign markets, it is worth saying that this block was divided into two sub-blocks. The first sub-block includes questions for companies that have had experience of entering an emerging market, while the other implies that edtech companies have no such experience. Thus, 22 out of 25 companies had experience of entering foreign markets. Fifteen of the 22 companies had experience of entering emerging markets, and these companies are of particular value to this study. Seven companies had experience of entering only countries with developed markets.

Companies were offered several modes of entering the foreign market, and the most popular option was partnership (it was chosen by 40%) of respondents, other options that companies chose based on their experience were direct and indirect export and licensing. Figure 5 illustrates how the respondents' answers were distributed in this question. It is also worth noting that two companies chose the answer that was not offered as a variant of the question, this became organic growth as a mode of entering the market, while the other chose value added resellers.

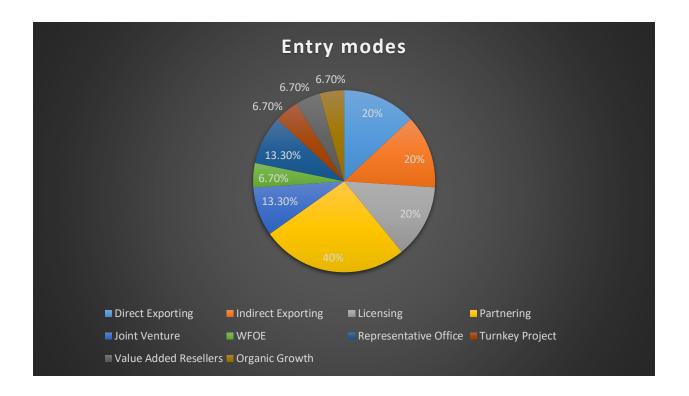


Figure 7. Entry modes

It is also worth noting here that such options as franchising, piggybacking, Greenfield investment were not selected even once, but were in possible answers.

Why partnering has become the most popular way of entering the market for edtech companies? The companies were asked why they chose this option to enter the foreign market. Speaking of partnership, the main factor that influenced the decision of the companies was finding a partner and his knowledge, which would help the company understand the new market and be more likely to be successful in it. The companies also noted low entry barriers due to this mode of entry, low investment costs, and the speed of entering the market. Small companies, which are the majority of the responding companies, most often try to find a partner in a new market, a larger company that is familiar with the market, and is ready, perhaps, to distribute the product of the partner company under its own name, which is already known in this market (Jaakkola, 2019).

46.7% of the company considered the entry to the market successful, and 40% found it difficult to answer the question whether the entry was positive. Only two companies said that entering the foreign market had negative aspects and did not become successful. In such a case, the companies chose the Value Added Resellers option and the joint venture.

The next question is about the resources of the companies that they used to enter a particular country. Again, the most popular and significant resources for companies in building a market entry strategy were technological (53.3%), intellectual (46.7%) and human (40%). In addition, speaking about the lack of any resources, the companies complained about the lack of necessary investments and financial resources, human resources, and ignorance of the state tax policy to enter the foreign market. It should be noted from this that technological resources are the most important for edtech companies. Human resources are also important, but they are of particular importance when a company is in the startup phase. It is also worth noting the significant importance of the company's intellectual resources and the lack of finance for the majority of "young" companies in the edtech industry.

The last question in this block was the question of further expansion into countries with an emerging market, and 66.7% of companies expressed the opinion that they plan to continue their development in the future and enter emerging markets. As a result, recommendations for these companies will be presented on how to be successful in new markets and with further expansion, using the necessary resources.

The next block was presented for companies that did not have experience of entering emerging markets, but their experience is also important for this study.

The main reasons why edtech companies did not want to enter countries with an emerging market is the focus on developed markets, the lack of a budget and expertise (which we have already observed with companies that had experience of entering emerging markets), and the lack of demand for the product. However, out of these 10 companies, 80% were in favor of planning to

enter emerging markets in the future, so the recommendations that will be made for these companies as well.

When it comes to resources, companies believe that when entering an emerging market, market knowledge (perhaps a partnership option is appropriate), financial capacity, and human resources in a new country. An interesting fact is that none of the 10 companies gave their opinion on technology or intellectual resources. This will be discussed briefly later in the comparative analysis.

#### 2.4 Content analysis as a secondary data collection method

Content analysis is a special way of collecting data, which is formulated as a research technique for objective, systematic description of a particular content (Berelson, 1952). In the case of this research, the content will be information about edtech companies, their resources, products and services, reports, documentation and communication with customers.

Content analysis is an excellent complement to this research and a source of data for the case study, adding to the research the reliability and credibility of the entire research process (Bengtsson, 2016).

This type of analysis has already been explored in studies on organizational strategy, as well as in the literature on strategic management (Pearce, 1987). In our study, the analysis will be directed to a greater extent not at textual sources of information, but at visualized ones, that is, we will read the information necessary for our research and the study from the websites and products of companies in the edtech industry. All companies that took part in the expert interview and provided full information were selected for the content analysis. Further, when considering the companies and the results obtained as part of the case study, the circle of companies will be narrowed down to 10 and considered in more detail to identify recommendations.

The main information in which interest has been shown within the framework of the content analysis concerns the following areas:

- 1. Products / services provided by the company, their quantity;
- 2. Client segments of the company;
- 3. Adaptation of the company's products / services to different client segments (language, mentality, culture, accessibility);
  - 4. Customer support of the company;
  - 5. Representation of the company in various social networks, both local and global.

We are interested in 25 responding companies, their sites, products and services and will be the objects of content analysis. Let us now consider each of the responding companies in terms of these factors (see Appendix 3).

First, consider the "Products / services provided by the company, their quantity" factor. As can be seen from the results of the analysis, most companies have a product designed for several customer segments. These products are mostly educational platforms; educational online services; interactive and gaming educational applications; data management systems, accounting for learning and performance; services for content development and search for professional qualifications; digital books and media materials; applications for connecting students, schoolchildren with parents and educational institutions.

Most of the listed companies' products are created using artificial intelligence or software developed by the company. In addition, companies expect that their product will be convenient for all groups of customers from different countries where the company operates. Only a few of the companies in the sample present personalized bespoke offers. In terms of the number of products, most companies only have one product with different pricing packages for different customer segments, and only a few companies have more than one product. As the results of the study show, those companies that have two or more products are less likely to encounter problems with attracting investment and with a set of client base, further marketing campaigns and providing a competitive advantage. In their responses to expert interviews, representatives of these companies did not speak out about problems with financing.

