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EDUCATION TECHNOLOGY TO THE UNITED KINGDOM - CASE
STUDY: ARBOEDU

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Abstract

Education technology (ed tech) is continually shaping the way schools operate in the modern world. Ed tech can at its best diversify and enhance teaching activities that are carried out, resulting in not only better learning outcomes, but also in healthier and happier children. However, schools are as diverse as any other institutions in different countries, and understanding the market specific needs and trends is key to the success of education technology providers.

The aim of this thesis is to study the potential of the educational market in the UK for a Finnish product, ArboEdu, which intends to introduce itself on international markets in the near future. The research includes analysing the market and the business environment, so that a suitable marketing strategy for the case product could be designed.

A marketing strategy was constructed by contemplating the four key issues related to new market entry: product, price, place and promotion. This study includes recommendations on how to successfully introduce ArboEdu to the UK market.

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Education technology, outdoor learning, learning outside the classroom, market analysis, marketing strategy

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1 INTRODUCTION

1.1 Background

Technology has an ineradicable place in modern life, and the same applies for its place in education. Technology is transforming the way education is delivered to pupils and as a result how pupils are learning. The global market of education technology is estimated to be worth some 143bn euros by 2020 (Manning 2017).

Parents and childcare professionals across the United Kingdom are struggling with the health issues of children, as British kids are regarded as some of the most physically inactive in the whole world (Donnelly 2016). Families and also schools are calling for immediate actions to change their routines. Technology also remains in the eye of the storm, as the lack of exercise is often considered to be a result of the modern lifestyle, in which children spend increasingly more time in front of screens rather than doing outdoor activities (BBC News 2016).

But what if technology could be regarded as an aid for tackling the issues, instead of something that is worsening the situation? As preventing children from using technology or mobile devices altogether is not a realisable solution, schools should rather find ways to incorporate ed tech that supports children's movement and activity in ordinary teaching routines.

1.2 Introduction to ArboEdu

ArboEdu is educational tool for teachers in primary-, secondary- and high schools. With the solution, teachers can create outdoor tasks and connect various tasks into a learning route that pupils will then navigate through with the help of

mobile devices. ArboEdu is composed of two elements – a web interface for the use of teachers and a mobile application for the use of pupils.

Teachers can access ArboEdu web interface on a computer and create tasks with desired content tied to a specific location on the map. Multiple tasks can be connected into a learning route that can take pupils to solve tasks one after another in various locations outdoors. The mobile application is used by pupils for navigating and opening tasks outdoors, and it requires either a smartphone or a tablet to work. ArboEdu allows teachers to activate pupils during the school day without losing valuable teaching time, as pedagogically important content can be moved outside the classroom.

ArboEdu was originally designed by two Finnish teachers, Kotro and Eronen, and implemented by Arbonaut Ltd., an ICT company specialised in building geographical information systems. Kotro and Eronen had seen in their daily work that pupils are often inactive and even spend recess time indoors. At the same time, it was generally acknowledged how important movement is, not only for pupils' health, but also for pupils' concentration and learning. In addition, children would have a chance to learn important group working skills, as pupils would go out to solve the tasks on the learning route in small teams of three to four children. (Kotro 2017.)

ArboEdu has been previously provided for Finnish schools under the name HeiJoe. HeiJoe was first published in 2013, making it one of the first of its kind in the market (Kotro 2017). In 2017, the product went through rebranding, and as a result the name was changed to ArboEdu. The rebranding was part of other small-scale improvements made to the original product's web-interface and application. These improvements helped to better answer the current needs of the market.

1.3 Aim of the study

This study focuses on the potential of the education sector in the UK for the business, in primary- and secondary school levels. In particular, the field of education and learning technology will be studied. In addition to giving a thorough assessment of the ed tech market in the UK, the purpose of this research is to answer the questions of:

- What are the current market trends, and what kind of opportunities and challenges do those trends create for businesses in the industry?
- What are the strengths and weaknesses of ArboEdu, in relation to the competition in the industry?
- What kind of marketing tools need to be considered if entering the market?

The final conclusion and recommendations for further actions are made after answering these key research questions.

1.4 Methodology

This study was conducted using mostly qualitative research methods. Primary data was collected from observations and discussions with industry professionals made by the author at the British Educational Training and Technology Show (Bett), held in London from January 24-27, 2018. Discussions with teaching professionals and product developers from Finland, together with the author's first-hand experience as a project manager dealing with the product in question, contributed to the research as well. Secondary data was collected mainly from online sources, such as articles and releases from news agencies, government statistics and publications.

1.5 Outline of the report

This study consists of four main chapters, covering namely a business environment analysis, a market analysis, a marketing strategy and the final conclusions and recommendations.

