

# Service Design for Market Entry Strategy Development

Case of a Finnish EdTech Company

Ömer Faruk Doğan

Thesis for a Master of Business Administration (UAS) Degree

Degree Programme in Service Design

Turku, 2022



**DEGREE THESIS**

Author: Ömer Faruk Doğan

Degree Programme: Service Design

Supervisor(s): Elina Vartama

Title: Service Design for Market Entry Strategy Development - Case of a Finnish EdTech Company

---

Date: 27.12.2022      Number of pages: 57      Appendices: 1

---

**Abstract**

In this research, the principles of service design thinking were used to develop a market entry strategy for educational technologies as digital services.

Like any other digital services, educational technologies are trending as a stand-alone industry. The added value of educational technologies was acknowledged during the pandemic related lockdowns. Recently, many countries began redesigning their national education curricula to replace the contact sessions with hybrid models with the use of digital technology after they realized the significance of educational technologies.

Grapho Group Oy, which commissioned this research, is one of the EdTech companies which aims to combat global illiteracy through its services and products by assisting young children in learning to read independently.

This study was designed to investigate market entry strategy using a service design thinking methodology because of the commissioner's worldwide expansion strategy and willingness to enter the Turkish market. The purpose of this research was to determine whether the tools and principles of service design thinking can be used to develop and choose foreign market entry strategies for the intended market.

The study's results included general guidelines for identifying the strategic problems with the planned market entry as well as appropriate tools that could be used for further developments and expansions in the target region.

---

Language: English

Key words: service design, strategy development, market entry, educational technologies, Finland, Türkiye,

---

## Table of contents

1	Introduction .....	4
1.1	Development of this research on a verge.....	4
1.2	Theoretical perspectives .....	5
1.3	Process flow of the research .....	7
2	Research Questions .....	8
2.1	Background to the problem.....	9
2.2	Scope of the research.....	10
3	Literature Review.....	10
3.1	Education and technology.....	11
3.1.1	Education in the background .....	11
3.1.2	Education via technology .....	12
3.2	Turkish business domain .....	14
3.2.1	Education in Turkiye .....	14
3.2.2	EdTech market in Turkiye.....	16
3.2.3	Limitations of offering educational technology services in Turkiye .....	17
3.2.4	Educational technology use cases in Turkiye .....	17
3.3	Service design thinking.....	19
3.3.1	Service design thinking methodology .....	19
3.3.2	Design thinking practices for strategic marketing .....	20
3.3.3	Co-Design for strategy development .....	21
3.3.4	Strategic partnership for market entry.....	22
4	Research Methodology.....	23
4.1	Discovering the challenge .....	24
4.1.1	Stakeholder Interview .....	24
4.1.2	SWOT analysis .....	25
4.2	Defining the needs .....	26
4.2.1	System mapping method – stakeholder map and ecosystem map .....	26
4.2.2	Co-design methods.....	27
4.3	Developing the business model.....	28
4.3.1	Business model canvas method .....	28
4.3.2	Benchmarking method .....	28
4.3.3	The Persona method .....	29
5	Assessment of the Turkish Market for EdTech Service.....	29
5.1	Analysis .....	29
5.1.1	Stakeholder interviews .....	29
5.1.2	SWOT Analysis Findings .....	32

	3
5.1.3 Benchmarking findings .....	33
5.2 Deliverables.....	35
5.2.1 Business model canvas.....	35
5.2.2 Personas.....	36
5.2.3 Stakeholders map.....	41
5.2.4 Ecosystem map.....	42
5.3 Business model and market strategy suggestion .....	43
5.3.1 Practicality .....	43
5.3.2 Content localization.....	44
5.3.3 Distribution plan for the startup .....	44
5.3.4 Intellectual property .....	45
5.3.5 Recommendation for initial financing.....	46
5.4 Importing an education system from Finland to Turkiye .....	47
6 Conclusion.....	48
7 References.....	50
8 Table of Figures.....	56

# 1 Introduction

Living in a century where things evolve at a speed of light, retaining the attention of the reader at a desired level while studying the development of a technological product and service through traditional research tools is a serious challenge.

As you will notice in the next pages, the document is structured in a systematic way that to enable the smooth navigation. It is noteworthy for the reader to keep in mind that this study focuses on the strategic aspects for entering the Turkish market with a digital service that had already proven its success in several other countries.

On the other hand, although the proposed digital service is designed for children, the interviews were conducted with parents, and teachers, as the decision makers whether to benefit from the educational technology services offered by the commissioner.

## 1.1 Development of this research on a verge

The commissioner of this study, Grapho Group Oy, had been planning to enter the Turkish Market for a while.

First contact of the researcher with the commissioner took place at the beginning of 2022, during another course commissioned by Grapho Group Oy. The commissioner disclosed its interest to expand the business to certain regions and countries. Even during the group assignments related to that certain course, the commissioner was very keen to expedite the Turkish market.

After numerous virtual meetings between the commissioner and the researcher, both parties agreed on a commissioned study that would explore the suitability of the Turkish market for the services provided by the commissioner and to develop a strategy further; and then this research has been formed consequently.

Any business enterprise stands up for making profit; a service business, as an enterprise, is expected to create profit too. However, when a service business is designed with a ‘user-centric’ point of view it can be desirable for the users, as well as maintaining the shareholders’ marginal profit (Albert, 2005). With this motivation, design thinking is employed throughout this study to expedite new horizons. By combining different point of views with tangible outcomes, service design thinking tools and methods (such as personas

definition, business model canvas, service blueprint, etc.) can create consistent guidance for business professionals for a market entry.

The researcher has been intending to lead a strategic partnership for the commissioner during its operations in Turkiye, and this study was developed with the initial agreement between the commissioner and the researcher that to be the reference case for further development plans in the region.

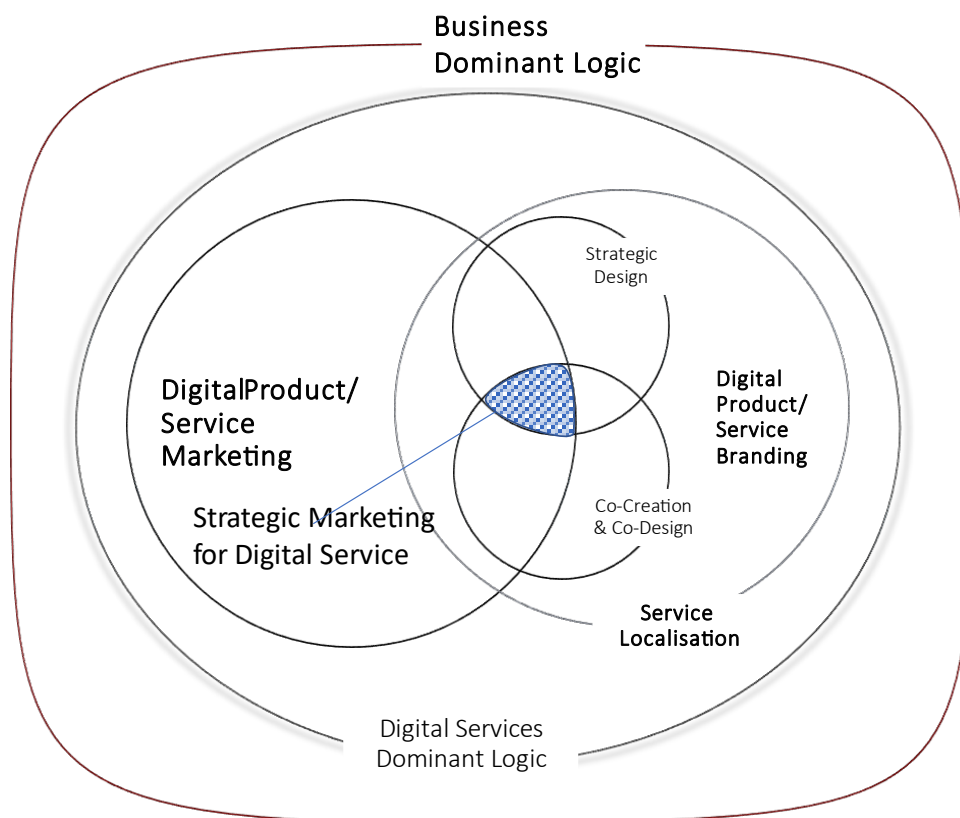
## **1.2 Theoretical perspectives**

This research, through the use of service design thinking principles, tools, and methods, intends to suggest a market entry strategy to an educational technology service providing company.

The theoretical perspective section outlines the place of this research within the academic context. To provide the reader with an outline of the ‘referred knowledge’ and accordingly to assist the reader while comprehending the aspects that have been included within this research, a frame of references is explained, and also visualized thereby.

The aim of this research is:

- To discuss the educational technologies as digital service in general and as a source of income,
- To explore the recent trends in overseas brand marketing and digital services; especially where localization can become challenging, due to the strong cultural and political codes, as well as the regulatory challenges,
- To investigate the business-related regulations for digital services in Turkiye and education-related issues in Turkish education system; to comprehend the role of local public entities over the education system,
- To have a closer look at the educational technologies that have been previously practiced on the country scale in Turkiye and assess the factors involved in success/failure,
- To define the targeted local persona for the commissioner’s case and to describe the local branding needs; to compare the differences between the personas from other regions of the world - if applicable, in order to suggest a localized strategy,



**Figure 1 Conceptual Visualisation for the Frame of Reference**

This study aimed to comprehend the concept of *service localization* within the *digital service branding* practices through the available knowledge in the literature.

The eventual aim of any business enterprise is to make profit. In that regard, the researcher reviewed the recent *digital service marketing* literature from a business dominant logic. By combining *design thinking concepts* along with the *strategic design principles*, this research obtained sufficient knowledge for understanding the interaction between *digital service marketing* practices and *service localization* activities.

As illustrated in Figure 1, the frame of reference is intentionally confined to a narrow scope for the sake of this research. It is critical to mention that political tension in the region, noticeable at the time that this research was conducted, is not examined as a decision parameter. However, any service business owners willing to export its service to a new business domain shall separately assess the political risk before taking a step further.

### 1.3 Process flow of the research

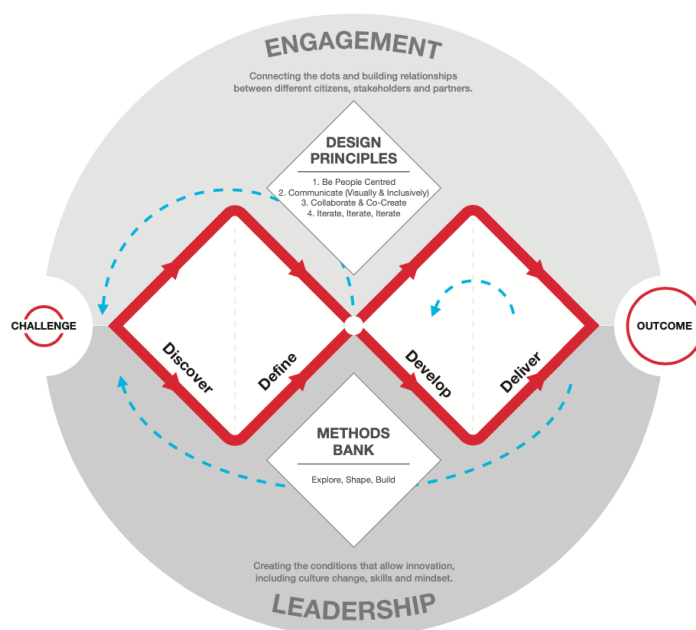
This research was designed to investigate a strategy for service exporting and then localizing within an alien business domain. According to Cambridge Dictionary (Cambridge Dictionary, 2022) the word *domain* is used for describing *an area of interest* in line with its main definition.

From the very first step until the final decision on the mode of foreign market entry, design thinking principles were applied to each step, to identify the key factors. Throughout the entire journey to formulate the outline of the research flow, design thinking principles were implemented.

The Double Diamond approach combines both *divergent* and *convergent* thinking. Divergent thinking requires to generate *innovative* and *creative* ideas as much as possible, and convergent thinking forces the designer to focus on the most practical idea among the several possible ideas. This approach encourages the designer as well as the researcher to spend more time on thinking about the problem prior to finding a solution. (Humble, 2022)

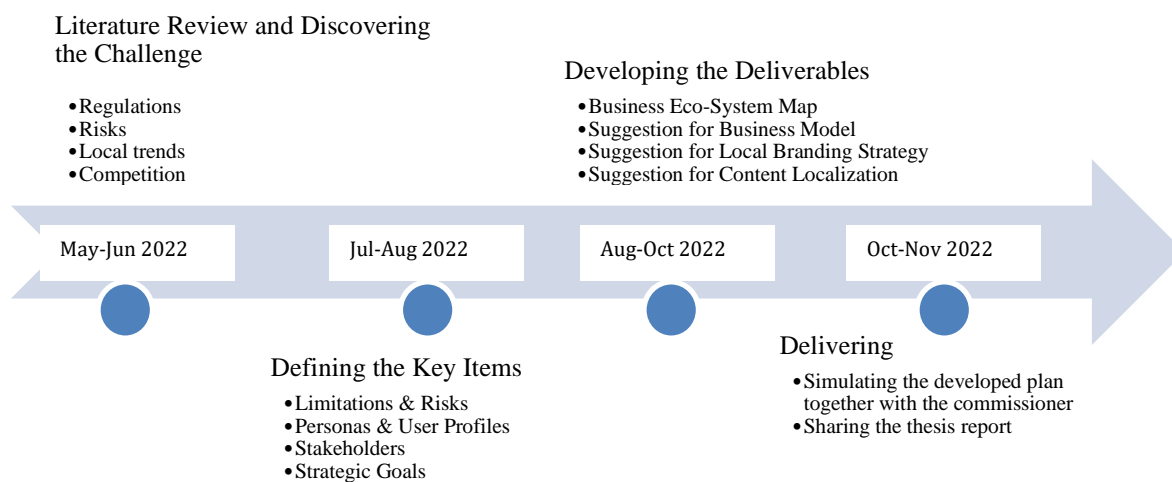
The Double Diamond approach is a simplified demonstration of a process that consists of discovering the challenge more in depth before taking any serious actions. In such a process, prior to defining the problem/challenge, the researcher is supposed to discover the major and most significant aspects of the issue, as much as possible with the available resources.