Considering the analysis results for the "Client segments of the company" factor, the following conclusions can be drawn. Most companies work with several customer segments (2 or more), but there are also companies that work exclusively in one segment, for example, supplying content and materials to educational institutions or placing orders for companies and corporations. There is a significant correlation between the company's client segments and the experience of entering foreign markets. If a company works with several client segments, then in most cases this company had experience of entering a foreign market, and the likelihood of entering an emerging market also increases.

The next factor to be considered in the content analysis is "Adaptation of the company's products / services to different client segments", and this factor is one of the main and serves as a basis for proposing further recommendations.

After conducting content analysis, it became noticeable that a very small number of companies are adapting their products for different markets where the company operates, as well as for different client groups. For example, a company that operates in Portuguese-speaking countries such as Portugal and Brazil has experience of entering a foreign market, in a country

where the main language is English or German. However, the company does not adapt its platform or application for these regions, leaving it in Portuguese. In Germany, the number of Portuguese-speaking people is 114,825 (Observatório da Emigração, 2021), which is a tiny percentage of the total population of Germany, and this percentage is unlikely to be served by this company. The situation is the same with Switzerland, Liechtenstein and other German-speaking countries.

The situation is similar with other companies. Moreover, some companies not only do not adapt the language of the application or platform for a new market, they also do not adapt it for customer segments. For example, a company that has developed apps to help students with school subjects in primary and secondary school (biology, mathematics, physics, etc.) provides a similar service for students. Although students at the university definitely have other subjects that they study, the company invites them to prepare for them according to a program designed for schools.

Only a handful of companies were seen adapting their products for other regions, countries and client groups. However, it is worth noting that these companies have had experience of entering the markets of countries with the same or similar mentality, culture and language as the country of their home market. Most companies simply offer their products to as many countries as possible, and fail there, cannot raise funding, they lack experience in this market, and they also cannot build a client base.

Another criterion for consideration in the content analysis is "Customer support of the company". Here we can see that almost all companies have only one contact email / phone number to communicate with their customers, despite the fact that they are located in different countries. It has been verified that if companies have several contact addresses, then it is not possible to get any answer everywhere. Customer support on companies' websites and platforms is also poorly developed. Either there is no possibility of communication with the manager in real time, or you have to wait for an answer up to 2-3 days.

A small number of companies have developed a system of forums and blogs, where company representatives communicate with their customers and answer their questions. Another problem is the fact that usually the information is presented in one language, and communication with the manager or representatives of the company is carried out in the language of the country that the company considers its home markets. Thus, clients from other countries and regions where the company operates have to communicate in the language of the company, which they may simply not know to a greater extent.

The last but not the least criterion for consideration in this study is "Representation of the company in various social networks, both local and global". Most companies have three or more social networks, in some cases, social networks are also represented by regional divisions (for example, the company's Facebook page in English, and Facebook in Spanish). However,

surprisingly, there are some companies that are not represented in any of the social networks, neither local nor global. This problem correlates with customer communication for these companies, which also has a negative impact on supporting and securing a customer base in different markets, regions and countries. It is also impossible to talk about expanding the client segment, because people from other countries simply cannot find information about this company, except for the one presented on the site. However, edtech companies have only a picture and superficial information on their websites, information about the company's product is hard to find, and client can get acquainted with the product only when the client buys it. Demo periods and free versions of platforms and applications, as well as platforms and applications working in the Freemium format are also small.

## 2.5 Comparative analysis of edtech companies from developed and developing countries

Having described the main points of the analysis of expert structured interviews, it is necessary to move on to a comparative analysis of two markets - developed and developing. The purpose of this analysis is to identify (if any) the main similarities and differences between companies from developing countries and companies from developed countries. How they act when entering emerging markets, which resources are considered most important, and which modes of entry they prefer. Thus, we will be able to get two lists of recommendations: for companies from developed countries, and for companies from developing countries.

To assess the results obtained, we present a comparative table with the main factors that are important for this study (see Appendix 4). We will consider in this analysis companies that have had an experience of entering emerging markets (15 companies).

The table is divided into several sections, each of which refers to a specific factor, which we will consider and compare. These factors include: "Company's market", "Size of the company", "Startup or not", "Most important resources on the home market", "Resources to create", "Resources to imitate", "Lack of resources "," Entry mode "," Most important resources on the foreign market "," Planning to another entry ". We have nine companies from developed markets and six companies from emerging markets. Both those and other companies had experience of entering a foreign emerging market.

Considering the first two factors "Size of the company" and "Startup or not" the picture remained the same, as during the general analysis of the results of all respondents. We deal in most cases with small businesses, with a staff of no more than 100 people; most of these companies position themselves as startups.

Moving on to the resources that companies consider the most significant in the local, home market, and which provide them with a competitive advantage, here the spectrum is quite wide. However, again, the most popular and important resources for companies are technological and human resources. Two emerging market countries also highlighted the importance of intellectual resources, emphasizing brand awareness and intellectual property from companies' personal designs. Only two companies out of 15 spoke in favor of the fact that the most important resource for them is financial resources, while others are experiencing a lack of them, which will be described below.

Further, it is worth noting that companies from both developed and emerging markets are working on the creation of any resources within the company, most often this is software or a platform that companies consider unique to themselves. Most of the resources that companies are working on are technology-based. It is also interesting that only one company, which is from a developed market, is working on the creation of financial resources - the main problem of small companies in the edtech industry. This is strange, since in addition to technological resources, companies also need to think about the financial component, thanks to which they will be able to operate in local and foreign markets.

In addition to creating resources, it is also worth mentioning the imitation of the resources of competitors; however, none of the companies imitates the resources of other competing companies. Of course, we will not compare the edtech startup with the giant Google, the search resource of which one of the companies is trying to imitate. Here, three assumptions arise, with what this may be due to such inaction in relation to imitation of resources. The first assumption is that third party resources are unique in nature and difficult to imitate. Another assumption is the impossibility of imitation due to the financial difficulties of the company. Finally yet importantly, the conclusion comes from the fact that companies simply do not want to imitate the resources of other companies and are focused on creating their own unique products.

