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Drivers of Internationalization Strategies for Digital Education Startups

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Abstract:
As well as many other industries, education is currently being disrupted by new emerging digital solutions. Teachers all around the world are adopting new digital materials to their everyday teaching including digital books and educational games. This recent trend engenders opportunity for new companies to emerge with cutting-edge digital educational solutions. Furthermore, with a digital solution expansion to international markets without heavy investments is possible. However, for example in Finland only few companies have been able to successfully enter new markets with educational technology.

Internationalization strategies have been widely studied during the past few decades. The early studies already identified a set of different market entry modes including export, licensing, franchising, joint ventures and wholly-owned subsidiaries. However, for small resource-limited companies, export is the most viable option. Export allows company to maintain the full control of the process and product without making heavy investments on the internationalization. The export performance framework shows that the export strategy is depending on both internal (company resources) and external factors (country and industry characteristics). More recent studies have also identified alternative entry modes such as cooperative strategies and innovative use of internet. However, the previous literature has not studied this topic purely in education industry and therefore does not provide detailed knowledge for startups planning international expansion in digital education industry.

The aim of this study is to identify key determinants for market entry strategy selection for startups in digital education, and identify different strategies for addressing the major challenges in the digital education markets. To study this topic, 15 interviews were carried out to both experts of internationalization of digital education and companies that are pursuing international expansion with digital educational solutions. The data analysis followed Gioia methodology (Gioia, Corley, & Hamilton, 2012), in which 1st-order terms are identified first, and then the 2nd-order themes are established accordingly.

The findings revealed several market-level factors that drive the market entry strategy selection. These factors were related to cultural and regulatory differences, trust and reliability, different customer types and customer needs. In addition, the findings showed several strategies how companies can address the challenges related to the above market-level factors. Therefore, this study provides managers of startups with insights of digital education markets as well as a toolkit for addressing the market-level challenges in digital education.

Keywords: Internationalization, strategy, startup, digital, education

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Tiivistelmä:
Opetusala on kokemassa suuria muutoksia uusien digitaalisten ratkaisuiden myötä. Opettajat ympäri maailmaa ottavat opetuskäyttöön uusia digitaalisia ratkaisuja kuten digitaalisia oppikirjoja sekä oppimispelejä. Opetuksen digitalisaatio synnyttää uusia yrityksiä, jotka tuottavat innovatiivisia ja moderneja teknologiaratkaisuja opetuskäyttöön. Tämänlaisille digitaalisia ratkaisuja tuottaville yrityksille on mahdollista myös kasvaa kansainvälisesti ilman suuria alkuinvestointeja. Kuitenkin vain muutama suomalainen digitaalisia ratkaisuja tuottava yritys on kyennyt onnistuneesti laajentumaan uusille markkinoille.

Kansainvälistymisstrategioita on tutkittu laajalti viimeisten vuosikymmenien aikana. Jo aikaiset tutkimukset määrittelivät erilaisia tapoja tunkeutua uusille markkinoille. Näitä tapoja ovat muun muassa vienti, lisensointi, franchise-periaate, yhteisyritys sekä tytäryhtiö. Useimmille pienille yrityksille suora vienti on kuitenkin parhaiten sopiva tapa kansainvälistyä. Suora vienti antaa yritykselle täyden kontrollin operaatiosta ja tuotteesta vaatimatta kuitenkaan suuria alkuinvestointeja. Viennin suorituskyky –malli osoittaa, että vientistrategia perustuu sekä sisäisiin (yrityksen resurssit) että ulkoisiin tekijöihin (markkina- ja toimiala kohtaisiin tekijöihin). Uudemmat tutkimukset ovat lisäksi esittäneet vaihtoehtoisia tapoja tunkeutua markkinoille kuten yhteistyöhön perustuvat strategiat ja internetin innovatiivinen hyödyntäminen. Kirjallisuus ei kuitenkaan ole tutkinut kansainvälistymistä pelkästään opetusalan näkökulmasta, eikä täten tarjoa yksityiskohtaista tietoa pienten digitaalisia ratkaisuja tuottavan yrityksen kansainvälistymisestä.