The business environment in the United Kingdom is studied by overviewing the political, economic, social, technological and environmental factors affecting the industry conditions.

The market analysis chapter reviews the educational market of the United Kingdom in more detail. The value proposition for ArboEdu, as well as the target market, is defined in this chapter.

The marketing strategy focuses on the product, price, place and promotion – the four main elements in a marketing mix. The recommended branding and pricing strategies, together with potential distribution and promotion channels, are included in this chapter. The chapter also includes an initial plan for resources needed for the market entry. The final part summarises the findings of this study and gives recommendations for the future plans of the case company.

2 BUSINESS ENVIRONMENT ANALYSIS OF THE UNITED KINGDOM

2.1 Overview of the educational system in the United Kingdom

In the UK, education is divided in five stages; early years, primary, secondary, further education (FE) and higher education (HE), of which primary and secondary stages are compulsory (between the ages of 5 and 16). Children typically start primary school at the age of 5 and transfer to secondary school at age 11 or 12. Secondary education consists of different types of schools (for example comprehensive schools, grammar schools, academies), which vary for example in terms of freedom from local authoritative control or in the delivery of the curriculum. Further education is for people over the age 16, and is usually given at FE colleges, in work-based learning or at learning institutions. Higher education is provided for example at universities. (GOV.UK 2018a, 1-3.)

Schools are either government-funded state schools, which are free for pupils to attend, or independent schools, which charge tuition fees from pupils. State schools are obligated to follow the National Curriculum, which is the framework for education between the ages of 5 and 16, but independent schools have more freedom in planning and implementing education. (The Headmasters' and Headmistresses' Conference 2018.)

There are altogether 10,259,840 pupils in the UK, including full- and part time pupils. Of these, 8,669,080 pupils are located in England, 475,889 in Wales, 781,371 in Scotland and the rest, 333,500 in Northern Ireland. The number of full-time teachers in the UK is 506,400, the majority of which are working in England (425,200). (BESA 2016.)

In the United Kingdom, primary and secondary school students must attend school from 185 to 190 days a year. The school year begins either in mid-August or in the first week of September and ends in the end of June or early July, depending on the location of the school. (European Commission 2014.)

2.2 Overview of the macro-environmental factors in educational market

When planning business in the UK, it is important to identify and analyse the key macro-environmental forces in the industry. Although these forces are external and uncontrollable by an individual business, understanding these factors assists in making the most suitable decisions.

Political and regulatory factors

The UK voted to leave the European Union on June 23, 2016. After the vote, negotiations on the terms of Brexit started. The split is currently scheduled to happen on March 29, 2019. There will be a 21-month 'transition' period, until December 31, 2020, which will allow businesses to prepare for the post-Brexit era. During this 'transition' period, the final details of the new UK – EU relationship are to be set also. At present, there is still a lot of uncertainty of how for example trade and travel will be dealt between the UK and the EU after the departure. (Hunt & Wheeler 2018.)

The current EU single market supports the free movement of goods, services, money and people within the Union. If the UK decides to leave the single market membership after Brexit or fails to come to another agreement on trade with the EU, it would need to operate under the World Trade Organisation rules. This could involve introducing tariffs on goods and services, or more complex regulations for movement of people between the EU and the UK. (Hunt & Wheeler 2018.)

The National Curriculum for England, Wales and Northern Ireland (Scotland has a separate national curriculum) was first established after the Education Reform Act of 1988, after which it has been reviewed from time to time (STEM Learning Ltd. 2018). The National Curriculum is set out to “promote the spiritual, moral, cultural, mental and physical development of pupils at the school and society” and “prepare such pupils for the opportunities, responsibilities and experiences of adult life” (GOV.UK 2014a). The National Curriculum applies only to learners aged 5 to 16 in state funded schools; independent or private schools are not required to follow it (House of Commons 2009).

Although the National Curriculum is mandatory for all maintained schools in England, Wales and Northern Ireland, it is said to be merely a framework for education. The Department of Education has stated that “there is time and space in the school day and in each week, term and year to range beyond the national curriculum specification”. Teachers are encouraged to use it as an outline for developing their own lessons and learning methods. This gives the schools a certain level of freedom to decide the content and approach of teaching. (GOV.UK 2014a.)

Economic factors

The initial estimation before the Brexit referendum was that the UK would be hit with an economic crisis if Brexit was to happen. The pound did crash on the next day of the vote but has since gotten stronger against the dollar and stands 15 % down against the euro. However, the weakened value of pound means weakened buying power for UK customers. The UK economy has still continued to grow both in 2016 and 2017 despite the uncertainty of Brexit’s implications. (Hunt & Wheeler 2018.)