Moving on to another important comparison factor, namely, the resources that companies lack for successful development, it is worth noting that in this case the answers are not similar and you can see some differences between companies from developed and emerging markets. Thus, four out of six companies from emerging markets responded that the main problem in their resource provision is not the financial component, but the best conditions for entering the market, the time it takes both labor and personnel. In addition, one of the companies noted the lack and underdevelopment of local networks, which complicate the processes of the company's activities in the market. In turn, the majority of companies from developed countries identified the lack of financial resources as the main problem in their activities.

Continuing the analysis, let us dwell on the modes of entering the market, which were chosen by companies from the two markets we are comparing. The situation in the comparative analysis differs from the general analysis of the respondents' answers. For example, companies from developed countries with experience of entering emerging markets most often chose direct and indirect export of their goods and services to developed markets. When they chose partnering as a way to enter emerging markets, some companies failed; they also shared that such market entries were unsuccessful and they do not plan to continue expanding into emerging markets in the future. They probably need to change the way they enter the market, raising the necessary amount of funds for this.

In turn, out of six companies from developing countries, only one company failed to enter another emerging market and does not plan further internationalization. These companies most often chose a licensing strategy that was successful in most cases. Some companies also opted for partnerships and joint ventures.

Another important factor is the resources that companies consider to be significant for themselves in the new market. Here the answers of companies from developed and developing countries are similar, and for the most part companies speak about the need for human resources. You need personnel who know the market, have experience in it, because being a startup; it is very difficult to dislocate people to a new market, while not losing productivity and efficiency in the local market. In addition, technological resources are also important resources, which can be traced throughout the entire work.

#### CHAPTER 3. CASE STUDY: RESULTS AND RECOMMENDATIONS

#### 3.1 Case study analysis: main assumptions and results

A case study is a specific form of analysis through which one or more units of analysis are examined to identify any features or characteristics (Gerring, 2006). In this study, 10 companies from the edtech industry were taken as units of case study analysis. The activities of the first five companies are mostly related to developed markets, and five other companies - to emerging markets. This means that the country where the company is located and conducts most of its activities belongs to one or another type of market.

For a complete review of the selected cases, thanks to expert interviews and content analysis, the necessary data was collected to identify the characteristics of the selected companies, their resources and internationalization activities. The choice of companies for the case study depended on the results obtained during the collection of data, for example, companies from the following developed market countries became companies for the case study: USA, Denmark, New Zealand, Israel, Germany. And also five companies from emerging market countries: Brazil, South Africa, Turkey, Argentina, Estonia. The names of the companies were not disclosed due to the confidentiality and anonymity of the data.

Thus, companies from countries from all continents were covered. The factors for choosing these particular companies from the sample were: the completeness of the data provided by the company, the presence of experience in entering an emerging market, a startup company, a company that is currently continuing its work. Providers of information about the companies considered in the case study were mostly CEOs of companies, senior managers and client support managers.

For further identification of companies, we will encode the companies in alphanumeric format. So, a company from developed countries will be coded: 1D, 2D, 3D, 4D, 5D, where the number denotes the company number for research, and the letter D means that the country of the company belongs to a developed market. In turn, for developing markets, the designations will be as follows: 1E, 2E, 3E, 4E, 5E, where the letter E means that the country of the company belongs to an emerging market. We render this in the form of Figure 8.

USA	DENMARK	NEW ZEALAND	ISRAEL	GERMANY
1D	2D	3D	4D	5D
BRAZIL	SOUTH AFRICA	TURKEY	ARGENTINA	ESTONIA
1E	<b>2E</b>	3E	<b>4E</b>	5E

Figure 8. Companies' coding

The figure 9 highlights the main characteristics of each of the companies under consideration.

Company	Key characteristics
1D USA	The company employs up to 15 people.  Product – a platform to search for information and media on the Internet. Works in the North American and European markets. Clients – students, companies, schools, teachers.
2D DENMARK	The company employs up to 15 people.  Product – a platform for creating and distributing books, as well as improving literacy, reading and writing skills. The main markets are Denmark and the USA, as well as users from more than 50 countries around the world. Clients – teachers in primary and secondary schools.
3D NEW ZEALAND	The company employs from 16 to 100 people.  Product – a platform for adapting educational processes, content and materials. It operates in two markets – New Zealand and the USA.  Clients – educational institutions and teachers, individual coaches and tutors.

	The company employs up to 15 people.				
	Product – a platform designed for content				
	creators, learning businesses, and				
4D	entrepreneurs looking to launch and strengthen				
ISRAEL	their digital education business. It operates in				
	two markets - Israel and the USA. Clients -				
	educational content creators, entrepreneurs,				
	educational business owners.				
	The company employs from 16 to 100 people.				
	Product – an adaptive learning system for math				
	replacing printed textbooks or exercise books.				
5D	Operates in 7 countries with developed and				
GERMANY	emerging markets. Clients - educational				
GERMANI	institutions: kindergartens, schools, colleges				
	and universities. In addition, students and				
	schoolchildren, their parents, independent				
	tutors.				
	The company employs up to 15 people.				
	Product – an educational platform for tutors				
1E	and students. The company operates in 5				
BRAZIL	countries from developed and emerging				
	markets. Clients – two segments: teachers and				
	tutors, and on the other hand, students.				
	The company employs up to 15 people.				
	Product – a platform for building an interactive				
<b>2</b> E	and motivating learning process in educational				
SOUTH AFRICA	institutions. The company operates in South				
	Africa and Kenya. Clients – educational				
	institutions, private teachers.				
	The company employs from 16 to 100 people.				
3E	Product – build complete courses on a platform				
TURKEY	for teachers and student engagement. The				
I CHILL I	company operates in over 90 countries. Clients				
	– primary and secondary school teachers.				

	The company employs up to 15 people.
	Product – a platform built with artificial
4E	intelligence to help you learn math. The
4E ARGENTINA	company operates in Argentina, Spain and
	Peru. Clients – students, schoolchildren,
	private tutors, teachers of educational
	institutions.
	The company employs up to 15 people.
	Product – a program for scheduling lessons for
5E	educational institutions. The company
ESTONIA	operates in Russia and the countries of the
	Baltic region. Clients – educational
	establishments in the Baltics and Russia.