Tämän tutkimuksen tavoitteena on tunnistaa keskeisimmät tekijät, jotka vaikuttavat pienten kasvuyritysten tapaan tunkeutua markkinoille, sekä tunnistaa erilaisia strategioita markkinoiden keskeisimpien haasteiden ylittämiseen. Tutkimuksessa suoritettiin 15 haastattelua sekä opetuksen kansainvälistämisen eksperteille että pienille kasvuyrityksille, jotka ovat kansainvälistyneet digitaalisen opetuksen alalla. Haastatteludata analysoitiin käyttämällä Gioia-metodia (Gioia et al., 2012), jossa tunnistetaan ensin ensimmäisen tason aiheet, joiden perusteella voidaan luoda laajempia toisen tason teemoja.

Tutkimuksen tulokset toivat ilmi useita markkina-tason tekijöitä, jotka vaikuttavat yrityksen tapaan tunkeutua markkinoille. Nämä tekijät liittyivät kulttuuriin ja sääntelyyn, luotettavuuteen, erilaisiin asiakastyyppeihin, sekä asiakkaiden tarpeisiin. Tulokset toivat esiin myös useita tapoja, joilla yritykset voivat ylittää keskeiset haasteet liittyen edellä mainittuihin markkina-tason tekijöihin. Tutkimuksen tulokset tuovat esiin markkinoiden keskeisiä piirteitä sekä erilaisia tapoja vastata markkinoiden erityispiirteistä syntyviin haasteisiin.

Avainsanat: Kansainvälistyminen, strategia, kasvuyritykset, digitaalinen, opetus

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1. Introduction

1.1 Background

The rapid globalization and developments in technology have created new business opportunities especially for small- and medium sized companies to compete in a global environment (Ruzzier, Hisrich, & Antoncic, 2006). Several companies in traditional industries have re-engineered the traditional business models to gain significant position in the market (Casadesus-Masanell & Ricart, 2011). The best-known examples are Airbnb and Über, both having disrupted the hotel and taxi industries (Van Alstyne, Parker, & Choudary, 2016). Therefore, globalization and developments in technology are likely to entail further amendments also in various other industries.

One of these industries that are currently taking the steps toward digitalization is education industry. Teaching in primary and secondary education is increasingly carried out by using digital materials. According to Bidin & Ziden (2013), the attributes of new generation, 'digital natives' (Prensky, 2001), have affected to education industry and are forcing it to match the teaching and learning to this generation's experience and abilities. Furthermore, teachers have generally expressed positive opinions on the relevance and impact of the use of information and communication technologies in teaching (Wastiau et al., 2013). Still, only few teachers have integrated technology as part of their everyday classroom teaching (Becta, 2008). Several researchers have therefore studied the barriers of integrating technology as part of teaching (e.g. Hennessy, Ruthven, & Brindley, 2005; Yildirim, 2007). However, the perceived barriers seem to differ between different countries and regions (Whelan, 2008).

The existence of specific barrier has a major effect on companies producing digital learning materials. For example, if a school has not a proper infrastructure in place, the company needs to promote school's initiative to invest in required equipment before the company can sell its product. Since in different countries and regions schools are perceiving different kinds of barriers of technology integration in teaching,

the company needs to adapt its strategy according to characteristics of that market. In addition, the education markets are heavily driven by institutional forces, which make the education industry relatively complex from a company's point of view. These unique characteristics of education industry generate challenges for the companies that are operating in this industry.

Nonetheless, the shift towards digital materials in education creates opportunities for new companies to emerge. These startups may have willingness to expand internationally, because in long-term outward operations increase the competitive advantage of a company (Ruzzier et al., 2006) and digital materials are relatively easy to distribute globally. However, small companies have often very limited resources, both financial and managerial (Gabrielsson & Kirpalani, 2004; Jarillo, 1989; Kaufmann, 1995). Therefore, deliberate planning is essential to successful internationalization (Brouthers & Nakos, 2005; Diamantopoulos & Inglis, 1988).

According to Root (1987), the most crucial factor in successful internationalization is the selection of the entry mode. These entry modes include non-equity modes (export, licensing, and franchising) and equity modes (joint ventures and wholly owned subsidiaries) (Pan & Tse, 2000). Even though several studies have indicated that the equity modes ("foreign direct investment", FDI) are more likely to lead better long-term performance (e.g. Zahra, Ireland, & Hitt, 2000), FDI is not a feasible entry mode for most small companies because of the capital constraints (McAuley, 1999). Sousa & Novello (2014) argued that exporting is an attractive entry mode for small companies as it offers flexibility and minimal capital commitment.