As mentioned in Figure 2, the Double-Diamond approach highlights the ‘methods bank’ where the researcher can retrieve the most suitable methods and tools from, in order to *explore*, *shape*, and *build* the deliverables as outcomes.



**Figure 2: Double Diamond Model of Design Council UK (DesignCouncil, 2019)**





**Figure 3 Time plan for the research**

It was intended that, once the development process of this research concludes a mockup session with the commissioner would be highly useful so that the researcher can test the strategy at a small-scale beforehand. However, due to some unanticipated developments on the commissioner side, the mockup session has not been realized as intended.

## 2 Research Questions

Before presenting the research questions, the researcher conducts a preliminary study and narrow down the scope of the research from the planning phase (Ratan, Ahand, & Ratan, 2019). Therefore, a preliminary study was conducted to narrow down the scope of this research. Looking from this perspective, development of the research questions itself is a matter of design thinking approach.

Describing the challenges and problems in traditional ways, linear and structured, would probably lead to traditional solutions, however, asking a distinctive question from a different perspective, might lead to a more creative solution. (Liedtka, 2018)

Traditional approaches aim to solve a problem in various ways such as *system centric*, *problem centric*, *solution centric*. In modern times, where the systems are more complex and the number of *variables* that influence the system are myriad, conducting in-depth analysis of certain issues and problems might not be as effective as it used to be previously. (Dabholkar, 2014)

## 2.1 Background to the problem

Population wise dense communities are always of interest to technology developing firms. Growing nations in developing countries by nature have a consumerist culture. The meaning of the *consumption* is wider than *consuming tangible things*; it also means to *benefiting* a service and/or a product as well.

The commissioner of this research is an Educational Technologies development company that develops, produces, and markets the early literacy development tools for children worldwide. The commissioner has been adopting the intention of expanding its services throughout the EMEA (Europe, Middle East and Africa) region including Turkiye.

Turkiye is a niche market for any digital service firms as well as Finnish EdTech (Educational Technology) companies. However, it might be a complex market as well due to the strong cultural codes of the people and the historical tendencies in the region. With its massive population of more than 8 million of schooling children (UNICEF, 2012), Turkiye can be very appealing to exploit for educational technology developers.

Despite the fact that Turkiye has the potential in terms of digital services for educational purposes, penetrating to the market for the first time must be carefully planned. Historically dominant cultural dynamics, a sensitive socio-political situation, geographically uneven distribution of wealth, discrepancies in accessing technology and internet, existence of strong local competitors are some of the key factors that affect doing business success for the first time, as well as the successful growth at later stages.

The commissioner of this research was actively seeking for a smart, effective, and cost-efficient solution for entering Turkiye. Lack of market specific know-how and consequently the need to get familiarized with the local market before taking any serious step was the key issue for the commissioner. On the other hand, due to insufficient financial means at the time, the commissioner was not able to fully fund thorough market research and analysis activities in the targeted country.

Hereby, this study aims to not only conclude with at least one feasible strategy for the commissioner, but also to provide valuable inputs that can be utilized for strategic decisions.

## 2.2 Scope of the research

The literature contains various examples of *best practices* for business enterprises; however, the circumstances sometimes require redefining the best practices according to the changes in the external environment. In this manner, this research is an attempt to figure out and propose a feasible, viable, and desirable practice, for the respected business activity.

Three main questions are investigated through the research:

- 1) What major factors to be considered while developing a strategy to enter the Turkish Market with a digital service?
- 2) What are the key challenges for a foreigner digital service company to start a business in Turkiye?
- 3) What strategy can be feasible for entering the Turkish Market with EdTech services?

In this research it was intended to mainly focus on the penetration to the Turkish Market with the existing service (such as GraphoGame English UK) offered by the commissioner in other countries. However, the current value proposition of the existing services makes the market entry for the first time much more complicated. Because the commissioner has already developed dedicated content for the target country since it is a literacy development service targeting children.

In this study, following the literature review, service design thinking tools were applied to determine the market size for EdTech services in the targeted market and the competition situation, to explore the role of cultural dynamics in adapting the products and services to the local language, and eventually to develop a feasible strategy for the commissioner to penetrate the Turkish EdTech market.

This study is mainly focused on the strategic aspects for the commissioner's case. Developing a new product/service is not in the scope of this research; the discussions around the service localization and customization within this document are only for the strategic purposes.

## 3 Literature Review

The literature review section demonstrated the main concept and characteristics of Service Design Thinking. Although the concept is comparatively novel to business professionals, the literature contains a fair number of academic publications on the topic (Erlhoff, 2020).

Service design thinking is about making the *invisible visible* through the *service proposition* (Polaine, Løvlie, & Reason, 2013).

The main difference between the product and the service is that a person can own the product, but he/she can only benefit from the service. We do not *consume* a service rather we *enter into a relationship* with it. It is not necessary to own a storage for a service, because a service shall be available for use whenever it is needed. (Polaine, Løvlie, & Reason, 2013)

Service design thinking can be applied in various fields such as education, social services, customer relations, business development, etc. Design thinking can encourage innovation when applied to business activities. In uncertain business domains, it is possible to develop sustainable business models through the tailored solutions of design thinking methodology. (He & Ortiz, 2021)

In this research, through the implementation of service design thinking into digital service marketing was aimed to deliver a feasible and sustainable business model in particular to the Education Technologies provision in an unfamiliar business environment. Prior to that, the literature is scanned to collect useful insights about the target market in order to clarify the uncertainties.

### **3.1 Education and technology**

#### **3.1.1 Education in the background**

“The history of education is in many aspects the history of reform movements and ideas.” (Oelkers, 2001)

Plenty of educational institutions were established worldwide during the last century. Both public and private schools have been attracting students, and both have pros and cons, despite the ethical controversies about compulsory education.

The education, in many countries, is seen as an industry. Public authorities and regulators have special interest in the national education system as it is a tool to seed predefined values into the fresh minds of pupils, via the regulated *curricula*. However, the controversy around the ethical aspect of a *national curricula* is that the moral values of the nations might vary. The terms like *social justice*, *intersectionality*, *sustainability*, etc. are all contingent within the context of compulsory education. (Sporre, 2020)

### 3.1.2 Education via technology

From oral communication to written communication, then broadcasting and video to computers, education starts with communication. With the rise of *computer technologies*, *computer-based learning* concepts have been introduced, and later on the concept of education evolved into *online learning*. (Bates, 2019)

Education has witnessed a paradigm shift since the introduction of computers and the internet as well as the world-wide-web. In the early eras, the internet was not invented to provide access to free information for anyone living on earth, rather it was dedicated to government officials (academics, researchers, etc.) to exchange information.

In addition to being invented for certain people to share information within a closed network, the U.S. Defense Department formed the early version of the internet as “Advanced Research Projects Agency Network” with the intention to preserve the valuable information even when disruptive events take place. Later, in 1983, the system evolved into the Internet, where different computers were interconnected by special *communication protocols*. (A Brief History of the Internet, 2022)

With the developments in computer technologies, things evolved in a way that the internet started being used to share information worldwide. Depending on the quality of internet access, people have been able to share their opinions and thoughts in various forms.

Disruptive innovations happened after serious improvements occurred in the access to internet technology globally.

A quick look at the timeline of *computers in education*, will help the readers to see that the use of educational technologies has shown drastic moves in line with the development in computer technologies.

Below is a chronological timeline to show the computers in education timeline (Timetoast, 2022):

- 80s - Computer was introduced as an object of study; Educational software used for exercise and training:
  - 1978, Hypertext; 1983, First Internet Protocols,
- 90s – Computers perceived as *communication device*; digital music, picture, video etc. got popular:

- 1990, Multimedia boom; 1991, WWW was born; 1993 Mosaic Web Browser was born; 1996, First EdTech Plan,
- 2000s – *Computer as learning and social tool; Web 2.0 – anytime anywhere learning*; Technology perceived as a tool to solve education problems.
- 2010's – *Computing universal and mobile – technology enabled learning; Accessing content on mobile devices; Internet of things for educational purposes.*
  - 2014, emphasis put on *design and associated thinking* skills.

When the social platforms were introduced for the first time, they became popular among the internet users. Some of the most renowned academic institutions developed special platforms for a purpose that students can exchange their personal lives as well as study related content. With the introduction of some internet-based services, such as BBS (Bulletin Board System), AOL (America Online), users started *real-time chat, bulletin board messaging* etc. Later on, although Facebook remained as *campus-oriented* website for Harvard University for a few years, Facebook, and LinkedIn were perceived as online business platforms rather than social networks. (Shah, 2016)

Through the time, Facebook turned into a platform where people engage with each other and share personal stuff whereas LinkedIn is now the leading business platform online with its nearly 300 million businesspeople. Initially there were independent groups for like-minded people to interact and share articles and other educational content (Walsh, 2012); however LinkedIn turned into one of the biggest EdTech platforms after the acquisition of the online education platform Lynda.com, with nearly 1.5 Billion USD (Tansey, 2015). Although LinkedIn is a significant EdTech service provider, the target group of the service is businesspeople, which is not within the scope of this study.

Introduction and massive use of mobile technologies triggered disruptive changes in the way learning content was created and distributed. Mobile technologies enabled the learning process to become more personalized; also, the learning service is provided on-demand at any-time. Paradigm shifts in the learning concepts have constantly influenced the offerings of the businesses and inspired new ways of generating revenue.

Udemy and Coursera, for example, are the most popular online learning platforms with ready content created by independent content creators. Unlike popular video sharing platforms, Udemy and Coursera have certain criteria and standards for the contents. Anyone can become a platform contributor, publish learning materials in video format, and attract audiences; moreover, the contributors can make money out of it.

On the other hand, popular video sharing platforms such as YouTube have been actively investing in Educational Technologies. Despite being the dominant video sharing platform, YouTube has been trying to *break-into* the Education Market with innovative services, according to a recent article published on Bloomberg web site (Bergen, 2022).

## **3.2 Turkish business domain**

Turkiye is home to various key sectors due to its strategic position. With its growing population and skilled manpower, Turkiye has been a strong partner with the EU for decades and a trending alternative to China in recent years.

There are pros and cons of starting up a business in Turkiye for foreigners. First of all, Turkiye is cosmopolitan in terms of lifestyles. Working with local people can be a struggle most of the time, due to the language barriers, because a very small portion of educated people can speak English fluently.

Foreign investors see Turkiye attractive because the population is dense, and consumerist culture is trending. Most of the big shopping malls are dominated by western brands, offering their products to Turkish people. Well, Turkiye is strong for leading manufacturing industries, however, when it comes to services, global firms and companies have already penetrated the market through the partnership and/or franchising model.

Turkiye became attractive to European investors during the last twenty years, equivalent to 239Billion USD. According to the statistics published by the Presidency of the Republic of Turkiye Investment Office, the majority of the foreign direct investments to Turkiye are from the Netherlands, with a portion of 15.7%. Out of the 239 billion USD foreign direct investment, nearly 55% of the funds were allocated to Financial Service and Manufacturing Industries. On the other hand, foreign funds invested in ICT Service (information, communication, technologies) constitute the 8.8% of the total funds, over the last twenty years. (invest.gov.tr, 2022)

### **3.2.1 Education in Turkiye**

Modern Turkiye, as a successor of the Ottoman Empire, acknowledged western education system as a replacement to the former education system, which was being dominated by Islamic Religious Schools called ‘madrassa’. The most fundamental shift in the education system of modern Turkiye dates back to the 1920s.

Under the leadership of Mustafa Kemal, the founder of the modern Türkiye, not only the alphabet system changed, but the entire education system also experienced a major institutional restructuring between the 1920s and 1930s. The main motivation behind those disruptive reforms was to enable Turkish people to familiarize with Western style of thinking and communicating through the adaptation of a novel education system. (Yilmaz, 2011)

Since the establishment of modern Türkiye, education has been perceived as a strategic subject by the Turkish governments. From preschool education to higher education, there are dedicated government bodies to develop and control the regulations for both public and private initiatives.

Literacy level of adults living in Türkiye is way lower than the OECD average. According to the OECD publications, the percentage of adults with the basic literacy level is 45% where the average of OECD nations is 19% as per the data published by UNDP in 2016 (OECD iLibrary, 2022).

Under Article 42 of the Turkish Constitution, any child is supposed to enroll in basic education for 12 consecutive years, including the primary and high school, called ‘compulsory education’. The average age to start formal education is 6.5 in Türkiye. Public schools are free of charge for anyone, regardless of the nationality, however, private schools have a wide range of price lists as well as a variety of the quality. Public schools are usually crowded due to the high demand, and limited resources. In addition to that, it is likely to experience a shortage of common facilities (recreational areas etc.), equipment (computers etc.) and supply (boards, desks, chairs etc.) in public schools. (Think Turkey, 2021)

The education planning system is comparatively strong in Türkiye. Türkiye owns the largest school system in Europe, with more than a million teachers, 16 million students, and 54 thousand schools (public and private together). Private schools in Türkiye represent nearly 15% of the total number of schools. Although private schools are way more costly than the public schools, in Türkiye, the average learning outcomes of the private schools are lower than the public ones. Türkiye has recently decided to improve the learning outcomes by empowering the teachers, and, therefore, encouraging teachers to focus on self-development, as well as the academic qualifications. (OECD iLibrary, 2022)



### 3.2.2 EdTech market in Turkiye

*“The increase in the total number of schools and the decreasing teacher to pupil ratio has awakened the need for digital education in Turkey.”* Governmental policies have forced Turkish EdTech business domain to undergo a radical shift in demand to and preparedness for ‘internet’ and ‘digitization’ infrastructure. The Turkish national strategy is to gradually diversify the education ecosystem over the next decade, by reducing physical classroom concepts and increasing the contribution of digital learning technologies. (Ken Research, 2019)

According to a publication by PR Newswire website (PR Newswire, 2019), Turkish EdTech market can be categorized based on type of content, format of content, source of learning, type of technology, as well as the type of end user. Ken Research study gives convincing evidence about the market share to increase between 10-14% by the end of year 2023 (Ken Research, 2019). On the other hand, ‘basis of competition’ for the edtech services is categorized: emphasis was put on the ‘cost of technology,’ ‘technological capability,’ and ‘quality of content’ (Ken Research, 2019).