Figure 9. Key characteristics of case-study companies

## Developed market countries

Let us first consider edtech companies from developed market countries. All of the companies in this group operate in at least two markets, but for some the range reaches over 50 different markets. All these companies belong to micro and mini-organizations, with a staff of no more than 100 people.

Considering the most significant resources in the home market, here the representatives of the companies differ in opinion. Representatives of 1D and 2D companies spoke in favor of technological resources, while representatives of 3D and 5D companies spoke in favor of human resources as the most necessary in the home market. A 4D respondent expressed the following position regarding the company's most important resources: "Hard to answer only one - for us it's financial, people, IP". Four out of five surveyed companies are working to create other resources within the company. Here are the responses from company representatives:

- 1D: "Financial ones".
- 2D: "We are working on a unique AI and Machine learning project where we will be able to identify how young students write and see their development over time".
  - 3D: "New products. Potentially investment in the future".
  - 5D: "We build a platform and content".

When talking about the most important company resource, company representatives talked about their products, namely the platforms and the content they create. When talking about a lack

of resources, 3 out of 5 companies said they were suffering from a lack of funding, a representative from 1D spoke about the lack of agility, and a representative from 2D spoke about the "Student writing data, teacher feedback option".

All companies had experience of entering foreign markets, so it is worth considering what modes of entering the market they used. Three out of 5 companies used direct / indirect export, and in two out of three cases, market entry was successful in their opinion. However, when talking about 3D and 5D, they used Value Added Resellers and Partnering as ways to enter the market, noting that in these cases, the market entry was not successful. Largely, companies used the technological resources that they had in the home market when building a strategy for entering a foreign market. The main problems faced in the new market were lack of knowledge of the market, lack of experience in it, unreliable partner and lack of support for the development and marketing of the product in this market. Due to these reasons, as noted by the representatives of the companies, they did not succeed in the new market.

In the new market of two companies, human resources became important, and for one -technological ones. Two more companies found it difficult to answer this question.

Speaking about plans for further expansion, representatives of 1D, 3D, 5D companies could not give any predictions, and representatives of two other companies said that their companies are planning to further enter emerging markets.

All reviewed companies have only one product, which is promoted both in the home and in other markets. These products are in all cases educational platforms. Considering the client segment of companies, in 4 out of 5 cases, companies have several client segments, and only in one case, the company works with only one group of clients.

Speaking about the adaptability of companies' products for different markets and client segments, it is worth noting that in all 5 cases the company's products are presented in only one language for all countries and client segments with which the company works. Moreover, as already discussed, all of these companies operate in different markets with different cultures and mindsets. Companies offer different pricing packages for different client groups.

Taking into account the relationship of these companies with customers, in 4 out of 5 cases, companies represent only one channel of communication for all customers from different countries in which the company operates. In addition, there is the possibility of communication only in one language - the language of the company's home market. Only 5D offers different communication channels for different countries and client groups.

Social networks of companies are developed, new content appears quite often in them, but in most cases, the content is reproduced only in one language. Communication with companies via social networks is difficult, since either such an opportunity is generally hidden, or it is necessary to wait for a very long time for a response from company managers.

Emerging market countries

Now let us dwell on the second group of companies that belong to emerging market countries. Four out of five companies belong to micro-organizations with no more than 15 employees, and only one company 3E belongs to mini-organizations with 16 to 100 employees. Each of the companies presents its products in at least three markets, and 3E is represented in more than 90 countries.

When it comes to the most important company resources in the home market, the representatives were divided. 1E and 5E companies consider the most important for themselves intellectual resources, 2E and 3E technological, and only a representative of 4E company spoke in favor of financial resources as the main engine of the company's success.

Speaking of resource creation, representatives of only two companies said that their companies create resources.

1E: "We also create technological resources".

5E: "Integrated educational platform".

Other companies are not in the business of creating additional resources. Moreover, none of the five companies imitate the resources of competitors or third-party companies from other industries.

Choosing one of the most important resources a company has, representatives in 4 out of 5 cases noted the following:

1E: "Intellectual resources".

2E: "International experience and skills".

3E: "The contents that has developed in partnership with academics".

4E: "Innovation".

5E: "Reliable service".

In addition, 3 out of 5 company representatives expressed the opinion that they lack knowledge of the market, access to new markets, as well as local communication networks with customers. A representative for 1E spoke in favor of a lack of financial resources, and a representative for 4E said that their company had no direct competitors at all, who might have any resources that their company did not have.

When considering the ways of entering foreign markets that companies have chosen, four out of five companies chose licensing/partnering or joint venture, depending on the market and country to which they entered. Only one company chose indirect export as its way of entry. The

reasons for choosing these modes of entry were the following formulations of company representatives:

1E: "Important to have a partner that knows the local market".

2E: "Able to maintain quality control while being quick to market".

3E: "In order to test this market with our limited budget".

5E: "Cost efficiency".

In addition, 3 out of 5 company representatives expressed the opinion that they lack knowledge of the market, access to new markets, as well as local communication networks with customers. A representative for 1E spoke in favor of a lack of financial resources, and a representative for 4E said that their company had no direct competitors at all, who might have any resources that their company did not have.

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3E: "In order to test this market with our limited budget".

5E: "Cost efficiency".

Technological, financial and intellectual resources have become the main resources in building a market entry strategy for companies. Unfortunately, representatives of some companies perceived intellectual and technological resources as one whole. Considering the resources that companies lacked when entering a new market, these were market knowledge, experience in it, human resources and financial costs for product marketing. In four out of five cases in a new market, human resources have become the most important resource, namely a team of people who know the market. This means either people specially trained for this market, or the personnel of a partner company. Also in four out of five cases, company representatives expressed their intentions to further enter other emerging markets.

All of the companies under consideration have only one product - an educational platform for one purpose or another. In addition, companies work with no more than two customer segments, providing them with their product. In four out of five cases, companies' platforms are tailored for all markets and client segments, with a choice of different languages. When it comes to company-customer relationships, only in one case does the company have multiple contacts for

different customer groups, as well as a forum and blog for answering questions. In addition, one in five companies has no social media presence at all.