Over the past few decades, the research of export as an internationalization strategy has been widely studied (Chen, Sousa, & He, 2016). Unique firm characteristics and competitive advantages are key determinants of selecting export marketing strategy (Cooper & Kleinschmidt, 1985), but identical strategies may not succeed in different external environments (Robertson & Chetty, 2000). Therefore, export performance is dependent on the export marketing strategy, which is firm's management's response to the interaction between internal and external factors (Cavusgil & Zou, 1994). In the

latest research, special attention has been paid to these antecedents of export performance (Chen et al., 2016).

The research of export performance considers the firm size as a factor that contributes to the export marketing strategy, and the theory is therefore applied to all company sizes. However, in their early study, Oviatt & McDougall (1994) argued that certain problems exist while applying standard concepts to International New Ventures (INV). Thereafter, several studies have focused specially on new ventures which seeks international expansion from inception (e.g. Burgel & Murray, 2000; Gabrielsson & Pelkonen, 2008). For example, Gabrielsson & Kirpalani (2004) argue that INVs often use specially adjusted market entry modes such as cooperation with Large Multinational Enterprises (MNEs). While investigating the export strategies for startups, it is essential to consider both exporting theories and the specific theories of INVs.

Even though the internationalization of small companies is widely studied, the theory is rarely tested in a specific market environment and in a specific industry. Additionally, the education markets are unique in several ways and the theories of internationalization may not fully hold in such complex environment. From managerial point of view, understanding what kind of internationalization strategies fit to a specific market environment is of interest. With this knowledge, a company could adjust its internationalization strategy according to the characteristics of the target market. Therefore, the market specific characteristics (such as key barriers of technology integration and attributes of education industry) that affect to adoption of digital learning materials are examined in this study. In this thesis, the industry is fixed to digital education and only startups pursuing international activities are considered. The aim of the study is to reconcile drivers of internationalization strategies of startups in the field of digital education in different market environments.

1.2 Objectives and Scope of the Study

Digital materials being used in education creates opportunities for startups to expand internationally. Several internationalization strategies for small companies have been

identified and widely examined in the literature, but how these strategies fit to different market environments in digital education is still unknown. To explore this research gap, two following research questions were formed:

Q1: *What are the key determinants of the digital education markets that affect the selection of market entry strategy?*

Q2: *What are the effective market entry strategies in different markets for startups in digital education?*

The objective of this thesis is to gain knowledge about unique characteristics of education markets, and understand how they affect to startups' strategic consideration of internationalization. The theory of different internationalization strategies already exists, but the uniqueness of the education markets and its institutional complexity makes the situation different. Therefore, the existing theory may not fully fit to such operating environment. The purpose of this study is to provide managers of the startup companies in digital education with detailed knowledge about education markets and how to address the existing challenges of entering new foreign markets.

To address the research questions, a qualitative study was conducted. The study comprised two sets of interviews. The first set included experts of the education in global markets and ICT ("Information and Communications Technology"). The experts shared their experiences in the global markets and therefore pointed out several determinants that affect to the selection of market entry strategy. The second set of interviews included Finnish startups that produce digital learning materials and are pursuing international expansion. The interviews focused on the company's resources for internationalization and the key strategic decisions that had been made while operating in foreign markets. This enabled the interviewees to discuss topics that were important and relevant for them, not only the topics that were decided beforehand. The interview data was analyzed by following Gioia's methodology (see Gioia, Corley, & Hamilton, 2012).

The findings suggested that in foreign markets in digital education, companies need to consider especially the impact of the local culture, company's reliability, different customer types and customer needs. These topics were supported by several detailed market characteristics. The findings also suggested several strategies for companies to address the challenges in the foreign markets. The study contributes to practitioners by providing a set of strategic approaches for startups' internationalization in digital education.