On top of that, the Fatih Project, as a national educational transformation initiative, provided a good reason for EdTech service providers to grow in Turkiye, since the project aims to provide technological infrastructure to educational institutions. As complementary to the Fatih Project, private initiatives would certainly find various opportunities within the market.

In recent years, Turkiye witnessed exponential growth in the number of startups doing business in the field of Educational Technologies. According to recent statistics, there are 311 EdTech startups in Turkiye (Tracxn, 2022).

Although startups have been growing dramatically in recent years, Educational Technology concept is not new in Turkiye. Five out of top ten EdTech startups in Turkiye were established between late 1990s and early millennium. Enocta, Akampus, FundoMundo, Kunduz, IdeaE-Learning are examples of the most competitive ones for the Turkish EdTech market.

On the other hand, it is noteworthy to state that the major players are native companies but in recent years, they have attracted international funds and investors. Kunduz, which was established in 2003 acquired 5M USD funding from the mixed sources (Tracxn, 2022).

### 3.2.3 Limitations of offering educational technology services in Turkiye

Technology infrastructure is the key underlying factor limiting the offerings of the whole education system, not only educational technologies. Although the ministries have reserved big budgets for the provision of educational content along with the hardware, poor internet network coverage caused a big disruption in the accessibility of the services.

Due to the economic stagnation, people struggle to buy a computer or a tablet for their children. Sometimes only one device can be available for the use of two or more children at school age.

On the other hand, despite the fact that the Turkish government has been promoting the mega projects with the form of Build-Transfer-Operate since a decade, the network coverage is still a dramatic issue in the Eastern and South-Eastern regions. This is mainly due to the mountainous terrain of the mentioned regions; even mobile network operators cannot provide steady service coverage there.

### 3.2.4 Educational technology use cases in Turkiye

In Turkiye, preschool education starts when the child is born, and continues until the first two years of primary education. The exposure at early ages has an irreversible impact at later years on development of a child. Transition from the early childhood to primary education is critical for the perception of the children's perception of education, and Pre-school education is considered part of early childhood education. (Bekman & Gurlesel, 2005)

It is not compulsory to attend a preschool program in Turkiye, however it is commonly acknowledged that a preschool program will prepare the child for primary education. Therefore, childhood education is usually recommended in Turkiye.

- **Project 'Fatih' – The first widespread EdTech service in Turkiye**

The Project FATIH was launched in 2010 by the ruling party of The Turkish Republic that aimed to provide equal access to schooling by the use of the technology. Through the use of technology, the project aimed at realizing five main objectives: (Fatih Project, 2016)

- i. Accessibility, that all children have access to educational services.
- ii. Productivity, that all children are able to contribute and be productive.
- iii. Equality, that all users are given the equal content and curriculum.
- iv. Measurability, that the progress of all pupils is trackable for better assessment.

- v. Quality, that all the overall education quality is enhanced as a result.

Despite the enormous incentives and budget provisions from the government, the project has failed due to the high cost of the internet connection. Although the Turkish government initially granted and gradually distributed a fair number of smart tablets, over the time there have been many controversies on the physical security of the devices. Additionally, the lack of technology infrastructure in the Eastern and South-Eastern regions of the country is listed among the reasons for the failure. (Yalin, 2019)

Within this study, Service Design tools were utilized to understand the perception of the end users as well as the parents about the entire project, and the quality of the outcomes.

- **Covid-19 Effect (Project ‘EBA’)**

During the mid-2020, when the world was suffering from an unprecedented catastrophe due to the covid-19 pandemic related measures, including lockdowns, distant education swiftly became a trend in Turkiye, as well as in other countries.

At very early stages of the pandemic, a novel education system called “EBA” was introduced by the Ministry of National Education of Turkiye in order to allow students to continue with their education. EBA is the abbreviation for “Eğitim Bilişim Ağı”, which means to “Educational Technology Network” in Turkish language.

Briefly, EBA is a digital platform where the pupils can interactively participate in their regular classes online. In the same platform, teachers are equipped with the technologic hardware that can broadcast the courses in line with the curriculum. Meanwhile, pupils are allowed to ask questions to and answer the questions from the teacher via a webcam and computer screen. Likewise, teachers can quiz the pupils real time within the system. In other words, EBA was allocated to replace the school during the pandemic.

Within a short while after the commencement, and since regular education got negatively affected by the lockdown, the EBA system was massively used by millions of students and, therefore, became the ‘most clicked education portals’ globally. (Ministry of National Education of Turkiye, 2020)

The system was introduced along with an AI (artificial intelligence) based assistance that is used for responding to frequently asked questions using the novel distant education model.

The main purpose of the “EBA Assistant” was to facilitate the onboarding process of the pupils for the first-time use.

The concept of the EBA system was a strong example of public and private sector partnership, however, within this study, the perception of the students as well as the parents about the novel system is going to be discussed to find out whether the EBA was effective at the desired level and what were the factors that believed to be involved in the quality of the system’s outcome.

### **3.3 Service design thinking**

The concept of design thinking as a process implemented for decades for designing both physical and virtual products. In recent years, various organizations, and firms, including the United Nations Development Agency, started emphasizing the importance of the design thinking concept for global projects.

According to Johri (2016), without a user-centric approach, the chance to realize *the Sustainable Development Goals of the United Nations* is low. Because design thinking allows the decision makers to address complex human problems and then visualise more sustainable, yet effective solutions for the community. (Johri, 2016)

#### **3.3.1 Service design thinking methodology**

Service design thinking, as a human-centric and holistic approach, uses design principles, methods, tools, and processes in determining the needs of end users. This method assumes that the user is at the heart of the service and therefore rather than dealing with the parts, it proposes to ensure the entirety of the *user experience*. (Marquez & Downey, 2015)

According to Tim Brown of IDEO, any service has to integrate three qualities: service has to be ‘viable’ in terms of business and making money, ‘desirable’ by end-users, and ‘feasible’ under the technological circumstances. (IDEO, 2008)

*Viability*, *desirability*, and *feasibility* are the main parameters when overall quality of any design is assessed. Regardless of making a product or offering service, sustainability of any business depends on the quality of these criteria. An enterprise is *viable*, as long as it generates revenue more than its overall costs; a provision is *feasible* as far as the available technology infrastructure supports it without the need for extra technological investment; an offering is *desirable* to the extent that it fulfills certain needs of human beings.

Service design thinking, as a practice of the *design thinking* to the *service*, is a methodological approach to value, assess, and validate the overall quality of a service at any stage. In service design thinking, offerings of the organizations are considered to be available to the end users via predefined *touchpoints* (Clatworthy, 2017).

Service design thinking consists of four main steps: *Understanding*, *Ideating*, *Prototyping*, and *Reflecting*. The first question of the process is to ask, “*what is the story*”. Answers to this question will be complemented with “*how it could be different*” for the next step. Once the prototype is made available, then the answer to “*how does it feel*” is already received. Reflecting on the *feelings* about the service prototype to the real service will complete the process. (Clatworthy, 2017)

### **3.3.2 Design thinking practices for strategic marketing**

Marketing has always been about the emotions, however, long time well performed marketing strategies are being replaced by emotion intense campaigns (Kotwal, 2018). Market strategy developers have no choice to remain ignorant to the recent trends.

Traditionally, marketing was about closing the gap between the customer and the service/product offered. With the introduction of disruptive technologies, people acquired necessary tools to compare the added value of those services and products instantly and seek for the hints about the unique experience embedded within. As a natural consequence of the changes in the consumer behaviors, to not stay out of the race, marketers are supposed to include more factors and parameters when they design and develop realistic strategies.

Despite the misconception of the design thinking of being fuzzy at the beginning, it is highly useful for comprehending the problems prior to delving into the resolution (Pineda, 2020).

At this point, design thinking has much to offer to the marketing strategists. From empathizing to storytelling, a wide range of components makes the design thinking a highly practical approach to solving the problems and providing unique services (Kotwal, 2018).

Design Thinking, once applied to the service marketing, can add strategic value to the marketing practices. With the use of design thinking principles, brand experience and engagement programs of a service can be developed in a more empathetic way, which as a result increase the customer loyalty and accordingly the sales. (McVicker, 2019)

Design thinking has been applied to service industry since a while in addition to product development and marketing. Although five main pillars of design thinking (holistic approach, user centricity, co-creation, iterative progress, and visual communication (Negbenose, 2021)) are applicable to user experience design (aka UX Design) practices, to tackle the everyday problems in a systematic yet contemporary way there should be more than just UX Design.

In this context, service design thinking offers a process to develop the services with a high level of business understanding. To give examples, global brands such as GE, Samsung, and Apple have been employing design thinking principles for a long time in order to develop competitive marketing strategies for their products and services (Kotwal, 2018).

Similar to the User Experience Design process, through the use of service design tools it is likely to develop services that can deliver decent quality outcomes, as well as customized user experience to all end users (Interaction Design Foundation, 2020).

### **3.3.3 Co-Design for strategy development**

*“Developing a solution should always start with understanding a problem!”* A key to success in business is to depict a common vision for all the stakeholders.

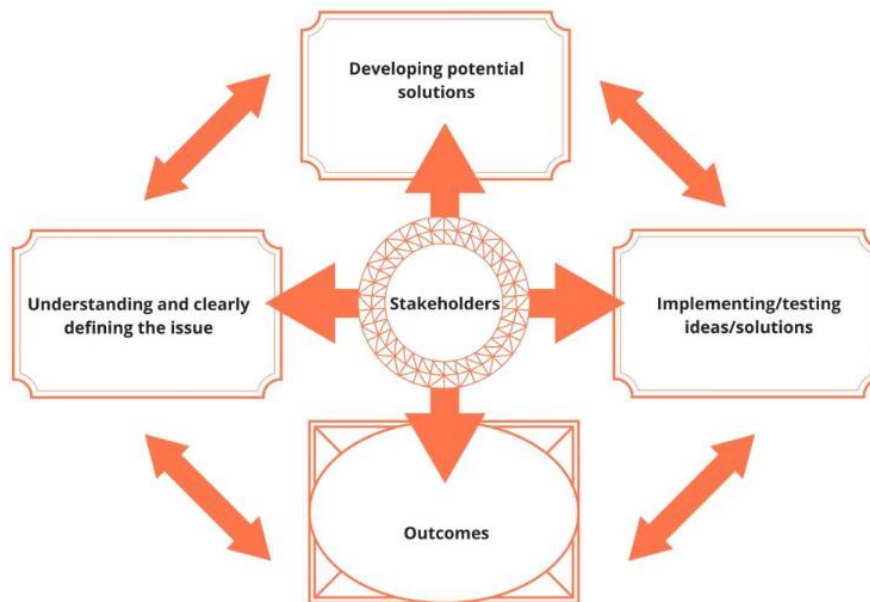
The design of a strategic plan requires a systematic approach to be inclusive as much as possible. According to an article published in Harvard Business Review (HBR) a strategic planning process shall enable and endorse the ‘communication of corporate goals’, ‘goal setting process’, and ‘external scanning’ (Lorange & Vancil, 1976).

Since then, the concepts of strategic management and strategy development have been developed and transformed into various approaches and management understandings. On the other hand, design thinking has some common features interacting with evolving strategy development approaches.

Co-design is a novel ‘mindset’ and an ‘ever-expanding movement’ that is challenging the classical ‘imbalance of power’ between the stakeholders of the organization (Beyond Sticky Notes, 2022). Co-design is gradually getting more popular and has already started being used by large organizations (Fair Deal Forum, 2016). As a participatory design tool, the main idea of co-design is to involve the key stakeholders to the critical activities of the design process.

In another article from Harvard Business Review, Kaplan and Norton emphasize the critical role of participatory behavior for developing a strategy. According to them, strategy development is not the sole duty of the executives, but also people other than planning seniors should be involved in the process of strategy development (Kaplan & Norton, 2005).

Below is a figurative illustration (Figure 4) of the way co-design position the stakeholders:



**Figure 4: Co-design process diagram (Fair Deal Forum, 2016)**

Co-design is *'to design with, not for'*. During this study it was intended to design the strategy with the contribution of the commissioner and its affiliates.

### 3.3.4 Strategic partnership for market entry

Strategic partnership, also known as strategic alliance, is defined by Ranjay Gulati as *"Voluntary arrangements between firms involving exchange sharing or co-development of products, technologies or services."*

It is an *"inter-organizational networking"* that is supervised through the specific procedures. Specific procedures hereby might include binding obligations of the parties as well as the mutual understanding of cultural norms and business practices (Windsperger et al., p. 230.)

Strategic partnership is a popular method for companies to share risks and exchange resources, where they can exploit the 'economies of scale' and create synergy and, accordingly, competitive advantages while growing the business. Partners learn and

exchange from each other the new skills, recent technologies and new knowledge that is not available to the organizations.

When entering a foreign market with insufficient knowledge about the potential threats, strategic partnership can be the most practical method of doing business.

## 4 Research Methodology

The research methodology was designed according to the Double Diamond Model of Design Council UK (DesignCouncil, 2019) so that this chapter is going to reflect the four main aspects of the above-mentioned model.