### 3.2 Recommendations

After reviewing the results of the expert interview, content analysis and benchmarking analysis, you can make the following set of recommendations for edtech companies. In order for edtech companies to gain a competitive advantage in a new market and to be successful, the following recommendations are proposed after the conducted research. Recommendations are divided into four categories: financials, market knowledge, imitations, adaptability.

For companies from developed markets the study shows that companies from developed countries are more susceptible to funding shortages than companies from developing countries. Therefore, the main task is to find sources of financing for these companies. Many companies focus on only one of the majority of edtech segments, developing solutions, platforms and materials specifically for this segment, however, it is necessary to take into account the growth of all educational segments; and the need for the development of certain segments occurs at different periods. The government and investors are also moving forward and looking for the most profitable options for investing their own funds. Therefore, in this case, companies need to affect as many segments as possible and conduct activities there. For example, if a company is engaged in preschool education and makes various materials and courses for this consumer segment, then it will be a profitable decision both for the company to develop its activities and for investors to invest funds, to add to the ranks of its activities, for example, corporate training. More and more companies are leaving for remote work, attracting people from many countries of the world. However, these employees may not be experts in the required fields, and in order for the company to be full of qualified personnel not only in the home market, but also in the foreign market, the company needs to train its employees, but also not all companies have such programs. Third-party edtech companies can come to the rescue.

Another important way to raise funds is government orders and venture funds, which have grown in popularity after the coronavirus pandemic. The government and large companies are developing the economies of their countries in a remote, digital format, that is, in the environment of edtech companies, which can play into their hands. However, edtech companies should not overestimate the market they can enter, and how much of that market they can get. They need to focus on clients' pains and current trends, and not on creating a startup as a mainstream phenomenon, in which case it will be much more difficult to get funds.

In turn, for companies from emerging markets, it is not financing that is important, but rather entering the market, its knowledge and ease of entry. The financing of the edtech industry goes to developing countries in larger flows than to developed countries. This is influenced by the interest in education in general; the global increase in literacy and qualifications of the population; in addition to this, the constantly increasing population growth play an important role. Thus, finance is an important component of the success of these companies, but not a major factor. Funding avenues in developing countries are better established and progress at an uninterrupted and rapid pace.

Therefore, it will be necessary for companies from emerging markets to gain experience of operating in the market where companies are going to enter. Gaining this experience and market knowledge can consist of several options. As the most optimal option, which was tested in the study, it is the search for a partner - a third-party company that already operates in this market, knows its main characteristics, subtleties and tools that help to achieve success. In this case, the company will be helped by partnering as one of the most preferred ways to enter the market and licensing. If, thanks to partnering, the company can immediately start its activities in a new market; then with the help of licensing, the company can increase its market awareness, understand how a product or service gets along in this market and whether it is worth entering the market fully by opening a representative office or by entering into a partnership agreement or creating a separate joint venture.

Another option that will help you get to know the market is human resources in that market. The research has shown that the most important resources for edtech companies in the new market are human resources. However, as described above, human resource deployment is difficult, especially for startups. Therefore, it will be necessary either to train employees to work in a new market, or to hire employees who are already working in this market. In the second case, you will need to adapt to a remote working format, or open a representative office to work in a new market.

The next recommendation, which will be useful for both companies from developed countries and companies from emerging markets. It is about imitating resources. Not all companies can afford to create those resources that can compete with those of competitors. Therefore, it is important to create a resource that would be difficult to imitate, but in turn try to imitate the resources of other companies. This can lead to entering a new segment of the edtech industry, gaining some market share due to a price offer with a simulated resource together. Companies should not be hung up on creating one resource within their company, be it a platform, algorithm, courses, artificial intelligence, etc. They need to develop comprehensively so as not to drown in the mass of startups like them and to attract financing for development both in their home market and in potential markets.

Finally, the technology resources of companies should not be overlooked. Each company has its own platforms, systems, algorithms, etc., and they must be updatable. Living in the era of digitalization, new trends appear in the world every day, including in education, for which, perhaps, edtech companies were not ready. These companies should be adaptive organizations, creating technological resources for the conditions of the external changing environment. Looking through the technology resources of many companies, a large number of problems were identified. At a time when the company positioned itself as an international company, operating in several developed and emerging markets, the company did not adapt to the needs of customers. For example, an educational platform can only be in one language, although it is offered to customers from countries where this language is not popular or native. Companies also do not adjust their resources to the mentality, culture and market of new countries, leaving everything in the same, universal form. These companies are more likely to fail in new markets than those that are adaptive organizations and go out of their way to make sure their product aligns with born global strategy.

Thus, briefly recommendations may look like this:

- 1. Creation of more than one product and development of subsequent tools for its maintenance, promotion to the market and the possibility of obtaining funding;
- 2. Analysis of competitors' products in order to assess the possibility of imitating similar products, finding problem areas and risks;
- 3. Adaptation of the company's products for different regions, countries and client segments (language, interface, content, etc.);
- 4. Communication with customers, support and development of social networks to increase company awareness and attract a customer base;
- 5. Using licensing, partnering and joint venture to study the market and enter a new market for companies from emerging markets; use of direct / indirect export for companies from developed markets;
- 6. Emphasis on technological and intellectual resources in the home market and human resources in the new market of the company;
- 7. The beginning of foreign expansion from markets with similar cultures and mentality, if there are no financial and other opportunities to become a global company at once (in this case, the Uppsala model of internationalization will matter).

### **CONCLUSION**

In conclusion, it should be noted that the edtech industry develops not only global education in general, but also contributes to the growth of a fairly new sector of the economy of states. Edtech presents not only the possibility of development and learning, but also the elimination of global inequality and the inability to have the same rights for all inhabitants of the planet Earth.

Further development of the edtech industry can take place according to several scenarios. In the first scenario, technologies and various computational methods, algorithms and artificial intelligence will enhance all-round learning, helping learners feel the learning process, despite the digital format; they will be able to create emotions and mood (Mcstay, 2018). The effectiveness of edtech tools will also increase, thanks to the integration of new technologies and the introduction of innovations into the educational process. Thanks to VR / AR technologies, students will be able to understand and feel in advance, what they will study, what it is for and how the educational process will take place. New trends and educational media will emerge to complement the edtech industries (Bruch, 2018).