1.3 Structure of the Thesis

This thesis is composed of nine chapters. Chapter 1, Introduction, describes briefly the background of the research, defines the research questions and sets the scope of the study. Chapter 2 focuses on characteristics of the digital education industry. First, the chapter introduces the main industry characteristics, and then continues to discuss the barriers of integrating digital education solutions in teaching. Chapter 3 covers the theory of the main internationalization and market entry strategies, which are eligible for startups. Chapter 4 summarizes the literature review by building the overall theoretical framework for this study.

Chapter 5 describes the methodologic approach that was used in the research. The chapter describes the overall methodological approach, data collection and data analysis. Chapter 6 and 7 discuss the key findings of the conducted research. Chapter 6 focuses on findings related to the first research question, while chapter 7 focuses on describing the findings related to the second research question. Chapter 8 discusses the findings and the implications of the results to managers of digital education startups. Finally, chapter 9 summarizes the key findings and concludes the thesis. s

2. Characteristics of Digital Education

2.1 Unique Features of Education Markets

The education industry differs substantially from many other industries. This is due to several unique characteristics that education industry obtains. First, primary education globally is operated both by public and private schools. Verger, Lubienski, & Steiner-Khamsi (2016) identified that education is being increasingly globalized and managed by private organizations, and that education is increasingly considered as a sector for investment and profit-making. They also suggested that nowadays endeavors in education business can be taken into global scale, and are therefore investing into education companies is becoming appealing to investors. Furthermore, GSV Advisors (2012) estimated that the global education market will reach the size of 6,4bn USD in 2017 with 7% compounded annual growth rate. Also, the corresponding estimated growth rate for eLearning market is 23%.

From a company point of view, the division between public and private schools makes the industry unique, because these two sectors differ in several ways including their objectives and funding. However, these two sectors cannot be analyzed as isolated sectors or industries, because the private sector is strongly shaped and enabled by public policymaking (Verger et al., 2016). Indeed, the existence of private sector in education is dependent on the national regulation and policies. Therefore, the popularity of private sector deviate between countries.

Another major characteristic of education industry is the existence of national education systems and national curricula. The national education systems have been studied widely from several different perspectives (e.g. Astiz, Wiseman, & Baker, 2002; Pike, 2000). Also several comparative analyses have been conducted over the past few decades (e.g. Gorard & Smith, 2004; Thieme, Giménez, & Prior, 2012). Thieme, Giménez, & Prior (2012) conducted a comparative analysis of the efficiency of national education systems. They studied 54 countries' education systems and measured the educational achievement and educational inequality, which acted as measures of performance. They argued that education systems differ in use of resources, learning environment and management. However, their findings showed

that it is possible to obtain high learning achievement with low inequality levels (as in Finland, South Korea, Hong Kong and Canada). In addition, Astiz, Wiseman, & Baker (2002) studied the impact of globalization to curricular control in national education systems. According to their empirical study, some countries such as Spain had emphasized those areas in national curriculum that were associated with national concerns. These areas included Spanish language and history, mathematics and science. The national education system and the curriculum is created to fit to the local culture and to address the national concerns and needs for education (Astiz et al., 2002).

Pike (2000) emphasized that classifying countries education systems and national models cannot be done because each country obtain very unique characteristics in their educational model. He also highlighted that national education models are driven by the local culture, values and national ideology. Since the education market is not homogenous, the market characteristics cannot be generalized in detailed level. Therefore, it is also important to identify the major differences between the education markets between different countries and regions. To conclude, the education industry differs from other industries by several unique characteristics. The major characteristics include the division between private and public schools, government policies, as well as the national education systems and curricula. All of these characteristics are driven by the selected market and they have major impact on the companies and their operations in different markets. The described industry characteristics have to be taken into account in internationalization strategy of a company. Next, the chapter continues to discussing purely the digital education and the current state of the digital education industry.

2.2 Current State of Digital Education

In the late 1990s, several governments developed strategies and made investments regarding ICT in education (Pelgrum, 2001). Therefore, number of international comparative studies (e.g. Plomp & Voogt, 2009; Wastiau et al., 2013) have been conducted to investigate the pedagogical benefits and learning outcomes of integrating ICT in classroom teaching. Findings suggest that ICT support the reform of education, which aims to respond to the needs of the 21st century's knowledge society

(Dede, 2000). In addition, Fu (2013) identified several concrete benefits of ICT use in education including access digital information efficiently, support student-centered learning, produce a creative learning environment, promote collaborative learning, offer opportunities for critical thinking, improve teaching and learning quality and support teaching by facilitating access to course content.