It is noteworthy to mention that, both qualitative and quantitative research methods were used to accomplish the study. In this chapter, from problem identification phase to data collection and analysis, all the methods and concepts used are defined.

In research, depending on the natural proximity to the incident taking place, data is gathered in two basic forms. If the data observed-experienced-recorded is pertinent to the incident happening, then it is called *primary data*. However, in case the data collected is not just reliable without the interpretation, then it is called *secondary data*. (Walliman, 2010)

On the other hand, data is treated from another perspective based on the characteristics of the collection, recording and analysis process. If the events are recorded with numbers in a structured form, then it is named *quantitative data*, but it is not always possible to induce meaningful information with the help of statistics, therefore *qualitative data* is also used for collecting insights, feelings, emotions, perceptions, etc. which cannot be handled via mathematics, yet there are special techniques for the analysis and interpretation of *qualitative data*. (Pickell, 2021)

In terms of qualitative data collection, throughout the research, 4 semi-structured interviews were held with the adult beneficiaries of the service rather than child users: 2 parents with children at school age, 2 teachers with the background of public and private school work experience, 1 private school manager were interviewed to introduce the overall concept of the service and collect their opinion. Interview questions are added in the Appendix A.

Also, 1 semi-structured interview was conducted with a private school owner to expedite the business potential for B2B service model. In addition to that, the business idea was discussed



with a key government stakeholder, indirectly, via a potential stakeholder, in order to understand the overall perception for the B2G approach.

On the other hand, the commissioner of this thesis was commissioning another course in relation to the master study and a separate project (with a narrower scope) was done with the commissioner. During the project work, 3 group sessions with 4 participants (master students) conducted to review the strategy of the commissioner in other regions (South America, Europe, etc.) for the similar service.

For the commissioner's case, since the service is targeting early childhood literacy development, the natural user of the service is the child, the beneficiaries of the service are parents, teachers, private school managers, as well as children. However, as the research did not aim to develop the product/service rather to focus on the strategic expansion and marketing plan, no primary data was collected from the children.

## **4.1 Discovering the challenge**

Penetrating a foreign market with EdTech services is highly challenging due to challenges while localizing. Especially when a firm (Grapho Group Oy as the Commissioner) with limited knowledge about the target market as well as insufficient resources for development and sales & marketing activities, things become much more complicated. Moreover, there might be other limitations that need to be discovered in addition to the competition.

This research was aiming to discover those limitations as well as the extent of the competition for the Turkish EdTech market. The methods that are utilized within this study will be introduced in this chapter.

### **4.1.1 Stakeholder Interview**

Interview is a qualitative data collection method where the person-to-person dialogues between the interviewed and the interviewee can be both structured and semi-structured. In a structured interview, the questions and the answers are predefined, and the sequence of the questions does not change based on the responses from the interviewee; however, questions might vary depending on the answers of the interviewee in the semi-structured form. (Kabir, 2016)

Stakeholder refers to a *specific group of people or individuals with an interest* in an organization, according to the Investopedia web site. Although the *primary stakeholders* are

the investors, customers, suppliers, and employees, the concept has evolved to include the other entities such as public authorities, business communities, trade organizations etc. over the time. (Fernando, 2022)

Depending on the context, interviewing a stakeholder, enables the interviewer (researcher) to discover the influence and interest of the stakeholder. Stakeholders can be high ranking people as well as anyone who depends on the success of the proposed services. Anyone involved and interested in an occasion, or a specific project can be named as stakeholder.

When it is used in the business context, a stakeholder interview can provide useful inputs for the researcher. A stakeholder interview can be best when the initial goals are defined prior to the interview. Even though in the semi-structured form, stakeholder interviews enable to collect data about the context and the background of the business, to identify *business goals*, and consequently to align with the *shared vision*. (Gibbons, 2022)

In the business context, a stakeholder interview has certain benefits. Since it requires identifying business goals in advance, it enables the researcher to lead the interview and seek for the particular outcomes. Therefore, it nurtures the dedication of the stakeholders to the respected project. (Pouilly, 2020)

#### **4.1.2 SWOT analysis**

SWOT stands for “*Strengths, Weaknesses, Opportunities, and Threats: a way of considering all the good and bad features of a business situation or a company*” according to the Cambridge Dictionary online (Cambridge Dictionary, 2022).

The SWOT analysis was initially developed to support decision makers to test ‘risky assumptions and highlight ‘blind spots.’ Outcomes of a SWOT analysis can be used for drafting a business strategy. (Mind Tools, 2022)

Organizations nowadays use SWOT analysis for various purposes. Some organizations use it to assess the situation of organizational preparedness for future changes whereas others use it to develop business strategies. For marketing strategy development, a SWOT analysis can be helpful once used along with a Business Model Canvas.

## 4.2 Defining the needs

### 4.2.1 System mapping method – stakeholder map and ecosystem map

System mapping is a widely used term within the service design thinking literature. System maps visualize and illustrate the key elements of any system, which can be an organization or a service/product. Principally, with this method, the systems are scanned to exhibit the current state which is called “as-is”; but it can also be used to depict the future states as “to be”. (Stickdorn, Hormess, Lawrence, & Schneider, 2018)

- **Stakeholder map**

Stakeholder identification is a key practice of strategic business management. In this process the ‘interests’ and the ‘influence’ of the related parties, in other words, stakeholders are examined. Stakeholder is a term used to identify a group or individual with a benefit or an involvement in the management and/or regular activities of a business organization (CMI, 2014).

For a business organization, stakeholders might have a wide range of benefits from and the impact on the business activities. To identify the risks and develop strategies in mitigating the identified risks, stakeholder analysis plays a significant role.

Prior to a stakeholder analysis, an organization might identify its ‘key stakeholders’, and then try to assess the areas of interest for each key stakeholder against their ‘contribution’ to or influence on the future of the organization. (CMI, 2014)

The stakeholder map, one of the most popular tools used for analyzing the stakeholders, is an effective tool to understand the involved parties within a system as well as an organization. There are several ways of visualizing the stakeholders, such as diagrams and charts. Visualizing the key stakeholders, according to a power/interest matrix or grid, can help the decision makers to prioritize the stakeholders based on their participation level, and to categorize the stakeholders according to their influence and power on the organization. (Smith, 2000)

- **Ecosystem map**

According to an article posted on Investopedia web site, ecosystem has a specific meaning in the business. A Business Ecosystem consists of certain entities such as *suppliers, clients, partners, regulating bodies, other players*, that interact closely for delivering a predefined

service and/or product. The interaction within the related parties can be both *competition* and *cooperation*. (Hayes & Boyle, 2021)

The term ecosystem was invented by a botanist in *1930s* to describe the reciprocity of the various organisms between each other as well as their relationship with the natural substances, compounds, and bodies such as *air, water, earth*. (Hayes & Boyle, 2021)

A business ecosystem has a different meaning than the natural ecosystems: *independent economic actors* generate value for each other in a business ecosystem. Despite the recent popularity, the business ecosystem, as the concept, is older than it is thought to be. During the 14<sup>th</sup> century, the early examples of a business ecosystem existed in Italy, where the textile industry provided end-to-end production facilities. However, in contemporary times, business ecosystems are mainly reliant on digital technologies. (Pidun, Reeves, & Schüssler, 2019)

An ecosystem map is an illustrative way of demonstrating the link between the system elements. Ecosystem maps are used for analyzing the relationship of the actors consisting of a system. Global companies such as Adidas, have been using the ecosystem mapping tool to analyze their position in the market, and to expedite its value proposition with the other actors. (Kawohl & Krechting, 2020)

Ecosystem Map is an extended version of the stakeholder map; it is derived from the stakeholder map by adding certain more entities such as ‘channels’, ‘platforms’, ‘machines’ etc. When it is used along with the stakeholder map, it can help the decision maker to unearth the critical factors and enablers that cannot be seen with a superficial examination. (TiSDD, 2022)

In an ecosystem, all the bodies, parties, entities, and elements are positioned to complement the system entirety in a way to drive the best experience for the end users. (Interaction Design Foundation, 2022).

#### **4.2.2 Co-design methods**

Emerging design practices are evolving around societal needs, and consequently changing the way of traditional design habits. In classical approaches, theory comes first; then insights are consolidated and analyzed to produce a report. (Sanders & Stappers, 2008)

Contrary to the traditional design approaches, in co-design, all the tools are in place to be utilized simultaneously during the early phases. For this research, co-design methods were used to determine the market needs, and further define the strategic priorities. The researcher has actively communicated with both the commissioner and the potential target groups from Turkey to maximize the collaboration throughout the process.

### **4.3 Developing the business model**

The research aims to develop a strategic plan for market penetration. The strategic plan is supposed to include recommendation of a best-fit business model for foreign market entry, a unique communication strategy for the target customer groups, a smart pricing strategy for certain product types, and an estimation of sales & marketing budget for the local operations.

#### **4.3.1 Business model canvas method**

This is a strategic management tool/template that was developed and introduced in 2005 for the first time. The aim and use of this tool is to scan an existing business from different perspectives and illustrate the strategic link between the aspects of the business (Strategyzer, 2014).

To understand the impact of numerous factors on business, as well as customer and employee, this method and other canvases are regularly used. This model can also be used as part of the benchmarking method while learning about their own business model and exploring the model of competitors. (Stickdorn, Hormess, Lawrence, & Schneider, 2018)

Business model canvas is used for conceptualizing the aspects of the aimed business model for the edtech services provision within the Turkish business domain.

#### **4.3.2 Benchmarking method**

Benchmarking is used for describing the comparison of selected products, services, and processes against some others, that are believed to be *best practices* or *better practices*; It is a way to understand how the *best people* and *best organizations* do it. (Patterson, 1995)

As a business practice, benchmarking encourages the business leaders to improve the current practices by determining and understanding the factors that allowed the leading organizations in the same sector to perform better. (Watson, 1994)

Benchmarking is a process that can be defined by certain steps. As the first step, one shall determine *what to benchmark* and then identify *whom the benchmark is*. In the next step, it is needed to understand one's own processes, before exploring how others do it. Once the processes are defined, the differences between the parties have to be identified and recorded in a systematic way to finalize the benchmarking. (Tuominen, 2016)

In this study, the services provided by the commissioner in other regions are benchmarked to find out the differences in relation with the target persona profiles.

### **4.3.3 The Persona method**

The Persona Method is used for determining the needs of the targeted entities through the profiled stereotypes and/or characters. Personas are fictional stereotypes; however, they help the service designer to understand the profiles of *beneficiaries* and empathize with them.

A representative portrait image, a symbolic name reflecting the social and cultural background, demographic information such as age and gender, a simple quote/saying to describe the daily routine, images demonstrating the overall personality, description of the specific challenges, and statistics summarizing the relevant information, are essential parts of a persona card. (Stickdorn, Hormess, Lawrence, & Schneider, 2018)

Although usually the end user is the target persona for edtech services, for the commissioner's case, the persona can be more than the end user profile. This research was designed with the aim to conclude with at least two personas for the respected services.

## **5 Assessment of the Turkish Market for EdTech Service**

### **5.1 Analysis**

#### **5.1.1 Stakeholder interviews**

A couple of stakeholder interviews were conducted with the potential local strategic partners. For the sake of the commissioner's case, potential strategic partners were considered as the key stakeholders.

A series of interviews was conducted with the below listed stakeholders. It is noteworthy to mention that each of the interviews were done by phone call whereas some done via video conference.

- **An Academic – from Education sector**

Professor Turgay, 65, working in the field of foreign language translation studies. Initially, Turgay was contacted to be an adviser for the commissioner's intended business venture. Turgay is a former academic who works as a freelance consultant, with a strong network of research centers. The idea was to hire his services during the process of content localization.

According to the literature review, it was concluded that educational technologies have to have localized content in order to become successful while adapted to a remote culture (Goel, 2018). However, content localization is more than literal translation; rather it requires a proper organization of efforts as well as certain preliminary analysis.

Three virtual meetings were organized between the commissioner and Turgay to interview him and discuss the scope of the content localization. He was given a brief about the intended services initially; later he was asked to have an assessment to compare the commissioner's service with the existing service available in the local market. His overall impression for the intended service was good. However, he was mainly interested in the complexity of the content of the service rather than the business model itself. He mentioned that the content of service has to be redesigned along with a team of experts dedicated to the intended service, otherwise the service would be ineffective against the desired outcomes.

At later stages, he was asked to contact freelancer experts from his academic network and form a team of experts in case content localization required. Turgay was also asked to prepare a time plan including a budgetary estimation for the intended service localization, and to share with the commissioner. From his initial report, it was realized that at least 3-6 months would be needed to undertake certain tasks.

- **A Senior Business Owner – EdTech Sector**

A senior business owner active within the learning technologies sector, Ufuk, 61, was initially attracted with the intention to result in a business partnership for the local operations. The form of the intended partnership was to be either a joint venture to bid for the public tenders or to be a revenue share from the local sales.

As a businessman within the field since the 1990s, he has been developing both educational content and digital learning management platforms. His company already developed a unique 'authoring' tool for commercial uses. Although his strategic priority is to market his own content, he was open to the idea of importing an EdTech service from Finland.

There have been several virtual meetings with Ufuk, to discuss and co-develop the business plan as well as the operation plan. Initially, Ufuk demonstrated a strong level of communication during the video conferences. Also, the commissioner was astonished by the interest of Ufuk to the initial business idea as well as the partnership models discussed.

The communication between Ufuk and the commissioner, which was done via the facilitation of the researchers, was sort of a search for potential partnership to localize the content and organize the sales and marketing activities, in return of a revenue share model. For the sake of this research, he has been requested to comment on the questions directed by the researcher.