In the second scenario, the edtech industry will become automated and scalable. Children will no longer need to go to school; all education will go to the digital world without reference to time and location. Physical work and on-site presence will no longer make sense, as freelance will occupy most of the market. There will be a blurring of the private, public, economic and other spheres due to global digitalization (Macgilchrist, 2019). According to this scenario, every person must be familiar with digitalization and its main tools, otherwise he will not be able to work and live in this environment. All spheres will go from formal to free and digitalized.

In the third scenario, we can talk about saving the planet. Most technologies, including educational ones, will be aimed at improving social well-being, citizen participation in society, protecting personal data and combating environmental problems (Kultusministerkonferenz, 2016).

It is not known how this industry will develop further, and what scenario it will follow. The world is changing very quickly and we can hardly keep track of the emergence of new trends, technologies and other companies. Undoubtedly, the edtech industry will develop further and bear fruit both in local markets and globally.

The research can serve as a certain basis or hint for further research in the field of edtech and the internationalization of edtech companies. There are still a number of unresolved issues with which future research can be linked. What new resources and opportunities can emerge in the edtech industry in the next 10 years, and how will they affect the industry as a whole? Does the choice of a way to enter a foreign market depend on the country or client segments with which the company works? How to properly build a marketing campaign for a product in a new market?

Researchers are waiting for an even greater number of unresolved questions, and this is only a small part of them. What is the scenario for edtech in the next decade?

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# **Appendixes**

# **Appendix 1. Expert Interview Questionnaire**

# «Application of the Resource-Based View Framework in Edtech Companies when Building a Strategy for Entering Emerging Markets»

Dear Sir or Madam,

more than 250 people

☐ Can you call your company a startup today?

My name is Sergei Poddubnyi, and I am currently completing my Master in Management program at the Graduate School of Management of St. Petersburg State University. I am working on a study on "Building a Strategy for the Entry of Edtech Companies in Emerging Markets: A Resource-Based View" and I kindly ask you to answer a few questions in this interview that will help me gain the necessary and valuable empirical data for my research.

The study is strictly confidential and any information you provide will be sent solely for my scientific purposes.

If you cannot answer any of the questions or company policy does not allow you to do so, please put "-".

This interview should not take you more than 10-15 minutes to complete.

Part 1 Company's information  ☐ Please indicate the name of your company.	
☐ Do you belong to the edtech industry? (If "no", please indicate in which operates)	- n industry your company
☐ In which countries does the company operate?	-
☐ How many people work for your company?	-
<ul> <li>Up to 15 people</li> <li>16 to 100 people</li> <li>101 to 250 people</li> </ul>	

- Yes
- No
- Find it difficult to answer

Part	2	Resource	20
1 41 1	4	IZCSOULC	- N

• No

$\square$ What are the most important resources in your company (please indicate all possible resources)?
<ul> <li>Physical resources (Infrastructure, Manufactured Product, Raw material etc)</li> <li>Financial resources (Share Capital, Retained Earnings, Debenture, Venture Funding etc)</li> <li>Human resources (Employees, Corporate Culture etc)</li> <li>Intellectual resources (Brand, Patents, Copyrights, Partnerships, Customer Databases etc)</li> <li>Technological resources (Technologies, Innovations, Engineering etc)</li> <li>Other</li> </ul>
☐ Are there any resources your company is currently working on to create?
<del></del>
☐ Are there any resources your company is currently working on to imitate?
☐ What is one resource in your company that, in your opinion, best provides a competitive advantage?
☐ What resources do your competitors have that your company does not have?
Part 3 Entry modes
☐ Has your company had any experience of entering to another country?
<ul><li>Yes</li><li>No</li></ul>
Part 4 Emerging market
☐ Was it an emerging market/developing economy?
• Yes

Part 4.1 For those companies who had experience of entering emerging economies.
$\Box$ If your company entered a country with an emerging market, which entry mode did you choose (Multiple-choice question)
<ul> <li>Direct Exporting</li> <li>Indirect Exporting</li> <li>Licensing</li> <li>Franchising</li> <li>Partnering</li> <li>Joint Venture</li> <li>Wholly Foreign Owned Enterprise</li> <li>Greenfield Investment</li> <li>Representative Office</li> <li>Piggybacking</li> <li>Turnkey Project</li> <li>Other</li> </ul>
☐ Why did you use this mode?
☐ Was this entry successful in your opinion?
<ul> <li>Yes</li> <li>No</li> <li>Find in difficult to answer</li> </ul>
☐ What resources did your company use when building a strategy for entering a country with an emerging market? (Please choose all possible options)
<ul> <li>Physical resources (Infrastructure, Manufactured Product, Raw material etc)</li> <li>Financial resources (Share Capital, Retained Earnings, Debenture, Venture Funding etc)</li> <li>Human resources (Employees, Corporate Culture etc)</li> <li>Intellectual resources (Brand, Patents, Copyrights, Partnerships, Customer Databases etc)</li> <li>Technological resources (Technologies, Innovations, Engineering etc)</li> <li>Other</li> </ul>
$\Box$ What resources did you find lack when building a strategy for entering a country with an emerging market?
☐ What company resources have become the most important in the new country with an emerging market?
☐ Do you plan to enter another country with an emerging market in the future?

• Yes

• No
Find it difficult to answer
Dant 12 For those commonics who had not commission of outcoing amounting market
Part 4.2 For those companies who had not experience of entering emerging market.
☐ Why did not your company enter a developing country with an emerging market?
☐ Is your company planning an entry in the future?
• Yes
• No
☐ What resources do you think will be crucial when entering a country with an emerging market?
<del></del>
Part 4. Get in touch
$\Box$ If you have any requests, wishes and advices regarding my research, please feel free to write it below.

Thank you very much for your time and attention to my research!
All the best!