Brexit will inevitably have an enormous effect on the educational sector too, but the biggest questions are related to higher and further education and the free

movement of students within the EU (RSM 2016). Brexit could however mean changes in school funding; the Government needs to set aside some £3bn for the Brexit preparations (Batchelor 2017). In the academic year 2016/2017 the average primary school budget was £1,048,00 and the average secondary school budget £4,617,00 (BESA 2016).

Social factors

The government of United Kingdom reported how childhood obesity is becoming a burden in the country, as around 30% of children between 2 and 15 years are overweight or obese. Therefore, to support the government's aims to reduce childhood obesity, a Childhood Obesity Strategy was set. The strategy not only outlines the responsibility of families and communities, but also sets some expectations for schools to take action in solving the issue. (GOV.UK 2017.)

Schools in the UK offer two hours of physical education (PE) or other activities per week on average, whilst the recommendation is that all children should stay moderately or vigorously active for an hour a day, at least. Hence, the government suggests in the Childhood Obesity Strategy that schools must carry out every day at least 30 minutes of exercise through active breaks and lessons, physical education or extra clubs or events. In addition, the government recognises the importance of digital technology and innovative solutions in decreasing the number of obese and overweight children in the country. (GOV.UK 2017.)

One current trend in education, arisen from the need for increasing physical activity within pupils and their academic achievement, is outdoor learning (i.e. outdoor education, learning outside the classroom, learning outdoors). Outdoor learning means "purposeful and planned experience in the outdoors" (Institute for Outdoor learning 2017). Incorporating outdoor learning in teaching has been

proven to have a positive effect on pupil's health, happiness and social skills, along with beneficial development in teachers' job satisfaction (GOV.UK 2016).

Although the importance of activity for children's well-being has been recognised, there are some concerns among parents and school personnel that slow down the progress. Teachers are pressured to keep the pupils' academic attainment high, which again is often associated with keeping children in the classroom. The health and safety concerns associated with children moving and playing outdoors, as well as 'stranger danger', often hinders teachers from taking the lessons outside the classroom. (The Telegraph 2016.)

Technological factors

Recent research by British Educational Supplier Association (BESA) suggests that two-thirds of secondary schools and one-third of primary schools in the UK admit having insufficient equipment in terms of ICT infrastructure and devices (Rogers 2018). Hence, due to the constant restrictions in schools' ICT budgets, many schools have put in place a Bring Your Own Device (BYOD) –scheme, where pupils are encouraged to carry their own laptop or tablet to be used as a digital learning device (Parson 2017).

Owning and using digital devices, such as smartphones and tablets, from an early age is becoming increasingly common in the UK. In 2015, between 35% and 41% of pre-to-early teenagers between ages 8 and 11 owned a smartphone, while 80% of children aged 12 to 15 had their own mobile phone. (Ofcom 2016.)

However, there is an ongoing dispute about whether mobile phones should be allowed in schools or not. The issue resurfaced in the UK in December 2017, when France announced a total ban on mobile phones to take place in primary and secondary schools from September 2018 onwards (Samuel 2017). So far,

the UK government has not imposed a similar law that would forbid the use of mobile phones in school premises altogether, and at the moment the matter is up to each school to decide. The practices across the country vary widely, as some schools have already taken the stand on banning phones in classroom due to the major distraction they cause during lessons, while others claim that the devices should be recognised as essential learning tools. (Khomami 2017.)

Legal factors

UK schools are obliged to act under the Health and Safety at Work etc. Act 1974 and regulations made under this act, which states that school employers must “take reasonable steps to ensure that staff and pupils are not exposed to risk to their health and safety”, both in activities on and off school premises (Department for Education 2014a). The Department for Education has provided school authorities, leaders and staff with an advisory document that replaces several other guidance documents and summarises the existing health and safety laws (such as the Health and Safety at Work etc. Act 1974) that are relevant to schools. (Department for Education 2014a.)

The law states that the employer (the local authority, governing body or proprietor) has the final responsibility over health and safety in schools, although it can assign tasks to employees. This indicates that employees have the responsibility to look after their own and others’ health and safety and have a duty to take care of pupils the same way that a parent would do under the common law. However, it is highly uncommon that school employees would be prosecuted regarding accidents involving pupils – most allegations for negligence are pressed against the employer. (Department for Education 2014a.)

Schools must also follow the Health and Safety Executive’s policy statement *School trips and outdoor learning activities: Tackling the health and safety myths* when planning activities outdoor the school premises. It states many of the same

responsibilities as the Department of Education's advisory document and attempts to tackle myths about school bureaucracy and prosecution. (Health and Safety Executive 2011.)