The business model and the intellectual properties were the main concern of Ufuk; according to Ufuk any foreigner EdTech companies aiming to enter the Turkish market shall have strong local representation as well as the customized content. He was clear that in order to make an EdTech business venture successful in Turkiye, the service shall put the B2G business model in its core. Hereby, in order for the intended service to realize bulk sales, Ufuk believes that the commissioner has no choice other than having a local partner with strong relations to the government institutions. However, the real conflict was about the intellectual property rights where the commissioner was hesitant to transfer the IPRs to a local company although the content was going to be localized.

- **An EdTech Startup Owner**

The third interview was conducted with a business owner offering services and products for child education. The firm owner, Ibrahim, 39, a former banking professional, established his business in 2017. His business is developing childhood educational video games and mobile apps.

During the phone interview, he emphasized that the intended service is unique to the Turkish EdTech market, however, the intellectual properties' ownership is a serious issue. To have a successful business venture, the commissioner must localize and customize the content possibly with a local partner, and once the content is localized with a local firm, then the IPRs might not be owned by the commissioner solely.

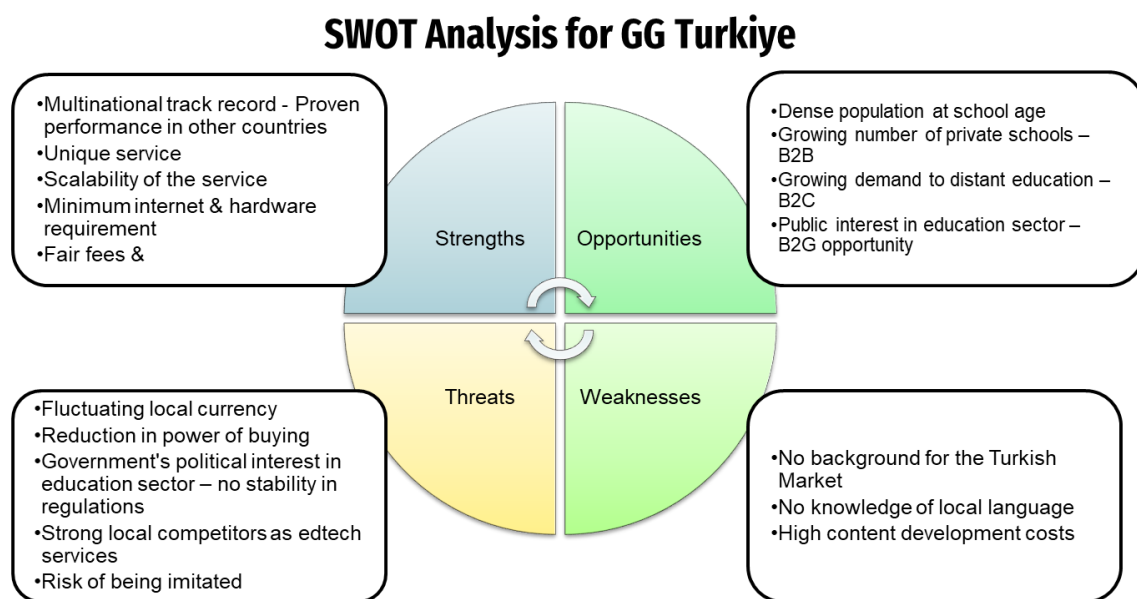
On the other hand, the content localization cost was highlighted as one of the key issues. According to Ibrahim, content development costs can be optimized if the commissioner agrees to localize the content development process instead of Finland. Well, the main point of Ibrahim was the currency issue, which affects the cost of the content development.



To conclude, IPRs and the initial investment costs related decisions have to be carefully determined for the success of the market entry. Despite the idea being very attractive, Ibrahim was hesitant to join such a partnership with the commissioner and to become a part of the business development activities further.

### 5.1.2 SWOT Analysis Findings

As part of the research a SWOT analysis was conducted, based on the assumption that the commissioner vision is to grow the business in Turkish market, and become one of the most popular educational technology platforms within 2-3 years.



The SWOT Analysis results are important in developing a strategy. To avoid the threats, an organization shall be aware of and try to eliminate its weaknesses; likewise, to grab the opportunity, an organization has to utilize its strengths.

Turkish EdTech market promises a niche market due to the crowded population at the age of primary. The central government is the biggest buyer of EdTech services, not only for educational institutions but also for other huge organizations such as Red Crescent. Considering the track record of the commissioner in Brazil, convincing Turkish authorities to use the services for primary schools is highly possible.

Pricing of the service is a factor for the B2C customers, as they can only compare the service with other services available for them. The commissioner's initial strategy can be to enter the market by either B2G customers or B2Bs. Once a sales agreement is secured with either of those, B2C prices can be set to the market low, in order to be attractive.

On the other hand, the commissioner does not have any experience in the target region, nor has any partnerships there. Another drawback is the content development and content localization costs for the commissioner. It is not a secret that digital content creating costs are high in Europe in comparison to Turkiye. Hereby, developing the customized content in Finland and marketing it in Turkiye is not feasible from the cost perspective. But with a strategic partnership with a local company, including an exclusive agreement for IPRs, the commissioner can reduce the content development cost to an acceptable margin. The local currency in Turkiye has lost significant value during the last five years, and the power of buying also declined. The currency will not be an issue in the long run but for a startup it is one of the most significant factors that has to be taken into consideration.

Another threat for the commissioner is the risk of being replicated by local EdTech providers, after a while. The Turkish business domain is highly competitive, and the regulations for fair competition are not that much inclusive to protect the digital service brands. This point has to be carefully discussed with a potential local partner and/or with a local lawyer prior to the decision of market entry. The risk of being imitated can be more visible while the commissioner decides to undertake some of the content development operations inside Turkiye. Therefore, IPRs and patents have to be carefully assessed as part of the process.

### **5.1.3 Benchmarking findings**

Commissioner has previously exported its services to other countries overseas. GG Brazil is benchmarked for the sake of this research since both countries have some key similarities.

First of all, both Brazil and Turkiye are highly dense in terms of population. Below is a list for some key insights that to compare the key figures for both countries:

- GDP per Capita: 8,914.17 USD for Brazil (Statista, 2021) and 9,527.68 USD for Turkiye (Statista, 2021),
- Unemployment Rate: 13.4% for Brazil (Statista, 2021) and 13.34% for Turkiye (Statista, 2021),
- Birth Rate: 13.46% for Brazil and 15.53% for Turkiye (WorldData, 2022),
- Age Structure: (0-14 years): 20.45% for Brazil (Statista, 2021) and 23.57% for Turkiye (Statista, 2021),

- Political Stability: thirty-seven out of one hundred for Brazil and thirty-four out of one hundred for Turkiye (WorldData, 2022)

On top of all the statistics presented above, access to quality education is an issue in both countries. In the light of these facts, it is fair to emphasize the commissioner's previous performance in Brazil as a benchmark for Turkiye.

The foremost fact is that the commissioner's product/service became popular within a short time in Brazil. The Commissioner entered the Brazilian market along with a local partner and they signed a big deal with the Ministry of Education of Brazil for the distribution of the product/service free of charge to end users. Content development task was undertaken by a local academic institution under the supervision of the commissioner, and the project has been funded by the central government of Brazil.

The service is acknowledged as part of the national education system in Brazil. It is stated on the official web site of Brazilian Government that "*As part of the Brazilian government's National Literacy Policy, the Ministry of Education now uses GraphoGame, and educational app based on scientific evidence to develop pre-schoolers' and early elementary students' cognitive capacity* (Government of Brazil, 2022)." The service is considered as a tool to assist both teachers and families during the early literacy development of the children.

During the covid-19 pandemic, the service experienced a tremendous demand for its services in Brazil, since the schools were closed, and families were concerned about the educational development of their children. Though, it was challenging for schoolteachers to monitor the students' performance while they are away from the physical classroom. To conclude, the service was offered at the right place at the right time, matching the criteria that to be 'desirable' from the design thinking perspective.

To benchmark Brazil case for the Turkish market, it cannot be anticipated to experience the same case as the Covid-19 pandemic has already ended, but the fact is that the service has proven its ability and, therefore, can be used as a reference for the market penetration. Moreover, there is a fair number of academic studies stating the marginal value added by the use of the commissioner's service in Brazil as an educational technology tool to supplement underage education.

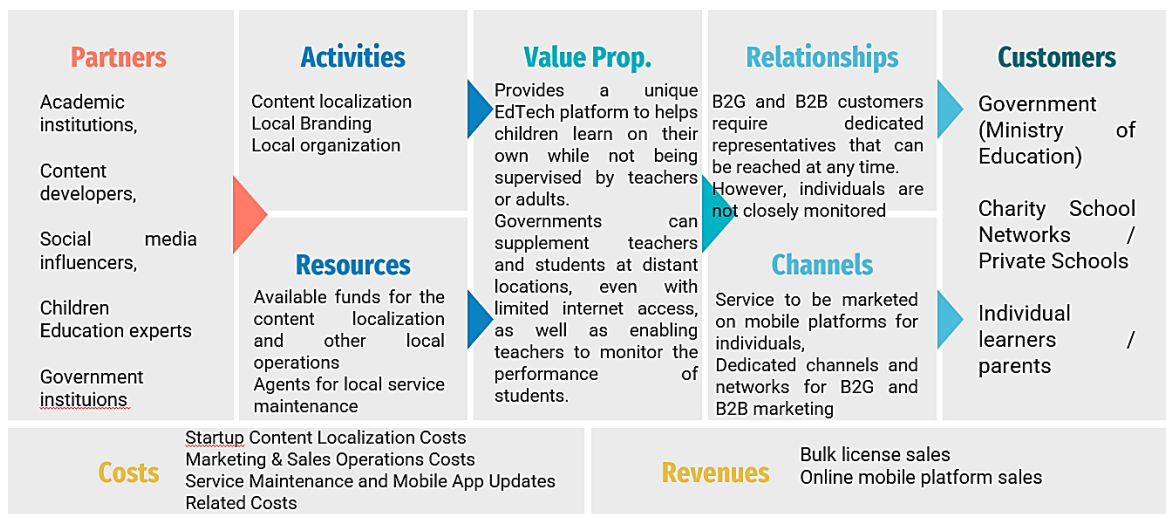
## 5.2 Deliverables

This research was designed with the motivation to propose a realistic and feasible strategy to the commissioner through the delivery of tangible outcomes. As stated in the introduction chapter, the aim of this research is not only to result with at least a feasible market entry strategy for the commissioner's case, but also to deliver significant contributions where the commissioner can refer to while making a strategic decision whether to enter the Turkish market.

In that regard, a number of the deliverables were produced throughout the research. Each of the deliverable is complementary for the other one, and they should be considered as a set for analysis purposes.

### 5.2.1 Business model canvas

Business model canvas is the basic deliverable to comprehend a master plan for the intended business activities in Turkiye.



**Figure 5: Business Model Canvas for GG Turkiye**

As depicted in the Business Model Canvas, the value proposition of the service is to provide a unique platform for supporting literacy development through gamification. Resources and activities can be organized based on the final strategy of the commissioner.

The main revenue streams are assumed to be sales from bulk licensing as well as the individual sales on relevant platforms. Bulk licensing can be both Business to Government (B2G) and Business to Business (B2B) sales. As the main sales and marketing strategy,

similar to the Brazil case, bulk licensing would provide the commissioner an opportunity to finance the further research and content improvement activities.

In the B2G license, a basic package of the service to be offered without any additional features, and the service can be set to work off-line on mobile devices enabling up to a certain number of different users to login on the same device. However, B2B packages will include additional features such as a dashboard for teachers and parents to track pupil's performance. Also, the content of the service will be customized according to the needs of the B2B customers.

On the other side, the value proposed for B2C customers is going to be more about self-learning. With the assumption that the families are looking for digital learning activities for their children to spend quality time even unattended, the service will offer the child a good learning opportunity in the form of a video game.

The main cost factors for the entire service comes from the content creation and localization, startup related expenses, mobile app maintenance, and marketing related costs. Out of the listed items, the biggest portion goes to the content localization related tasks.

Although it is not mentioned in the Business Model Canvas, to highlight another value proposition of the service is that it can be used for assessing the literacy level of the pupils. According to the statement of the commissioner, in France, the service is acknowledged as part of the national language proficiency assessment tools for primary school students. Once the strategy for bulk licensing proves its effectiveness, the service will be recognized as a literacy level assessment tool in Turkiye as well. Likewise, it can be used as an assessment tool for the native language competency development of the pupils nationwide.

### **5.2.2 Personas**

A natural persona for an edtech service is usually assumed to be the end user. This assumption is valid where the targeted end user for the proposed service is an adult. However, if the proposed EdTech service is designated for underage persons, then more than one category of the persona is considered.

Through this research, a series of workshops were conducted with potential local partners for the commissioner's case. As a result of the workshop series, four different types of personas were concluded as a result of co-development workshops conducted with the commissioner.

- **First persona:**

## Adem Hodja

### Demographics

Adem,  
41 years old  
School teacher  
Lives in Eastern region of Turkiye



### Behaviors & Habits

He takes care of the students as if they are his children.

Time to time, he shows educative videos from his tablet or personal computer to students,

He plays video games with them.

### Pain Points & Frustrations

Main struggle is with the physical infrastructure of the school building,  
Internet is an issue at where he lives, so he has limited access to online sources for creating unique content for students, also there is not enough number of PCs inside the school,  
He has to accommodate all 5 grades within the same classroom due to the

### Needs & Goals

He needs to have some educational materials ready to show students whenever needed, rather than struggling to find content online,

He needs to have technology support for the grade 1 students where he can maximize the use of contact study time, as he is the only teacher at school.

**Figure 6: First Persona – Adem Hodja**

Adem Hodja is a schoolteacher at a public primary educational institution in a distant rural area located at the eastern region of the Turkiye. The physical conditions and circumstances of the school building forces Adem to combine grade 1 to grade 5 into the same classroom, therefore, he is assigned to teach the curriculums of all the grades in the same room, due to the lack of facilities.