According to Becta (2008), the percentage of teachers who use ICT 'rarely or never' is still very high. However, in their extensive study of 190,000 students, teachers and head teachers in Europe, Wastiau and her colleagues (2013) found that over 70% of the teachers expressed a positive opinion toward the relevance and impact of the use of ICT in education. Thus, the barrier of adopting ICT in classroom teaching seems not to be negative attitudes of teachers. Many studies have been therefore conducted to investigate different barriers of integrating ICT in education (e.g. Hennessy, Ruthven, & Brindley, 2005; Yildirim, 2007) and the factors that stimulate teachers to use ICT (Kreijns, Van Acker, Vermeulen, & van Buuren, 2013).

Indeed, the supportive evidence of ICT improving the learning outcomes in education and the fast-growing market in education and eLearning provide appealing opportunities for companies focusing on digital solutions in education, especially to those that obtain capabilities to expand into global scale. It is however essential for these companies to understand the benefits and restrictions of ICT. The relationship between IT firms and education system is often informal, which may reflect in inappropriate purchases that do not match the school's educational needs (Verger et al., 2016). Understanding the educational needs of schools enables companies to develop best-fitting solutions for them. In the next sections the benefits of ICT in education, the main barriers of adopting the ICT in classroom teaching and strategies to eliminate these barriers are discussed.

2.3 Importance of ICT in Education

In the current knowledge society the future workforce need to have necessary skills and abilities to live and compete in the information age (Yildirim, 2007). Therefore, schools are expected to prepare students to become self-driven and proactive members of knowledge economy (Yildirim, 2007). In addition, Bidin & Ziden (2013)

argue that the new generation, 'digital natives' (Prensky, 2001), obtain specific kind of characteristics, which influence how they learn. These characteristics include preferring multimedia over written text, thinking and processing information differently than their predecessors, being collaborative, multitasking, and wanting to have fun at work and school. Therefore, Bidin & Ziden (2013) suggest that teaching and learning should be suited according to the experience and abilities of this new generation. Additionally, Bransford, Brown, & Cocking (2000) argued that traditional teaching environments are not suitable for preparing students for the challenges in the information age, and integration of ICT solutions is necessary in the required transform.

Several studies have been conducted to investigate the benefits of adopting ICT in classroom teaching. Findings suggest that ICT make acquiring knowledge and solving problems easier (Brush, Glazewski, & Hew, 2008), enables collaborative learning (Koç, 2005), motivates and engages students to active and self-directed learning (Hadley & Sheingold, 1993), produces creative solutions for different types of learning practices (Fu, 2013), and use of ICT develop students skills in critical thinking (McMahon, 2009). Increased motivation has been identified as one of the most fundamental benefits of integrating ICT in teaching (Savill-Smith & Kent, 2003). This finding is rational, since traditional evaluation methods such as tests and quizzes may not detect the progress in several benefits mentioned above such as skills in critical thinking. Yet, it has been argued that measuring whether technology increases student achievement is challenging (McMahon, 2009). On the other hand, ICT enables teachers to use new kinds of methods to stimulate students' curiosity and learning. Fu (2013) argued that teachers need to become more creative in customizing and adapting their own materials. For example, one such manner of customization could be adding knowledge and insights of local culture and history as part of the general learning materials. This kind of customization could stimulate students' curiosity and consequently increase their motivation.

Few researchers have also indicated some criticism towards the suggested benefits of ICT (Fu, 2013; Livingstone, 2012; Verger et al., 2016). For example, Livingstone (2012) highlighted the lack of clarity in pedagogical implications of the digital age and

use of ICT. Indeed, knowledge being available for the students shifts the focus from memorizing knowledge to learning how to find and use relevant knowledge (Collins & Halverson, 2010). Therefore, teacher's role changes radically from passing expertise to students (Collins & Halverson, 2010) to guide in finding, analyzing and evaluating knowledge (Fu, 2013).