Environmental factors

The current trends in the UK school grounds and environments outside the classrooms, especially at the primary level, suggest that the pressure to accommodate more pupils into school premises has a negative effect on the sizes of school yards across the country. The majority of the expanding schools respond to growing number of children by taking space from the playgrounds or sports fields to build more classrooms, without providing extra outdoor space from elsewhere. The situation is partly a result of a change in regulation, after a specific piece of legislation that secured the minimum outdoor space each school had to provide for sports was changed and turned into a non-binding guidance. (Clark 2014.)

The proximity of the Atlantic Ocean gives the UK a varied climate, which makes the daily weather changeable and difficult to predict (Barrow 2014). Although the climate is quite mild throughout the year, the maritime climate means that on average it rains in 156 days per year (Met Office 2018). Every schools' approach to poor weather conditions and what measures are to be taken to keep pupils in good condition in bad weather is expected to be stated in their respective health and safety policy (Department for Education 2014a).

3 ANALYSIS OF THE EDUCATIONAL MARKET IN THE UNITED KINGDOM

After thoroughly understanding the overall educational system and macro-environmental factors affecting business in the industry, the next questions that should be answered are: *What customers will ArboEdu serve?* and *How can we serve these customers better?* The answers can be found by defining the target market and value proposition for ArboEdu.

3.1 Target market

ArboEdu's target market in the UK can be roughly divided into two: schools, where teachers could be using the tool in teaching any chosen subject, and secondly: outdoor learning sites & service providers, where the organisations could utilize the tool for creating tasks in their premises.

Schools

In the academic year 2016/2017, there were 32,113 schools in total in the UK. The number of primary schools was 20,925 for the same academic year, the number of secondary schools was 4,168 and the number of independent- and special schools together with pupil referral units was 3,988 (Statista 2018a; Statista 2018b). The majority of the schools are located in England, 24,281 altogether, while Wales has 1,617 schools, Scotland 5,045 and Northern Ireland 1,170 schools. (BESA 2016.)

Currently, the school funding proceedings in England has two steps. In the first stage, the government grants the local authority a grant for school funding, and

in the second stage the local authorities allocate the majority of the grant to schools. In Wales the school funding process follows many of the same steps, and in Scotland the government provides money to councils, which then decide how to allocate the money for education (Dauncey 2016; Audit Scotland 2014). The amount of funding that each school gets is mostly based on the number of students the school has. After the local authority has given the funds to schools, they can make their own resource decisions. (Belfield & Sibieta 2016.)

In general, schools' governing bodies have the responsibility to organise the school spending (Department for Education 2014b; Dauncey 2016). The heads are responsible for managing and controlling the school and for implementing the strategic framework provided by the governing body. Heads have the power to perform the day-to-day management of schools. (Department of Education 2014b.)

Outdoor Learning sites & service providers

In addition to schools in the UK, the target market for ArboEdu consists of outdoor education and learning locations as well. These service providers are sites such as museums, farms, nature reserves, parks or other outdoor classroom places to where students can be taken for outdoor learning activities. These service providers could utilise ArboEdu by offering the application and learning routes as one option for on-site activities for their visitors.

The Association of Heads of Outdoor Education Centres (AHOEC), which is an association of leaders in outdoor learning, has listed some 80 outdoor learning organisations, centres and providers in their Gold Standard quality scheme. The scheme clusters together outdoor education providers, which have to fulfil the standards set by AHOEC. These providers are e.g. outdoor education & learning centres, farms and outdoor classrooms from all over the UK. (AHOEC 2017.)

The Council for Learning Outside the Classroom (CLOtC) has a similar scheme, meant for all types of learning outside the classroom providers throughout the country. This includes farms, nature reserves, adventure centres and other outdoor education sites that have to meet the learning and safety criteria. There are some hundreds of service providers holding the quality badge listed altogether on CLOtC's scheme. (CLOtC 2018.)

3.2 Value proposition

When planning how to serve customers better and how to define a product's value proposition, it is important to evaluate the competition in the market. In ArboEdu's case there are two products that can be used for similar purposes in schools or other learning premises.

Seppo

Seppo is a platform for learning games, designed for the use of schools on all educational levels (pre-school to university). It is the main product of a Finnish company providing education solutions, Lentävä Liitutaulu Oy (M&M 2016). Seppo is used on a web browser; a teacher creates the game on the computer, and students solve the game using a mobile device. The teacher can follow the course of the game, give feedback or assess the answers from students during the game. Seppo can be played both in online and offline modes and it can be used inside school premises as well as outdoors. (Lentävä Liitutaulu Oy 2015a.)