One of the main challenges of Adem is that the students have limited access to the internet due to the infrastructure issues. Addition to that, there are a few PCs in the school. He needs to organize the study time to maximize the efficiency of the contact study hours. Homework assignments are a serious matter for him as the students lack equipment and internet access.

On the other hand, Adem is responsible for the literacy development of the students, as he is the only teacher at school. However, if he had a tool that can help him dealing with fresh students (grade 1), at least to let the students practice the fundamentals (such as recognizing the letters, sounds, syllables etc.) even if the students are not attended by teacher, he could have allocated his time to deal with other students to teach them the curriculum.

- **Second persona: Bahar**

## Bahar

### Demographics

Bahar is a 7 years old girl  
Studying the first grade,  
Living in a city at the central  
region of Turkiye



### Behaviors & Habits

She is addicted to watch videos and play video games.

She doesn't play much with her toys, rather she mingle with her mothers mobile phone most of the time.

She likes baking with her mom,

### Pain Points & Frustrations

She cannot communicate properly with her friends,  
She cannot read and write properly although she is attending to the primary school,  
Her mothers is not able to deal with her for practicing the homework assignments

### Needs & Goals

She has to reduce the time she spend for watching videos online,  
She has to be given some motivation as well as the appropriate tools to spend time for literacy development,  
She needs to be able to practice how to read and write even not being attended by an adult.

**Figure 7: Second Persona - Bahar**

Bahar is a 7-year-old girl living in the central region of the country, and she is attending a public primary school in her neighborhood, where the classrooms are highly crowded. She struggles to catch-up with the study program, due to the density of the curriculum. Her homework assignments are challenging, most of the time she asks for support from her elder siblings to complete the tasks. Although she has a fair internet connection at home, she needs guidance from adults to reach the appropriate educational material on the web to supplement her study. However, there were a couple of issues with the digital materials available on the web.

Bahar is an intelligent girl, a quick learner, but on the other hand she is addicted to videos on social platforms like her elder siblings. As she is studying in grade 1 at primary school, she is expected to develop literacy skills. Her mother is usually busy with housekeeping, and she cannot spend enough time with Bahar to train her on how to improve her literacy skills. Moreover, her mother is not able to monitor Bahar in what she watches online most of the time. Similar to her classmates, Bahar is also late in reading and writing in her native language because their teacher is not able to deal with the students one by one. Rather they would have made it better if there was an attractive way of practicing the literacy skills on their own, even half an hour a day.

- **Third persona: Kubra Hanim**

## Kubra Hanim

### Demographics

Kubra is 38 years old  
mother of 2  
Working as customer  
representative for a private  
company, hybrid work pattern.  
Living in Istanbul, the busiest city  
of Turkiye



### Behaviors & Habits

She has a balanced life, never goes out of home without having breakfast, even the children are joining her. She used to drop kids to school with her private car, however during the pandemic pattern a bit changed. Hybrid/flexible work model is the best fit for her life expectation, so she can reserve some time for personal development.

### Pain Points & Frustrations

She is usually busy for her work even while working remotely at home; also wants to take care of the children's education. She tried many education tools and techniques to improve the overall level of her children. Sometimes facing issues in reaching out quality material and content. She was planning to quit her job, and concentrate on the education of children, but need to sustain an income too.

### Needs & Goals

She wants her children to have good reading habits, also she want them to learn foreign language.

She need a smart tool to support children's educational development, especially to track their performance.

**Figure 8: Third Persona - Kubra Hanim**

Kubra, mother of two and 38 years-old, is living in Istanbul, the biggest city of Turkiye. She used to work for a company before the Covid-19 pandemic; she started working from home during the covid-19 pandemic. When she started working from her home, she also spent more time with her underaged children, since they were required to study remotely. By the time, Kubra Hanim began realizing that she is not capable enough to guide and support her underaged children for their homework. Especially her 6 years old son with reading difficulties makes her highly concerned. Kubra knows that once the pandemic ends, she will return back to work at office, however, her concerns about the education of children will not end even though children return to contact studies.

On the other hand, Kubra is conscious enough to guess the negative effect of the conventional video sharing platforms of the youngsters. Even adults are highly prone to addictions, so children are more vulnerable to the risk; so, she doesn't want her children to get exposed to those platforms when searching for supplementary educational materials.

Kubra is aware of the need to utilize the technology for the development of her children; therefore, she actively searches for digital education tools. Her profile is a good match for the services intended to be offered by the commissioner.



- **Fourth persona: Hasan Bey**

## Hasan Bey

### Demographics

Hasan, 52, is the CEO of a charter schools network,

Living in Istanbul, the busiest city of Turkiye.



### Behaviors & Habits

He travels frequently, He likes technology,  
He does not miss to attend relevant exhibitions and fairs  
He closely monitors the recent developments in education field,

### Pain Points & Frustrations

Hasan is not satisfied the quality of the education in Turkiye,  
Quality content is a serious matter for him however he is highly concerned about the teachers competency too.  
Due to the high competition he cannot retain the experienced teachers,  
Also he is not satisfied with the current technology level for his organization.

### Needs & Goals

He needs to improve the organization and support the system with the modern technologies, in order to reduce the dependency on persons,  
He wants to make strategic partnership with foreigner technology service providers to tailor solution for his organization, Finland is a good option due to the strong reputation in Education field.

**Figure 9: Fourth Persona - Hasan Bey**

Hasan Bey, 52, lives in Istanbul, is the CEO of a charity school network. Although he has a professional career in business, he is managing a big network of educational institutions.

Hasan Bey travels frequently to visit their charity schools all around Turkiye, he meets many people during his business trips. He is interested in technology; he never misses any exhibitions and technology events happening in the field of education. As part of their corporate business strategies and policies, he wants to upgrade the technology level of their charity network, but he is concerned about the investment cost. He has convinced the Board of Directors to pilot and implement a couple of projects related to educational technologies.

Although the local currency is highly fluctuating, he is open to importing an EdTech service and leads for the localization of the services. Hasan is sort of a nationalist in terms of world view, he has a personal mission to contribute to the literacy development of childhood. Hasan believes that children with advanced reading and writing skills would be superior to other children at later periods in their lives. With this vision, Hasan has the motivation to try new technologies to improve the overall educational quality for their network.

One of the key aspects that Hasan looks for in an EdTech service is the capability of customization. Since he is leading a charity school network at a wide range of locations, they

want to customize the service according to their needs. A Service provider has to be capable of answering to their specific request at a wider scope. To give an example, the system might be required to provide a dashboard for tracking the performance of the students; that feature would be helpful when conducting feedback sessions with parents about the performance of the pupils.

Private schools are a reality in Turkiye; due to poor education quality and insufficient infrastructure provided at the public schools, families with a certain level of income choose private schools to enroll their children. Hasan's persona is a stereotype representing the needs and expectations of private schools in terms of EdTech services. From that angle, Hasan is an attractive persona for commissioner's B2B operations. It is important to mention that the persona was initially discussed during the exploratory talks with potential local partners.

### 5.2.3 Stakeholders map

For this study a stakeholder's map would have much to offer however, as the time being, due to the lack of communication with the commissioner during the research, only a few of them have been identified and examined.

## Stakeholder Map for GG Turkiye

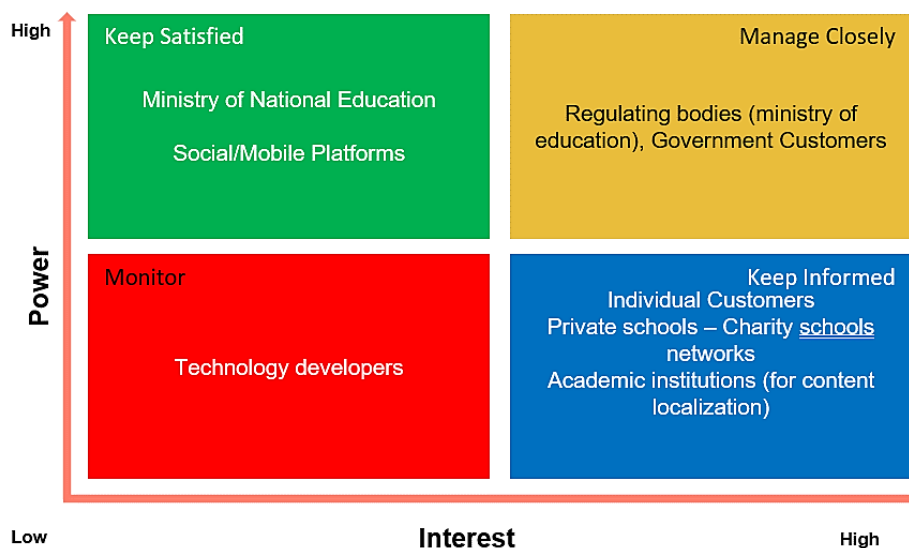
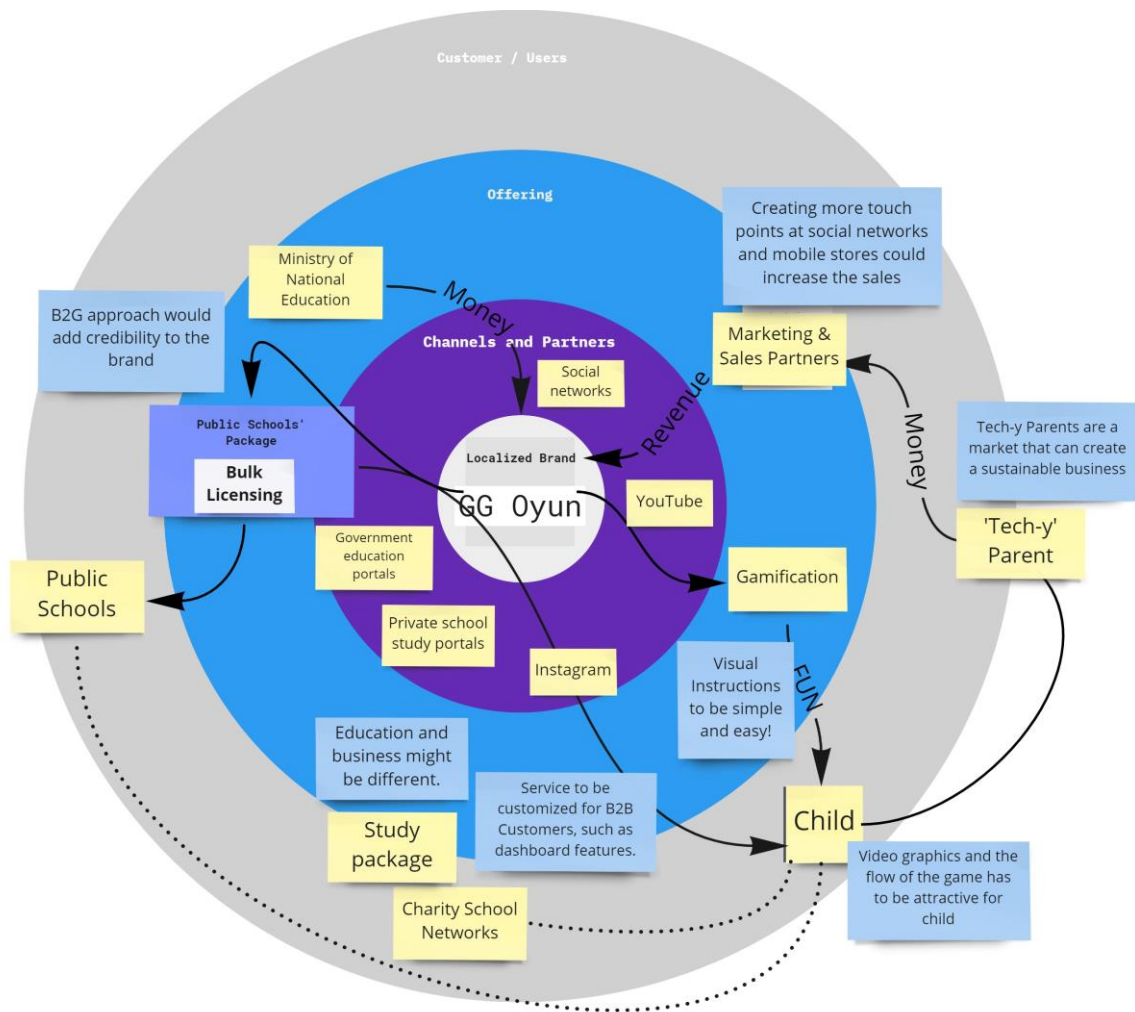


Figure 10: Stakeholders Map for GG (GraphoGame) Turkiye

### 5.2.4 Ecosystem map

The Turkish Education Ecosystem is highly diverse. The Central Government is the key actor and is dominating the education. Ministry of National Education regulates the education operations in Turkiye in addition to managing the overall governance of the public schools all around the country. On the other hand, private schools and charity school networks are consisting of a significant portion of the education networks.



**Figure 11: Ecosystem Map for GG Turkiye**

The ecosystem map gives a clear picture of how the systems interplay through the journey. The localized brand of commissioner is projected to have close contact with the public authorities and the private sector. On the other hand, marketing and sales partners play a strategic role for the individual sales operations.

As demonstrated in Figure 9, revenue flow can be either directly from the client (bulk licensing - B2G and B2B) or through the sales and marketing partners (B2C), such as mobile platforms since the commissioner will be obliged to offer the service via dedicated channels.

### **5.3 Business model and market strategy suggestion**

Startups are highly popular in Turkiye, and they become much more popular day by day. Educational Technology business as a startup is an effective way to enter the Turkish market. To be able to establish a startup in Turkiye, the first thing is to form a legal entity. However, to be strategic, a strong local partner is highly recommended to enable commercial trust in the business domain.

First of all, the business model suggested for the Turkish EdTech market is the 'Revenue Share' model where each partner gets a certain amount based on the mutual agreements, from the local sales.

Second, the local partner has to be someone with a relevant business background to the edtech products and services. Otherwise, no added value can be expected from the local partner in terms of localizing the content and accessing the potential clients.