Overall, several positive implications have been associated with the use of ICT in education. Nonetheless, large portion of teachers have not integrated ICT in their teaching practices in any form (Becta, 2008). Therefore, extensive amount of research has been conducted to study the barriers and challenges that hinder the integration of ICT in the teaching (e.g. Collins & Halverson, 2010; Iding, Crosby, & Speitel, 2002; Pelgrum, 2001; Wastiau et al., 2013; Yildirim, 2007). In addition, Kreijns and his colleagues (2013) addressed the question in the context of Digital Learning Materials (DLMs), which are the particular interest of this study. This study also follows Kreijns and his colleagueus' (2013, p. 217) definition of DLMs: "DLMs must be understood in a broad sense, including video clips (e.g., a YouTube fragment), simulations (e.g., simulation of an electronic circuit), illustrations (e.g., photos and drawings), and computerized tests". These barriers are discussed thoroughly in the next section, because addressing the challenges of adopting ICT in teaching is essential for success of companies producing digital learning materials.

2.4 Barriers of Integrating ICT in Teaching

Several classifications for the barriers to ICT integration in classroom teaching exist in the literature. Ertmer (1999) classified the them into extrinsic and intrinsic barriers, whereas Pelgrum (2001) divided the barriers into material and non-material, and Fu (2013) used three different categories in his article: (1) student perspective, (2) teacher perspective, and (3) administrative and ICT infrastructure perspective. Since the purpose is to identify the key barriers that companies producing DLMs need to take into account, Fu's (2013) classification is the best-fitting option for the barrier classification for this study.

Barriers from student perspective. According to Wastiau and her colleagues (2013) digital resources such as exercise software, online tests and simulation are still rarely

used during lessons. Their finding also suggest that ICT-based learning is happening more at home than in school, and that in EU students are confident to use internet safely. On the other hand, Frederick, Schweizer, & Lowe (2006) argued that barriers to integrate technology in teaching included poorly teaching environment, insufficient time to become proficient with new software, anxiety over standardized test results and inveterate concepts on what and how students should learn. This finding supports Livingstone's (2012) argument of lack of clarity in pedagogical implications of the digital age and use of ICT. In addition to these barriers, Whelan's (2008) study indicated that in some areas students do not have access to ICT at home, which generates risk of some students becoming excluded. Also, Whelan (2008) pointed out that students' lack of technical skills and low level of student engagement to online learning are key barriers for use of ICT in teaching. These findings are partially supported by Frederick and his colleagues (2006), but appears to contradict partially with Wastiau and her colleagues' (2013) findings of students' confidence in their digital skills. On the other hand, Whelan (2008) conducted his study in South-Pacific, whereas Wastiau her colleagues (2013) surveyed schools in Europe. This may indicate that there are significant differences in perception of barriers of ICT integration in different regions (Whelan, 2008).

Barriers from teacher perspective. The barriers of in ICT in teaching from the teacher perspective are studied extensively by several researchers. Lack of confidence using ICT in classroom has been identified as one main barriers of integrating ICT in teaching (Fu, 2013). However, the fear of technical problems in classroom (Yildirim, 2007) is one of the main reasons for the lack of confidence. According to Kreijns and his colleagues (2013), teachers who feel they lack sufficient ICT skills experience more external pressure to use digital learning materials in teaching. Several findings also suggest that anxiety and lack of confidence are stemming from limitations in teachers' ICT knowledge (Balanskat, Blamire, & Kefala, 2006; Wastiau et al., 2013).

The lack of competence in integrating ICT is two-fold: The knowledge barriers are both in technological competences and in pedagogical content knowledge. Findings indicate that teachers are suffering from low software competence (Yildirim, 2007), deficient skills of managing digital materials (Frederick et al., 2006) and limited

knowledge of existing ICT materials (Iding et al., 2002). In his study, Yildirim (2007) found that teachers use rarely ICT for encouraging students for critical thinking, but use technology mostly for preparing tests and handouts. According to Pelgrum (2001), the lack of technical competence is the main barrier for teachers' integration of ICT in their teaching. From the pedagogical point of view, teachers do not have concrete ideas how to integrate technology in classroom teaching (Al-Bataineh, Anderson, Toledo, & Wellinski, 2008) and what are the benefits of doing so (Yildirim, 2007). In addition, as Frederick and his colleagues (2006) argued that teachers do not know the concepts of how the students should learn.