Seppo has two kinds of licences, for personal or organisational use. The standard personal licence, which has some limitations to the game, costs 69 euros (excluding VAT) and premium personal licence, with no limitations to the game, costs 99 euros (excluding VAT). Organisational licences require a quote from the company, and prices are not publicly available. (Lentävä Liitutaulu Oy 2015b.)

Actionbound

Actionbound is an application designed for digitally interactive scavenger hunts, developed in Germany since 2012. The user can create multimedia-based rallies, called Bounds, which can be for example tours that have places of interests along the way. The Bound can be either outdoors or indoors. It is accessible in offline mode as well. (Actionbound 2018a.)

The company offers free private licences, which can be used for creating scavenger hunts or city rallies for example as a part of birthday or bachelor parties. A professional licence, meant for trainings, company tours or team-building events, is priced between 80 to 1990 euros, depending on the number of players taking part in the Bound. Even though the educational sector is not the only and main target market for Actionbound, it sells Education licences for school trips or campus and museum tours. An Education licence for schools is priced between 45 and 380 euros, depending on the number of teachers using the application. (Actionbound 2018b.)

3.3 Evaluation of ArboEdu's strengths, weaknesses, opportunities and threats in the UK market

Identifying an organisation's or product's strengths and weaknesses in relation to the competition, as well as recognising opportunities and threats in the market, is helpful when conducting a situation analysis. Strengths and weaknesses are considered to be internal factors to the organisation, whereas opportunities and threats are external and not directly controllable by the company itself. However, understanding these factors aids in setting marketing objectives that are reasonable and reachable. The analysis of key internal and external factors affecting ArboEdu are presented in Table 1.

Table 1. ArboEdu's strengths, weaknesses, opportunities and threats.

<p>Strengths</p> <ul style="list-style-type: none"> - Long experience in GISs - References with the Finnish National Agency for Education creating web-based learning environment - SME's flexibility to respond to specific customer needs - Close cooperation with teaching professionals 	<p>Weaknesses</p> <ul style="list-style-type: none"> - Improvements needed in style and design - Inoperative on roofed areas (GPS limitations) - Dependency on internet connection - Underestimation of resources needed in marketing and sales
<p>Opportunities</p> <ul style="list-style-type: none"> - Positive image/brand of Finnish education - Education export programmes in Finland - Childhood Obesity Strategy, awareness of the lack of activity in schools 	<p>Threats</p> <ul style="list-style-type: none"> - New entries in ed tech - Health and safety concerns related to outdoor learning - Insufficiency of school premises in urban areas and technology provided in schools

ArboEdu benefits from the long experience that Arbonaut has from building geographic information systems (GIS), which ArboEdu has at its core, too. ArboEdu was not the first GIS that Arbonaut built for the education sector either; the company has previously built a web-based learning environment for schools, called PaikkaOppi, as a part of a development project funded by the Finnish National Agency for Education (Arbonaut 2018; PaikkaOppi 2018). Arbonaut was responsible for implementing the map interface of the platform. Although PaikkaOppi was designed to support only mainly geography and environment education, Arbonaut can benefit from utilising the same technological developments in ArboEdu as well.

When developing ArboEdu for the education industry, it has been crucial for Arbonaut to have the support of the teachers Kotro and Eronen, who have insight into school environments and needs. Cooperation with the teachers offers an

efficient way of testing what works and what does not with ArboEdu in practice. It is also something that can be used in marketing; having two education experts behind the product creates credibility. Arbonaut is also a member in two notable education export programmes, the Joensuu-based Global Education Park Finland and the broader, Finnish National Agency for Education -led Education Finland –programme, which both can be used as promotion approaches to gain additional conviction.

Currently, the use of ArboEdu requires a functioning internet connection, as the routes first have to be downloaded to the mobile device before they can be accessed. In addition, if the teacher has attached content that is on the web (for example a link to a video) to some of the tasks on the route, the pupils will not be able to open the attachment and complete the tasks without a functioning internet connection on the mobile device. Hence, the teacher has to be sure that the tasks do not contain web-tied content if they are to be used in the offline-mode outside the school premises.

Another weakness of ArboEdu is the reliance on a given mobile device's functioning GPS. Even the modern mobile devices, at least the ones in consumer use, lack GPS accurate enough to be used indoors. Some similar products have utilised e.g. QR-codes to make applications usable indoors, ArboEdu does not function efficiently in most roofed areas. This factor has a negative effect on the versatility of ArboEdu's use.

The usability of ArboEdu, both in the mobile application and on the web interface, is currently not in the desired level regarding the ease-of-use. There has not been renewed planning and design for the usability of the product since its' launch few years ago, and this affects the usability for the customers. Nowadays, the design of mobile and web applications is generally on a high level, and ArboEdu needs to match this level to attract customers.