Third, there will be some content localization in order to penetrate the local market. The costs associated with localization of the product/services are to be shared with the potential local partner. Likewise, the budget for the product/service initial release in Turkiye to be estimated along with the local partner, and future costs associated with the product release and maintenance to be addressed to the local partner in return for a fair agreement. It has to be kept in mind that labor cost in Turkiye is under the average of EU business domain, and, therefore, some key cost items are better to be sourced from the local suppliers, so the pricing strategy has to be defined in line with the local market facts.

#### **5.3.1 Practicality**

First of all, when entering the Turkish market, an EdTech company might perform best with a local partner. Even though foreign businesses are highly welcome in Turkiye, there are numerous practical benefits of having someone native and existing in the market.

Having a local partner does not mean that you can bypass paperwork or other formalities for registering a business in Turkiye, rather it is a type of risk management. In addition to that, sales and marketing costs can be best managed with a local partner, who already has a business network.

On the other hand, local culture(s) is a serious topic when we talk about more than eighty million people. Content localization and brand management activities need to be co-designed

with the local partner, so that the commissioner can reduce the risk of failure. Also, local presence will require to move people to Turkiye or recruit locals; however, local partnership is a very effective model instead of trying to establish a business organization at a distant business domain.

### **5.3.2 Content localization**

Content localization is the key issue for the commissioner's services. In the commissioner's case, a fair amount of the content localization is required to develop dedicated content to the local needs as a result of research.

Since the intention of the commissioner was to adapt and localize GraphoGame, despite the backbone of the GraphoGame is already built for the previous forms of the service (such as GraphoGame Brazil), the commissioner is supposed to be able to quickly adapt its product/service to Turkish language as soon as the initial content is ready to implement. Instead of reconstructing the backbone from the scratch, modifying the available structure based on the defined needs would be more feasible economically.

According to the several meetings held with the parties, the main cost items for the entire project were defined as below:

- Academic research (Turkiye)
- Academic validation (Finland)
- Data Insertion (the Turkish words)
- Voice Dubbing (in Turkish)
- Graphic Design (in case needed for Turkish)

Collaborating with a local partner can be challenging as much as being productive. However, the marginal benefit of partnership is that the market penetration would be easier than ordinary startup operations if the local partner has a strong network and quality clients.

### **5.3.3 Distribution plan for the startup**

As an outcome of the unstructured co-creation workshops virtually held with different stakeholders, it was concluded that the distribution (sales and marketing) of the services is one of the major issues, in addition to the content localization. Sales and marketing

operations have to be simultaneously planned along with the research and development activities (localized content creation phase). To reach out to the target clients, a sturdy marketing and distribution plan has to be in place once the service is ready to be announced.

An EdTech startup with no reputation in Turkiye cannot attract big networks. The option to liaise with one or more strong local partner(s) would be much more feasible as the resources of the commissioner are limited. For the commissioner's case, the local partner(s) will be responsible for the sales and marketing operations initially. With a strong collaboration of the local partner(s), commissioner can engage with all the three categories of the target customers:

**B2G:** Government is the biggest educational service provider as much as being the regulator. It can be the most strategic client for the commissioner; bulk licensing is the potential solution for public schools. Any user with the enrollment to public schools can be granted free access to the service.

**B2B:** Private schools are a reality of Turkiye and are the main target for business-to-business sales operations. Although it requires customized services, such as content enrichment and additional features (e.g., dashboards for teachers), B2B sales can be the most profitable operations since the unit price is going to be defined based on the added value.

**B2C:** Individual users are not the most profitable ones, because there has to be initial investments for marketing activities. However, parents might be interested in purchasing the service, and download the app from the mobile store. Therefore, to satisfy the demand, the B2C option has to be available.

#### **5.3.4 Intellectual property**

Intellectual Property Rights (IPRs) are the most serious concern for the commissioner's case. Not only for the commissioner, but it is also the main challenge nowadays for any digital product and services as well.

In case the commissioner attracts and convinces the Ministry of Education of Turkiye (B2G model) for bulk licensing, the first question of the government client will be about the ownership of the IPRs. For the commissioner's case, selling the service beforehand, bulk licensing means financing the research and content development activities by government clients. In such a case the government would definitely hold the IPRs of the localized

content. Because, as it happens in Brazil, the government might grant free access to all public-school students, under the bulk licensing scheme.

However, during the discussions with potential local partners, the commissioner strictly underlined that it is not open to share the IPRs with locals even though with the government client. In contrast, the commissioner is fine with sharing the data with business clients as well as the government for only data analysis and performance monitoring purposes.

On the other hand, as long as the IPRs are protected by the commissioner's partner University in Finland, the commissioner might need to find a solution similar to the case in Brazil.

### **5.3.5 Recommendation for initial financing**

Although this is an academic study, some recommendations are added for financing the localization of the edtech services provided by the commissioner.

With the assumption that the business model strategy is to develop a startup company with a local partner, crowd funding might be a good option to finance the business operations.

Recently, many startup companies attracted angel investors through the crowdfunding networks. During this study, the researcher has contacted a senior person from a local crowdfunding platform named Fonangels. The brief outcomes of the meeting are added below:

- The project is highly interesting. The chance for being funded is high even though it is a service localization project.
- [www.fonangels.com](http://www.fonangels.com) is a suitable platform for the initial crowd sourcing.
- A startup has been recently funded with an investment of 100K Euros in return of 7% shares!
- The case of the commissioner is way beyond being just a startup, e.g. 11% of the business can be offered in return for 400K Euros (roughly estimated).
- Once the funding is successful, then the parties have to incorporate the business in Turkiye!

- After the establishment of local startup through the crowdfunding, parties shall take care of the sales & marketing on their own!

#### **5.4 Importing an education system from Finland to Turkiye**

Distinguished as one of the best education systems world-wide, Finland has diligently composed a consistent method of learning and educational development for many. The Finnish education system is acknowledged to have created a sustainable solution in coping with the inequality in access to education. In addition to that, Finland is famously well-known with its proven ability in retaining scientifically proven methods for developing educational concepts.

The prominent level of literacy (100%) of its population (aged 15 and beyond being able to read and write) makes the Finnish community one of the top rankings among all nations globally. It is believed that the more the literacy rate the less the poverty (Burton, 2020). So, literacy development is assumed to have a positive impact on the sustainable growth of the communities.

The reputation of Finland is high in Turkiye, despite the recent political tensions, (it is believed that the political conflict is temporary and therefore not considered within this research) and the Finnish education system is considered as legacy among many Turks.

The legacy is rooted back to the early eras of modern Turkish Republic, and due to the intense interest of the Turkish readers to the initial translation of the Russian activist and novelist Grigory Spiridonovich Petrov's book "Finland: The Country of White Lilies". Interestingly, since the original book was preserved in the prohibition until the collapse of the Soviet Union, the book was translated from the Turkish translation to Finnish language at that time (Zafer, 2019). The book had more than eighty publications in Turkiye within a century, and therefore it created a legacy about the Finnish education system.

Considering the above-mentioned fact, despite the temporary political conflicts between the countries, Turkiye is a highly welcoming domain to do business for a Finnish Educational Technology service providing company.



## 6 Conclusion

As commissioned research, this study was designed with the intention to contribute to the literature of market entry and strategy development through service design thinking. This study might need to be supplemented by additional research. With the help of further empirical studies, outcomes of this research can be useful for business professionals in strategic planning for digital services.

Throughout the entire research, it was realized that certain tools were very helpful in comprehending the intended business concept at early phases of service business expansion. Combination of the use of dedicated service design thinking tools and methods, e.g., ‘Benchmarking’, ‘BMC’, ‘SWOT Analysis’, and ‘Personas’, produced an exclusive perspective that the commissioner can count on during the strategic decision-making process.

Furthermore, having tangible inputs as a result of collaborative design thinking process, would undoubtedly be helpful while exchanging strategic information and assessing the target business domain (risks versus opportunities, enablers versus pitfalls, challenges versus advantages and so on) during the discussions with potential partners in the targeted countries.

On the other hand, service design thinking adds strategic value to the planning activities of a service business; however, the need of an interdisciplinary approach is undeniable as well, especially while developing parameters that measure the performance of the services in a totally new business domain.

The mission of the commissioner is to fight illiteracy worldwide. Despite the 12 years compulsory basic education in Turkiye, poor level of literacy among adults is a sign of some more substantial issues at the education system. With a high rate of illiteracy among the adults in Turkiye, it is obvious that childhood literacy development is not as effective as it is supposed to be. Underlying reasons for this issue might be various, including the limited access to the resources and infrastructure, however there is an obvious need to implement the modern technologies to the early childhood education at any level wherever applicable. The role of technology is to complement the official curriculum taught by the teachers in both public and private schools.

Turkiye, as it was said previously, due to the dense population, is an attractive market for digital service providers from Europe. For the commissioner’s case, since the purpose is to

export EdTech services to the Turkish market, the strategic decision making, and initial planning phase of the process can be supplemented by the outcomes of this study. An interdisciplinary approach might be more helpful for a serious decision. However, in addition to being EdTech, the services offered by the commissioner are mainly targeting the children at early ages (4 to 9 years). In further studies the scope might be narrowed down by confining the target group to a certain age in advance.

Referring to the findings of this research, the commissioner shall keep in mind that, Turkish business domain is comparatively different from Europe. Especially, service localization and intellectual property are two major issues. Additional tools and methods of service design thinking can be helpful to comprehend more insight about the market, but that would be more useful for the service prototyping rather than strategic decision making at this phase. With the contribution of the selected local partners at later stages, the commissioner can decide on whether to target B2G sales due to the previously highlighted concerns.

In the light of all the discussion that took place, the need for the services offered by the commissioner can be helpful. In contrast, the way the services are going to be offered in Türkiye will make a significant difference in the quality of the outcomes. Likewise, the business model and the market entrance strategy are as important as the way service is offered

The tools and models implemented in this research were fair enough at a time when the commissioner was confident about entering the Turkish market. However, due to some reasons, even before waiting to see the outcomes of this research, the commissioner has decided to prolong its decision whether to enter the Turkish EdTech market. Hereby, it is important to emphasize that, although the commissioner intended to enter the Turkish EdTech market with its current products and services, for a sustainable growth within the market, the commissioner must increase the service localization level in many aspects. Therefore, a strategy and a concrete plan for local operations, including the process of service development (graphic designs, etc.), is highly needed at next stages.

## 7 References

- A Brief History of the Internet*. (2022, December 04). Retrieved from [https://www.usg.edu/galileo/skills/unit07/internet07\\_02.phtml#:~:text=Sharing%20Resources,government%20researchers%20to%20share%20information.](https://www.usg.edu/galileo/skills/unit07/internet07_02.phtml#:~:text=Sharing%20Resources,government%20researchers%20to%20share%20information.)
- Albert, M. (2005). Which Business Model for Sustainable Development? In D. Lutz, & P. Mimbi, *Shareholder Value & The Common Good: Essays on the Objectives and Purposes of Business Management* (pp. 169-184). LawAfrica Publishing (K)Limited.
- Bates, A. (. (2019). *Teaching in a Digital Age: Guidelines for designing teaching and learning*. BC Campus.
- Bekman, S., & Gurlesel, C. F. (2005, 09 05). *The Right Beginning: Pre-School Education*. 2005: Tusiad Publications. Retrieved from Tusiad Website: <https://tusiad.org/en/reports/item/334-the-right-beginning--pre-school-education-in-turkey>
- Bergen, M. (2022, September 08). *YouTube Tries Again to Break Into Education Market With New School Service*. Retrieved from Bloomberg Web site: <https://www.bloomberg.com/news/articles/2022-09-08/youtube-swings-again-at-education-market-with-new-school-service>
- Beyond Sticky Notes. (2022, November 16). *What is co-design? A brief overview*. Retrieved from Beyond Sticky Notes Web site: <https://www.beyondstickynotes.com/what-is-codesign>
- Burton, J. (2020, August 12). *List of Country by Literacy Rate*. Retrieved from World Atlas: <https://www.worldatlas.com/articles/the-highest-literacy-rates-in-the-world.html>
- Cambridge Dictionary. (2022, December 04). *Domain - English meaning*. Retrieved from Cambridge Dictionary Web site: <https://dictionary.cambridge.org/dictionary/english/domain>
- Cambridge Dictionary. (2022, November 11). *SWOT*. Retrieved from Cambridge Dictionary Web site: <https://dictionary.cambridge.org/dictionary/english/swot>
- Clatworthy, S. (2017). Service design thinking. In M. Lüders, T. W. Andreassen, S. Clatworthy, & T. Hillestad, *Innovating for Trust* (pp. 167-182). Edward Elgar Pub.
- CMI. (2014). *Stakeholder Analysis and Management*. Northampton: Chartered Management Institute.
- Dabholkar, V. (2014, August 31). *Four approaches to problem solving*. Retrieved from Catalign Innovation Consulting Web site: <https://www.catalign.in/2014/08/four-approaches-to-problem-solving.html>
- DesignCouncil. (2019). *Double Diamond Model FINAL*. Retrieved from [www.designcouncil.org.uk](http://www.designcouncil.org.uk):

<https://www.designcouncil.org.uk/sites/default/files/asset/document/Double%20Diamond%20Model%202019.pdf>

Erlhoff, M. (2020). Anecdotes, Status Quo, Perspective. In *The Future of Service Design* (pp. 08-13). Köln: Prof. Birgit Mager, KISD | TH Köln .

Fair Deal Forum. (2016). *Principles of Co-design*. NSW Council of Social Service.