 $\square$  If you would like to see the results of the study, please, leave below your email address for

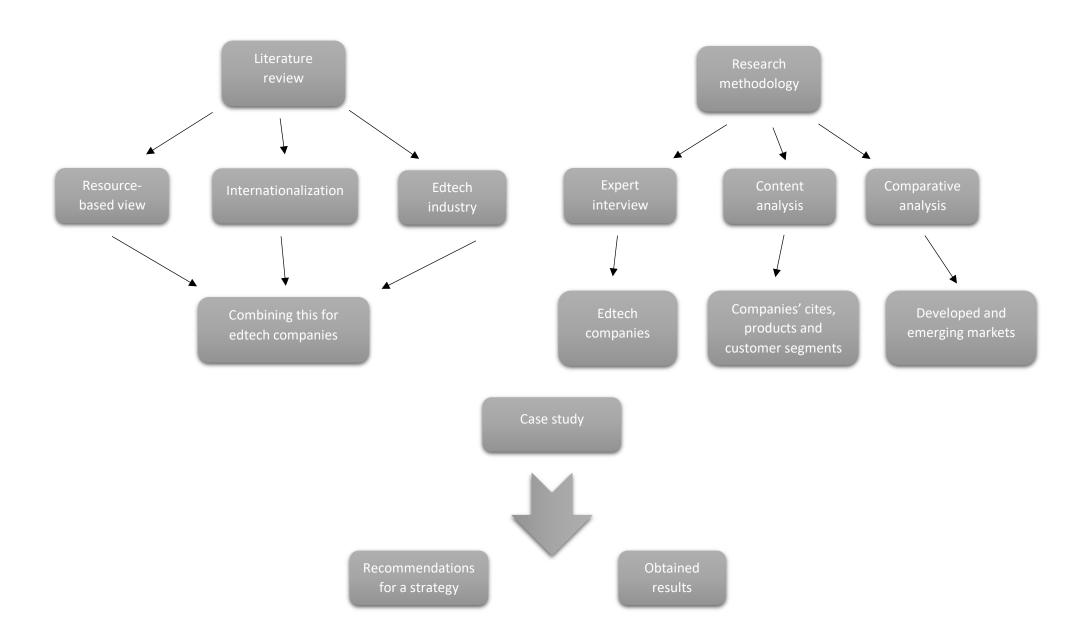
Sergei Poddubnyi

further communication.

Saint Petersburg

2021

Appendix 2. Logic of the research



Appendix 3. Content analysis table

Number of the company	Products / services provided by the company, their quantity	Client segments of the company	Adaptation of the company's products / services to different client segments	Customer support of the company	Representation of the company in various social networks, both local and global
Company 1	Optimizing digital content for users. Product for various categories of clients in B2C, as well as for the B2B sector.	K12, students, companies and freelance workers.	The platform is the same for all segments, regardless of the language and mentality of the various groups.	Contacts are provided for partners and clients of all countries in which the company operates.	Facebook, Twitter, LinkedIn.
Company 2	Online training; security awareness content platform.	Corporates, independent workers and individual companies.	One platform with one language for different clients from different countries.	Support is available only for customers in some countries. The rest are forced to apply to the company through offices in other countries, despite the fact that the company operates in their country.	Facebook, Twitter, LinkedIn.
Company 3	Custom work with the same theme of interactive digital experience and visualization of information and content. There is no definite single product.	Work exclusively in the B2B segment, orders for other companies.	The company has various teams responding to orders from various companies from many countries. All information is updated for the European region, despite the fact that the company operates in other regions.	Communication is possible only through the head office, despite the fact that the company operates in more than 7 countries.	Facebook, Twitter, LinkedIn, Instagram, YouTube, GitHub.
Company 4	Educational platform for tutors and students.	Two segments: teachers and tutors, and on the other hand, students.	A single platform for all countries and clients with a single language and functionality.	One contact service for everyone; as well as a feedback form with the ability to communicate with support in only one language.	Facebook, Twitter, Instagram.
Company 5	One text service operator application suitable for different customer groups.	Several client groups: schools, universities, teachers, families, coaches.	The application is available only in two countries - the USA and Canada, it is fully adapted for these countries.	It is difficult to contact support, there are no contacts, you need to communicate through a request form, which cannot be found immediately, or through social networks.	Facebook, Twitter, Instagram.

Company 6	A platform to search for information and media on the Internet.	Students, companies, schools, teachers.	One application in one language, with different price packages for different segment groups.	The company positions itself as a global one, but has only one, besides social networks, a way of communication for all customers from different countries.	Facebook, Twitter, YouTube.
Company 7	Educational app with different price packages for students. Educational e-book, coach sessions, video workshops.  One customer segment is students.		One application in one language for different areas of study for students from different countries.	The company has a forum for communication and customer support, communication with the manager on the website and through instant messengers.	Facebook, Instagram, LinkedIn.
Company 8	A school management system that integrates home, school and local government.  The client segments include students, their parents and the school administration themselves.		The ability to choose a variety of languages, specifically for clients from the countries with which the application works. However, all news and updates are in one language only.	One contact with the ability to communicate in one language for clients from all countries.	None
Company 9	A platform for creating and distributing books, as well as improving literacy, reading and writing skills.  The main client group is teachers in primary and secondary schools.		The app is available in one language and works in over 50 countries.	The main offices of the company are located in two countries with which there is an established relationship. International customers need to communicate through these offices.	Facebook, Twitter, LinkedIn, YouTube, Instagram.
Company 10	A program for scheduling lessons for educational institutions.  The main client group is educational establishments in the Baltics and Russia.		Possibility to select all languages of the countries in which the company operates. Application examples are presented in only one language.	One way to contact the main office, there is no manager support on the site.	None
Company 11	Development of virtual laboratories personalized for educational institutions.	The client group is educational institutions in countries of all continents.	Different teams for educational institutions from different countries, personalized orders.	Chat with the manager on the site, your forum and contacts of the main office.	Facebook, Twitter, LinkedIn.