Apart from the minor technical flaws that may weaken ArboEdu's position on the market, the underestimated resources (dedicated to ArboEdu) at Arbonaut hinders the further development of the product. To thrive in the industry, ArboEdu needs further development both in the mobile and web design side, not to mention the investments needed for sales and marketing activities.

4 MARKETING STRATEGY FOR ARBOEDU

Once there is an understanding of the business environment and marketplace in which ArboEdu will be operating in the United Kingdom, a customer-driven marketing strategy can be designed. A marketing strategy is an essential element of market penetration for any product or service, as a well-designed strategy can answer the questions of how to discover, engage and keep target customers in a new market.

4.1 Product

Developing a product involves deciding on the benefits the product will offer and communicating these to the customer (Kotler, Armstrong, Harris & Piercy 2013, 244). ArboEdu needs to be differentiated and strongly branded in order to succeed in the education technology market in the UK, especially since there are other solutions that perform well. What could be perceived also at the British Educational Training and Technology Show 2018 in London is that the number of different kind of games, software and applications marketed for schools and teachers is immense. There appears to be a technological solution for almost every operation carried out on school grounds, and it is not an easy task to stand out in the crowd.

ArboEdu should be strongly branded as a tool for teachers and not as a game for students. Although gamification in education and learning has its place, marketing ArboEdu as a tool for creating pedagogically important content outdoors can be its unique selling point. The use of ArboEdu - activating students during the school day with the help of the application - does not take excess time away from teaching the subject on hand, but rather supports what is taught in class with the teacher. The benefits from the activity that students get from using the application comes as an addition to the learning not the other way around.

Product features are a competitive tool as well, and it is suggested that some additional features could be added to the current ArboEdu model to create excess value to the customers. The elements that could improve the product are for example:

- *answer function built into the mobile application*, so that pupils could type their answers directly on the application instead of the current need for paper and pen when outside,
- *messaging function*, which would allow teachers to communicate with pupils when outside using the application,
- *bidirectional functionality*, so that pupils could attach e.g. pictures or videos to their answers on the application (would serve especially in teaching science or biology, as children would be able to report their findings in formats other than writing),
- *offline mode*, which would allow for the extensive use of the application also in areas that are not covered with internet connections.

In addition to the new features, some improvements should be made to the current style and design of ArboEdu. Good design is the key contributor to a product's usefulness (Kotler et al. 2013, 245). The current teachers' user interface on the web needs slight redesign, and this time it must be designed with ease-of-use in mind. All the functions needed for creating tasks or learning routes must be clearly placed and indicated, so that the use of the application comes intuitively. The former HeiJoe styling should be replaced with a more suitable design as well, as it does not serve the new brand sufficiently.

4.2 Price

Pricing decisions play a key role in a company's value proposition, capturing customer value and building sustainable customer relationships. Thus, it is one of the most difficult elements in a marketing mix – a price too high creates no demand for ArboEdu on the market, but a price too low brings no revenue to the company.

Current pricing

ArboEdu's predecessor, HeiJoe, has been sold in Finland in three different types of packages. The price has depended on not only the number of user accounts that are purchased, but also on the server storage space that comes with the packages that are purchased. The storage space is needed for creating content in the application. All the individual tasks, longer routes and the content (e.g. pictures) that are attached to the tasks and routes take some server space at Arbonaut, and hence have an influence on the arrangements that must be made for ensuring a functioning service for the users.

The price for one user account, with 100 megabits of storage capacity, is 40 €/year (+ VAT). The second package, with up to 15 user accounts and a 500-megabit storage space, is priced at 200 €/year (+ VAT). The largest package, with up to 30 user accounts and 1000 megabits of storage capacity, is priced at 350 €/year (+ VAT). (HeiJoe 2018.)

The difficulty with the above-mentioned pricing model is that one cannot have a clear idea of what precisely is included in the package, as it is hard to understand how much storage space is needed for e.g. just one task on the application or for attaching a picture on a task. Customers need precise information to support their

purchasing decisions, and if they do not fully understand what they are spending the money on, they are likely to disregard a product if it is not a necessity.

Pricing on the UK market

ArboEdu's pricing principle should be simplified compared to the one that has been used on the Finnish market. The pricing could still be based on yearly licences as it is now, but the options could be cut to just two: personal and organisational licences. With this principle, there is a low-threshold option for purchasing a licence just for individual teacher use or for those small-sized organisations that have only one user working with the application, but organisations that have a large number of users can possibly save money by purchasing an organisation licence at once.