Fard, A. (2019, March 29). *The ultimate guide to stakeholder interviews: understand your clients*. Retrieved from UX Collective Web Site: <https://uxdesign.cc/the-ultimate-guide-to-stakeholder-interviews-understand-your-clients-a3bcf87b6e8b>

*Fatih Project*. (2016). Retrieved from Fatih Projesi Kurumsal Web Sitesi: <http://fatihprojesi.meb.gov.tr/en/about.html>

Fernando, J. (2022, June 29). *What Are Stakeholders: Definition, Types, and Examples*. Retrieved from Investopedia Web site: <https://www.investopedia.com/terms/s/stakeholder.asp#:~:text=Investopedia%20%2F%20Laura%20Porter-,What%20Is%20a%20Stakeholder%3F,employees%2C%20customers%2C%20and%20suppliers.>

Forum One. (2021, September 30). *Using Service Design to Map Your Digital Ecosystem*. Retrieved from Forum One Web site: <https://www.forumone.com/insights/blog/using-service-design-to-map-your-digital-ecosystem/>

Gibbons, S. (2022, October 23). *Stakeholder Interviews 101*. Retrieved from Nielsen Norman Group Web site: <https://www.nngroup.com/articles/stakeholder-interviews/>

Goel, A. (2018, January 24). *4 Tips For Training Content Localization Using Personalized Mobile Devices*. Retrieved from E Learning Industry Web site: <https://elearningindustry.com/training-content-localization-using-personalized-mobile-devices-4-tips>

Government of Brazil. (2022, February 18). *Grapho Game*. Retrieved from Government of Brazil Web site: <https://www.gov.br/en/government-of-brazil/latest-news/2022/graphogame>

Hayes, A., & Boyle, M. (2021, January 20). *What is a business ecosystem and how it works?* Retrieved from Investopedia Web site: <https://www.investopedia.com/terms/b/business-ecosystem.asp>

He, J., & Ortiz, J. (2021). Sustainable business modeling: The need for innovative design thinking. *Journal of Cleaner Production*, 298.

Humble, J. (2022, May 07). *What is the Double Diamond Design Process?* Retrieved from The Fountain Institute Web site: <https://www.thefountaininstitute.com/blog/what-is-the-double-diamond-design-process>

- IDEO. (2008, September 7). *Definitions of design thinking*. Retrieved from IDEO Design Thinking Web site: <https://designthinking.ideo.com/blog/definitions-of-design-thinking>
- Interaction Design Foundation. (2020). *The Principles of Service Design Thinking - Building Better Services*. Retrieved from [www.Interaction-Design.org](http://www.Interaction-Design.org): <https://www.interaction-design.org/literature/article/the-principles-of-service-design-thinking-building-better-services>
- Interaction Design Foundation. (2022, November 22). *What are ecosystem maps?* Retrieved from Interaction Design Foundation Web site: <https://www.interaction-design.org/literature/topics/ecosystem-maps#:~:text=Ecosystem%20maps%20are%20tools%20that,deliver%20the%20best%20customer%20experiences>.
- invest.gov.tr. (2022, November 23). *FDI in Turkiye*. Retrieved from Presidency of The Republic of Turkiye Investment Office Web site: <https://www.invest.gov.tr/en/whyturkey/pages/fdi-in-turkey.aspx>
- Johri, N. (2016, September 14). *Human-Centered Approach in Implementing the Sustainable Development Goals*. Retrieved from [americanprogress.org](http://americanprogress.org): <https://americanprogress.org/article/the-importance-of-a-human-centered-approach-in-implementing-the-sustainable-development-goals/>
- Kabir, S. M. (2016). Methods of Data Collection. In S. M. Kabir, *Basic Guidelines for Research: An Introductory Approach for All Disciplines* (pp. 201-275). Chittagong: Book Zone Publication.
- Kaplan, R. S., & Norton, D. P. (2005). The Office of Strategy Management. *Harvard Business Review*.
- Kawohl, J., & Krechting, D. (2020, June 18). *The Ecosystem Strategy Map*. Retrieved from Ecosystemize Web site: <https://www.ecosystemizer.com/blog/the-ecosystem-strategy-map>
- Ken Research. (2019). *Turkey E-Learning Technology and Content Market Outlook to 2023: Ken Research*. KenResearch.
- Klein, G., Snowden, D., & Pin, C. L. (2007). Anticipatory Thinking. *Proceedings of the Eighth International NDM Conference*. Pacific Grove, CA.
- Kothari, C. (2004). *Research Methodology - Methods and Techniques*. New Age International Ltd.
- Kotwal, A. (2018, Nov 21). *Design Thinking for Marketing Campaigns*. Retrieved from Medium: <https://medium.com/@abhijeetkotwal/design-thinking-for-marketing-campaigns-a9118f044aec>
- Leinonen, T. (2005, June 23). *(Critical) history of ICT in education – and where we are heading?* Retrieved from Teemu Leinonen Web site: <https://teemuleinonen.fi/2005/06/23/critical-history-of-ict-in-education-and-where-we-are-heading/>
- Liedtka, J. (2018, October). Why Design Thinking Works. *Harvard Business Review*.

- Lorange, P., & Vancil, R. F. (1976). How to Design a Strategic Planning System. *Harvard Business Review*.
- Marquez, J., & Downey, A. (2015). Service Design: An Introduction to a Holistic Assessment Methodology of Library Services. *Weave Journal of Library User Experience*, 1(2). doi:<https://doi.org/10.3998/weave.12535642.0001.201>
- McVicker, D. (2019, November 13). *A Simple Guide to Design Thinking for Marketers*. Retrieved from Digital Agency Network Web site: A Simple Guide to Design Thinking for Marketers
- Mind Tools. (2022, November 11). *SWOT Analysis: Understanding Your Business, Informing Your Strategy*. Retrieved from Mind Tools Web site: [https://www.mindtools.com/pages/article/newTMC\\_05.htm](https://www.mindtools.com/pages/article/newTMC_05.htm)
- Ministry of National Education of Turkiye. (2020, May 02). *WITH "EBA ASSISTANT", THERE WILL BE NO UNANSWERED QUESTIONS IN DISTANCE EDUCATON*. Retrieved from meb.gov.tr: <https://www.meb.gov.tr/with-eba-assistant-there-will-be-no-unanswered-questions-in-distance-educaton/haber/20829/en>
- Negbenose, A. (2021, April 30). *The 5 principles of service design thinking*. Retrieved from Axelos Website: <https://www.axelos.com/resource-hub/blog/the-5-principles-of-service-design-thinking>
- OECD iLibrary. (2022, November 23). *OECD Reviews of Evaluation and Assessment in Education: Student Assessment in Turkey*. Retrieved from OECD iLibrary Web site: <https://www.oecd-ilibrary.org/sites/71ee93b4-en/index.html?itemId=/content/component/71ee93b4-en>
- Oelkers, J. (2001). History of Pedagogical Reform Movement. *International Encyclopedia of the Social & Behavioral Sciences*, 11176-11179.
- Patterson, J. G. (1995). *Benchmarking Basics*. Menlo Park, CA: Course Technology Crisp.
- Pickell, D. (2021, May 14). *Qualitative vs Quantitative Data – What's the Difference?* Retrieved from G2 Web site: <https://www.g2.com/articles/qualitative-vs-quantitative-data>
- Pidun, U., Reeves, M., & Schüssler, M. (2019, September 17). *Do You Need a Business Ecosystem?* Retrieved from BCG Web site: <https://www.bcg.com/publications/2019/do-you-need-business-ecosystem>
- Pineda, D. (2020, Jan 08). *How To Use Design Thinking to Become Better at Marketing and Sales*. Retrieved from Better Marketing Publications: <https://bettermarketing.pub/how-to-use-design-thinking-to-become-better-at-marketing-and-sales-dc6d80a70343>
- Pokras, S. (1994). *Team Problem Solving*. Menlo Park: Course Technology Crisp.
- Polaine, A., Løvlie, L., & Reason, B. (2013). *Service Design: From Insight to Implementation*. Newyork: Rosenfeld Media.

- Pouilly, L. (2020, June). *Conducting stakeholder interviews: 12 Golden Rules*. Retrieved from Think Design Web site: <https://think.design/blog/conducting-stakeholder-interviews-12-golden-rules/>
- PR Newswire. (2019, September 30). *Turkey E-learning Market is Expected to Reach Over USD 200 Million by the Year Ending 2023: According to Market Research Report by Ken Research*. Retrieved from PR Newswire Web site: <https://www.prnewswire.com/news-releases/turkey-e-learning-market-is-expected-to-reach-over-usd-200-million-by-the-year-ending-2023-according-to-market-research-report-by-ken-research-300927524.html>
- Ratan, S. K., Ahand, T., & Ratan, J. (2019). Formulation of Research Question – Stepwise Approach. *Indian Association of Pediatric Surgeons*, 15-20.
- Sanders, E. B., & Stappers, P. J. (2008). *Co-creation and the new landscapes of design*. Taylor & Francis.
- Shah, S. (2016, May 14). *The history of social networking*. Retrieved from Digitaltrends Web site: <https://www.digitaltrends.com/computing/the-history-of-social-networking/>
- Smith, L. W. (2000). Stakeholder analysis a pivotal practice of successful projects. *Project Management Institute Annual Seminars & Symposium*. Houston, TX. Newtown Square: Project Management Institute.
- Sporre, K. (2020). Ethics in compulsory education – Human dignity, rights and social justice in five contexts. *HTS Teologiese Studies / Theological Studies*, 76(1).
- Statista. (2021, November 16). *Brazil - Statistics & Facts*. Retrieved from Statista Web site: [https://www.statista.com/topics/1537/brazil/#topicHeader\\_wrapper](https://www.statista.com/topics/1537/brazil/#topicHeader_wrapper)
- Statista. (2021, April 1). *Turkey - Statistics & Facts*. Retrieved from Statista Web site: [https://www.statista.com/topics/1442/turkey/#topicHeader\\_wrapper](https://www.statista.com/topics/1442/turkey/#topicHeader_wrapper)
- Stickdorn, M., & Schneider, J. (2011). *This is Service Design Thinking : Basics-Tools-Cases*. Amsterdam: BIS Publishers.
- Stickdorn, M., Hormess, M. E., Lawrence, A., & Schneider, J. (2018). *This Is Service Design Doing : Applying Service Design Thinking in the Real World*. O'Reilly Media, Incorporated.
- Strategyzer. (2014). *Business Model Canvas Explained*. Retrieved from Strategyzer Web Site: <https://www.strategyzer.com/canvas/business-model-canvas>
- Tansey, B. (2015, April 20). *Edtech Companies Hail New Rival LinkedIn As Industry Catalyst*. Retrieved from Xconomy Web site: <https://xconomy.com/san-francisco/2015/04/20/edtech-companies-hail-new-rival-linkedin-as-industry-catalyst/>
- Think Turkey. (2021, March 19). *Public vs Private Schools in Turkiye*. Retrieved from Think Turkey Web site: <https://www.thinkturkey.co/education/public-vs-private-schools-in-turkey/>

- Timetoast. (2022, December 04). *Computers in Education Timeline*. Retrieved from Timetoast Web site: <https://www.timetoast.com/timelines/computers-in-education-timeline>
- TiSDD. (2022, November 22). *TiSDD Method: Mapping Systems*. Retrieved from This is Service Design Doing Web site: <https://www.thisisservicedesigndoing.com/methods/mapping-systems>
- Tracxn. (2022, August 23). *Edtech Startups in Turkiye*. Retrieved from Tracxn Web site: <https://tracxn.com/explore/EdTech-Startups-in-Turkey>
- Tuominen, K. (2016). *The Path to Development: Benchmarking Manual*. Oy Benchmarking Ltd.
- UNICEF. (2012). *Analysis of the Situation of Children and Young People in Turkey*. Unicef for Children.
- UNICEF. (2012). *Analysis of the Situation of Children and Young People in Turkey*. Unicef for Children.
- Walliman, N. (2010). *Research Methods: The Basics*. Taylor & Francis Group.
- Walsh, K. (2012, February 01). *8 Great LinkedIn Groups for Educators*. Retrieved from Emerging EdTech Web site: <https://www.emergingedtech.com/2012/02/8-great-linkedin-groups-for-educators/>
- Watson, G. H. (1994, April 1). A Perspective on Benchmarking. 5-10. (Editor, Interviewer)
- WorldData. (2022, November 8). *Country Comparison: Brazil vs Turkiye*. Retrieved from World Data Info Web site: <https://www.worlddata.info/country-comparison.php?country1=BRA&country2=TUR>
- Yalin, Y. (2019). *Fatih Projesi Üzerine Değerlendirme (Turkish)*. Retrieved from Advancity: <https://advancity.com.tr/haberler/fatih-projesi-uzerine-degerlendirme.html>
- Yilmaz, K. (2011). Critical Examination of the Alphabet and Language Reforms. *Journal of Social Studies Education Research*, pp. 59-82.
- Zafer, Z. (2019). The Incredible Story of the Book "The Country of White Lillies" of Grigori Petrov. *Balkanistic Forum*, pp. 215-243.



## 8 Table of Figures

Figure 1 Conceptual Visualisation for the Frame of Reference .....	6
Figure 2: Double Diamond Model of Design Council UK (DesignCouncil, 2019) .....	7
Figure 3 Time plan for the research .....	8
Figure 4: Co-design process diagram (Fair Deal Forum, 2016).....	22
Figure 5: Business Model Canvas for GG Turkiye.....	35
Figure 6: First Persona – Adem Hodja .....	37
Figure 7: Second Persona - Bahar.....	38
Figure 8: Third Persona - Kubra Hanim.....	39
Figure 9: Fourth Persona - Hasan Bey .....	40
Figure 10: Stakeholders Map for GG (GraphoGame) Turkiye .....	41
Figure 11: Ecosystem Map for GG Turkiye .....	42

### Appendix A: Interview Questions for the Semi-Structured Interviews

1. How did your child learn to read (Kindergarden, Primary School, Self at Home, etc.)?
2. How supportive is the school education in terms of reading skills development?
3. How do/did you support child's reading outside classroom?
4. How can video games help a child learn reading?
5. How necessary for children to learn reading at early ages?