Company 12	Innovative learning scenarios based on gamification and digital games.	Two client segments are teachers and students.	An international company with information in only one non-international language. Products are created in the same language.	The form of communication with the manager on the site and communication with the head office in one language.	Facebook, LinkedIn, YouTube, Instagram.
Company 13	A content creation platform designed for administrators who can develop their own or partially custom courses. A platform to help students in medical science.	Client groups: educational institutions, students, teachers.	The products are adapted for all markets in which the company operates (there are 2 such markets).	There is a manager's support on the site, as well as contacts of all offices where the company operates.	Facebook, LinkedIn, YouTube, Twitter.
Company 14	A platform for adapting educational processes, content and materials.	Educational institutions and teachers, individual coaches and tutors.	One language for customers from countries where other languages. However, personalized offers for different segments.	Support exclusively through one communication channel.	LinkedIn, Instagram.
Company 15	Over 100 educational games platform for kids to develop a variety of skills.	The client segments are parents who have children of school or preschool age, as well as educational institutions.	The platform is adapted for only two markets where the company operates, despite operating in more than 90 countries.	Contacts are provided with just one email address for clients from over 90 countries.	Facebook, Twitter, Pinterest, YouTube, Instagram.
Company 16	Build complete courses on a platform for teachers and student engagement.	The main client group is primary and secondary school teachers.	The platform is adapted for both two markets in which the company operates.	One contact for all clients from different markets in which the company operates.	Facebook, Twitter, LinkedIn.
Company 17	A platform designed for content creators, learning businesses, and entrepreneurs looking to launch and strengthen their digital education business.	Educational content creators, entrepreneurs, educational business owners.	Only one language, no possibility of using and choosing other languages.	One contact address for two markets, as well as manager support on the website and platform.	Facebook, Twitter, LinkedIn, Instagram.
Company 18	A platform for help with choosing vocational guidance.	Students, university graduates and schoolchildren.	The platform is adapted to work with clients from all countries in which the company operates.	Communication is possible with only one contact address of the main office, as well as through social networks.	Facebook, Twitter, Instagram.
Company 19	A platform built with artificial intelligence to help you learn math.	Students, schoolchildren, private tutors, teachers of educational institutions.	The platform is adapted for almost all customers from all countries except one region.	Manager support through the company's website, but only one contact address for all clients.	Facebook, Twitter, LinkedIn, Instagram.

Company 20	A platform for finding an English tutor and personal online lessons.	Teachers, schoolchildren, students, parents, private tutors, and companies.	The platform is adapted for all clients from countries with a similar culture and mentality.	A large number of contacts, communication with the manager through the website and communication through the platform, as well as support in social networks.	Facebook, Twitter, YouTube, Instagram.
Company 21	A platform for simplified work with educational materials in classrooms in educational institutions.	Educational institutions, private teachers.	The company operates in 2 countries, but the platform is adapted only for the country of the home market.	One single contact for communication with all clients, as well as manager support through the site.	None
Company 22	A platform for building an interactive and motivating learning process in educational institutions.	Educational institutions, private teachers.	The platform is adapted for more than 11 cultures.	Forum, blog, support center, customer contact form on the site.	Facebook, Twitter, YouTube, Instagram.
Company 23	Web-based software that allows schools to query their grade data, analyze it to identify weaknesses and strengths.	Educational institutions: kindergartens, schools, colleges and universities.	Fully adapted for all markets where the company operates.	A feedback form on the company's website, as well as one contact for customers from two markets.	None
Company 24	AI-driven discussion platform that promote active learning in class.	Educational institutions: schools, colleges and universities.	Adapted only for the home country market and other countries with a similar mentality, despite the company's work in more than 15 countries.	Only a feedback form on the company's website, for all customers.	Facebook, Twitter, LinkedIn.
Company 25	Adaptive learning system for math replacing printed textbooks or exercise books.	Educational institutions: kindergartens, schools, colleges and universities. In addition, students and schoolchildren, their parents, independent tutors.	Adapted for only one German speaking region, and the company operates in other regions as well.	Several forms of communication for different groups of clients.	Facebook, Twitter, YouTube, LinkedIn.

Appendix 4. Comparative analysis table

№ of the company	Company's market	Size of the company	Startup or not	Most important resources on the home market	Resources to create	Resources to imitate	Lack of resources	Entry mode	Most important resources on the foreign market	Plannin g to another entry
1	Developed	16-100	Yes	Technological	None	Search technology as Google	More access to schools / end-users	Representative Office	Human resources	Yes
2	Developed	Up to 15 people	No	Human	Robotic Platforms for learning, and a Visual Programming tool based in Behavior Trees	None	Investments by large corporations	Partnering, Direct Exporting, Turnkey Project	Human resources, Technological resources	-
3	Emerging	Up to 15 people	Yes	Intellectual	Technological resources	None	Financial resources	Joint Venture	Human Resources	Yes
4	Developed	Up to 15 people	Yes	Technological	Financial ones	Continue to build technologic al ones	Agility	Indirect Exporting	Technology infrastructure	-
5	Developed	Up to 15 people	Yes	Technological	A unique AI and Machine learning project	None	Student writing data, teacher feedback option	Direct Exporting, Partnering, Wholly Foreign Owned Enterprise	Human resources who understand the culture and market	Yes
6	Emerging	Up to 15 people	No	Intellectual	Integrated educational platform	None	Better market access	Indirect Exporting	Human	Yes
7	Developed	16 to 100 people	No	Financial and human	New products. Potentially investment in the future.	None	Larger competitors have more capital	Value Added Resellers*	Human	-

8	Emerging	Up to 15 people	Yes	Human	Our software	None	Heaps of funding	Licensing	Human	Yes
9	Developed	16 to 100 people	-	Technological	None	None	Brand awareness and huge marketing budget	Indirect Exporting, Partnering, Representative Office	Financials	Yes
10	Developed	Up to 15 people	Yes	Human	None	None	More financial backing and freedom	Direct Exporting, Partnering, Joint Venture	-	Yes
11	Emerging	16 to 100 people	Yes	Technological	None	None	The size of the teams and the time in the market	-	-	Yes
12	Emerging	Up to 15 people	Yes	Financial	None	None	We don't have direct competitors	Licensing	Human	Yes
13	Emerging	Up to 15 people	Yes	Technological	None	None	Local networks	Licensing, Partnering	Relationships	No
14	Developed	16 to 100 people	Yes	Human	Rebuilding the game experience	None	More funding	Organic growth**	Pedagogy, characters, best- in-class technology.	Yes
15	Developed	16 to 100 people	Yes	Human and intellectual	We build a platform and content	None	Better funding	Partnering	-	-

<sup>\*</sup> Value Added Resellers is a company that increases the value of third-party products, adds individualization to products or services for subsequent resale to end users (KENTON, 2019).

<sup>\*\*</sup> Organic Growth is a process by which a company expands its activities and capacities using exclusively its resources, without imitation and borrowing (CHEN, 2020)