Although the server storage space included in the licence could vary between personal and organisation licence, it does not need to be one of the key points in pricing in order for the pricing model to remain understandable for consumers. It is more straightforward for a customer to simply purchase a personal or an organisation licence, which accordingly includes adequate storage capacity from the service provider's side. 100 megabits of server storage space for individual users and 1000 megabits for even a larger organisation is sufficient, and this limitation can be stated in the terms of use.

The suggested price setting in euros can be seen from Table 2. Table 2 also illustrates the price equivalent in British pounds, according to the currency exchange rate on April 17, 2018 (Market Watch 2018).

Table 2. Suggested pricing for ArboEdu licences.

	Price €/year, excluding VAT	Price equivalent in £/year, excluding VAT
Personal licence (individual user)	40 €	£34.5
Organisation licence (up to 30 users)	350 €	£302

The Value-Added Tax on telecommunication services or digital content is charged on the level of the country of customer, hence the UK VAT will be added on top of the price at the time of purchase (Europa.eu 2018). The standard VAT rate in the UK is 20 % (GOV.UK 2018b). With the UK VAT included, the total price of the personal licence would be approximately £41.5 and that of the organisation licence £362.50.

4.3 Place

‘Place’ in a marketing strategy refers to the distribution channel – how a product is distributed to the market and to the target audience in a way that profitable customer relationships will form. The company can decide on using direct marketing channels, where a product is distributed directly to the customer e.g. via the internet, in addition to using indirect channels, where there are one or more intermediaries between the producer and the customer.

Direct marketing channel

ArboEdu can be sold directly to customers online through its website arboedu.com. Thoughtfully composed product web pages are a key element in online sales success. It is important to build ArboEdu’s website in a way that it gives potential customers enough information on the product and its benefits to encourage purchases, so that the customers can deploy and use the product

easily. Developing and maintaining an effective and presentable online marketing channel requires resources and sales forces from the company, and it must be ensured that Arbonaut has the ability to sustain direct marketing activities in the long term.

Indirect marketing channel

An indirect marketing channel could be beneficial for ArboEdu, as intermediaries in distribution can assist in gathering and sharing market information, finding and communicating with potential customers and support in adapting the offering to fit customer needs (Kotler et al. 2013, 356-357). The author recommends that in addition to the direct marketing activities in the UK, Arbonaut would commission an agent to represent ArboEdu in the market.

In Finland Arbonaut has been working closely with the two teachers who have been developing the product from the very beginning, and it is a definite asset to have teaching professionals cooperating with the producer. In the UK, ArboEdu similarly needs to have a representative who is familiar with the educational market and understands the concept of outdoor learning as well. Although working with an agent has its expenses, the advantages of gaining market insight, the right contacts in the industry, and increasing customer trust through local specialist representation would most likely exceed the price paid.

4.4 Promotion

Promotion in a marketing strategy is one of the key elements in building profitable customer relationships. Arbonaut's and ArboEdu's value proposition must be communicated to the customer in a clear and compelling way. It must be planned so that it serves the overall objective of marketing strategy. Promotion can be

communicated to the customer through different channels with various tools such as advertising, direct marketing or personal selling.

Sales promotion

Being new on the market, ArboEdu would benefit from a short-term sales promotion at the very beginning of marketing activities in the UK. A short-term trial for a small number of target customers would work as an incentive for later purchases, but also provide valuable feedback from the audience. This type of sales promotion could be easily conducted by directly contacting stakeholders from both target segments, schools and outdoor learning service providers. Planning and executing a trial or a demonstration of ArboEdu for a carefully targeted audience is also a relatively low-cost tool for promotion, as it does not require a physical presence on the market and can be done via digital channels.

Personal selling

Another valuable communication tool is personal selling, which does not imply only sales presentations but also taking part in trade shows and exhibitions. Although Bett is certainly the UK's biggest trade show for educational technology and training, attracting every year the biggest crowd of education professionals and service providers in the industry under the same roof, it is not necessarily the best choice for a niche product like ArboEdu. A better option would be the a more specialised event, such as the UK Outdoor Learning Sector Conference, held next time in Staffordshire in November 2018 (Institute for Outdoor Learning 2018).

The three-day conference, coordinated by the UK's main outdoor learning associations and councils, includes keynote speakers, workshops, summits and forums related to outdoor learning. There is also an exhibition space in the

conference reserved for the sector's product or service providers. In addition to more moderate exhibition costs compared to Bett, the conference would also give a better opportunity to reach and network with industry professionals. (Institute for Outdoor Learning 2018.)

Advertising and public relations

In ArboEdu's case, the main advertising and public relations channel to be used should be online media. Together with websites, social media has inevitable value in present-day marketing; hence, ArboEdu should be present and active at least on Facebook and LinkedIn, the main social media sites that work well for business purposes as well.

Facebook is considered to be the most efficient paid option for advertising out of all the social media channels, mostly due to its size (Patel 2018). Facebook would serve advertising ArboEdu well, as the ads can be targeted at a specific audience. An audience can be found by identifying interests (e.g. outdoor learning and related stakeholders, ed tech) and refining demographic criteria. Facebook advertising can be started with a relatively low daily budget, and then be adjusted later according to the response of the audience.

4.5 Resource planning

The activities stated in the marketing strategy will take resources from the company. It is important to plan what is needed to enter the market successfully, in what stage and with what resources. This chapter includes a schedule for the first year, and a list of the main expenses for the time frame.

Initial schedule

Scheduling the planned stages in the marketing strategy aids the company in planning activities, and most importantly resources for the near future. Table 3 illustrates a tentative schedule for the following year, taking into account the needed changes to the product and planned promotion activities (in addition to the on-going marketing, sales and development routines to support the entry).

Table 3. Schedule for ArboEdu, June 2018 – May 2019.

June 2018	-Technical development -Website development
July 2018	-Technical development -Website development
August 2018	-Technical development -Internal testing in the company -Setting up social media channels
September 2018	-Feedback from internal testing & development according -External testing: trial accounts to a small test group in the UK -Marketing material development
October 2018	-Feedback from external testing & development according -Preparation for the UK Outdoor Sector Learning Conference -Preparation for the Education Forum
November 2018	-Participation in the UK Outdoor Sector Conference, 7–9 November -After-conference contacts -Participation in the Education Forum, 20–21 November
December 2018 – January 2019	-After-forum contacts -Reviewing the need for the further development of marketing material & channels
February 2019	-Preparation for the Outdoor Learning and Sustainability Conference -Preparation for the Education Show 2019
March 2019	-Participation in the Outdoor Learning and Sustainability Conference, UK -Participation in the Education Show 2019, UK
April 2019 – May 2019	-After-conference contacts -Reviewing the need for further development

Estimated expenses

Once there is a plan in place for the required activities during the first year, the estimated costs for implementing the plan can be calculated. A simplified list for the expenses for the first year, i.e. the activities from Table 3, can be seen from Table 4.

Table 4. Approximate estimation of the main expenses for ArboEdu's first year

Human resource expenses	
Technical development & support	21,420 €
Website development	4,250 €
Sales & Marketing	40,800 €
Other expenses	
Marketing materials (e.g. brochures, roll-ups)	750 €
Events	
- 2018	4,500 €
- 2019	5,500 €
	77,220 €

Based on the estimation, the company would need to sell between 221 (organisation-) and 1,931 (personal-) licences to cover the expenses of the first year of entering the market.

5 CONCLUSIONS AND RECOMMENDATIONS

The education technology market in the United Kingdom offers opportunities for a product like ArboEdu. Over the past decades, the health and motivation issues related to children sitting indoors consecutively for long periods of time have been recognised, and solutions for this are sought after even on governmental levels. Even though the current market trends bring opportunities, the situation is contradictory – there are also concerns that the boom of mobile devices is one reason altogether for the health and motivation problems with children.

It must be also noted that the UK in its entirety is a big country and an enormous market to grasp at once. As it is composed of four nations that have not only geographic and demographic differences but also variations in their respective regulations and curricula, it is advisable to narrow down the target market in the beginning to a specific nation for example. Re-measuring the target market would likely lead to more effective and profitable efforts in the entry activities.

Although there are not too many other similar products on the market, significant competition still exists. The competitors have already been on the market for some time and have had time to build their brand and customer relationships. That is why it is recommended that ArboEdu be branded more distinctly as an outdoor education tool, and to differentiate itself from the other more game-like solutions on the market. To reach this, some modifications to the current concept should be made.

Price-wise ArboEdu is quite competitive on the market, but the current pricing model of the product should be clarified. The principal distribution channels are suggested to be both direct- and indirect marketing, through the product's website and by commissioning a representative from the target market. A representative in the UK would also assist in gaining ever-important market insight and

connections, which would benefit ArboEdu tremendously at this stage of the process.

Finally, building profitable customer relationships requires effective promotion. Short-term sales promotion would help in reaching customers in the beginning and in providing valuable feedback from the market. It is suggested that the company does testing in the market quite early in the process, so that the future activities and resources could be modified according. Advertising activities could start through ArboEdu's social media channels, which play an important role in public relations as well. It is also recommended that ArboEdu would be presented in an industry event - the UK Outdoor Learning Sector Conference in November 2018 would for example be a good place to start.

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