Several findings indicate existence of barriers, which cause teachers' negative attitudes toward ICT. Standardized tests cause anxiety to students, because using ICT may not reflect in high scores in tests (Frederick et al., 2006). Teachers have pressure to succeed in standardized tests such as national examinations (Liu & Szabo, 2009), which may discourage teachers of integration ICT in teaching. Both teachers and schools are often evaluated according to tests scores rather than usage of ICT (Yildirim, 2007). Additionally, teachers are generally not provided with incentives, clear goals and recognition of using ICT in their teaching (Al-Bataineh et al., 2008; Yildirim, 2007), which results in ICT integration only by those teachers, who are internally motivated to improve their teaching and make changes.

Barriers from administrative and ICT infrastructure perspective. A number of administrative barriers hinder the integration of ICT. These barriers include lack of technical support and training (Kreijns et al., 2013; Wastiau et al., 2013; Yildirim, 2007), lack of financial support (Liu & Szabo, 2009), and lack of time to orientate oneself with digital materials (Brush et al., 2008). In addition, Hennessy and her colleagues (2005) suggest that offering opportunities for exploration and familiarization with technology is essential for building teachers' confidence. Especially the lack of support and training in ICT has been identified as main barrier to integrate ICT in teaching. This is a logical finding, because lack of support and training reflects in insufficient confidence and competence to use ICT, which were identified as two main barriers from teacher perspective. Finally, Fu (2013) argued

that teachers' pressure to cover particular content may result in teacher's reluctance to allow students explore knowledge on their own.

Wastiau and her colleagues' (2013) extensive survey indicated several factors in infrastructure including number of devices, availability and speed of broadband that affects to the adoption of ICT in teaching. According to their survey results, all of these factors have significantly improved at EU level average from 2006 to 2011, but the differences between countries are enormous. For example, in Nordic countries (Norway, Sweden and Finland) almost all schools (over 90% of students at grade 4) were categorized as "highly digitally equipped", whereas in some countries such as Poland, Turkey, Romania, Italy and Slovakia only few schools were in this category (less than 10% of the students at grade 4). The highly digitally equipped school referred to high equipment level, fast broadband and high connectedness. On average in EU, there are between three to seven students per computer (Wastiau et al., 2013). These numbers are still very high, because adoption of DLMs would require almost 1:1 device/student ratio. According to Wastiau and her colleagues (2013), the practitioners consider the weak equipment levels as the major obstacle to integrate ICT in classroom teaching.

2.5 Strategies for Eliminating Barriers to ICT Integration

While several barriers have been identified in the literature, many scholars have also suggested strategies to eliminate these hindrances. Wastiau and her colleagues (2013) argued that teachers and school heads are already convinced of relevance of ICT in teaching, but the need is rather to equip teachers with digital teaching competences. They also emphasized the importance of digitally supportive and equipped schools, which refer to both supportive infrastructure and policies for digitalization.

Several researchers also suggest that schools should arrange supporting activities to promote teachers' confidence and knowledge. These activities include ICT related workshops (Hennessy et al., 2005), skills based training programs (Kreijns et al., 2013) and tailored in-service training at the local level (Yildirim, 2007). Kreijns and his colleagues (2013) highlighted the importance of repeated training rather than it being a one-time activity. In addition to competence based training, several

researchers indicate the need for adequate technical support (Hennessy et al., 2005; Liu & Szabo, 2009; Yildirim, 2007). Having adequate technical support and training of technical skills available are generally considered to increase teachers' confidence to use ICT as a part of classroom teaching. In addition, Honan (2008) called for implementation of organizational and structural changes to provide teachers with freedom to explore different teaching methods with DLMs.

One of the greatest barrier to overcome is the standardized tests, which emphasize memorized knowledge rather than critical thinking and understanding the knowledge that is available (Frederick et al., 2006). Therefore, there is a need to change evaluation methods to engage students with critical thinking activities. Finally, Goktas, Yildirim, & Yildirim (2009) propose several recommendation for eliminating barriers including clear technology plans, in-service training, strong infrastructure, technical support, and teacher role models. They argue that it is important to have role models in school to demonstrate how and why ICT should be used in classroom teaching.

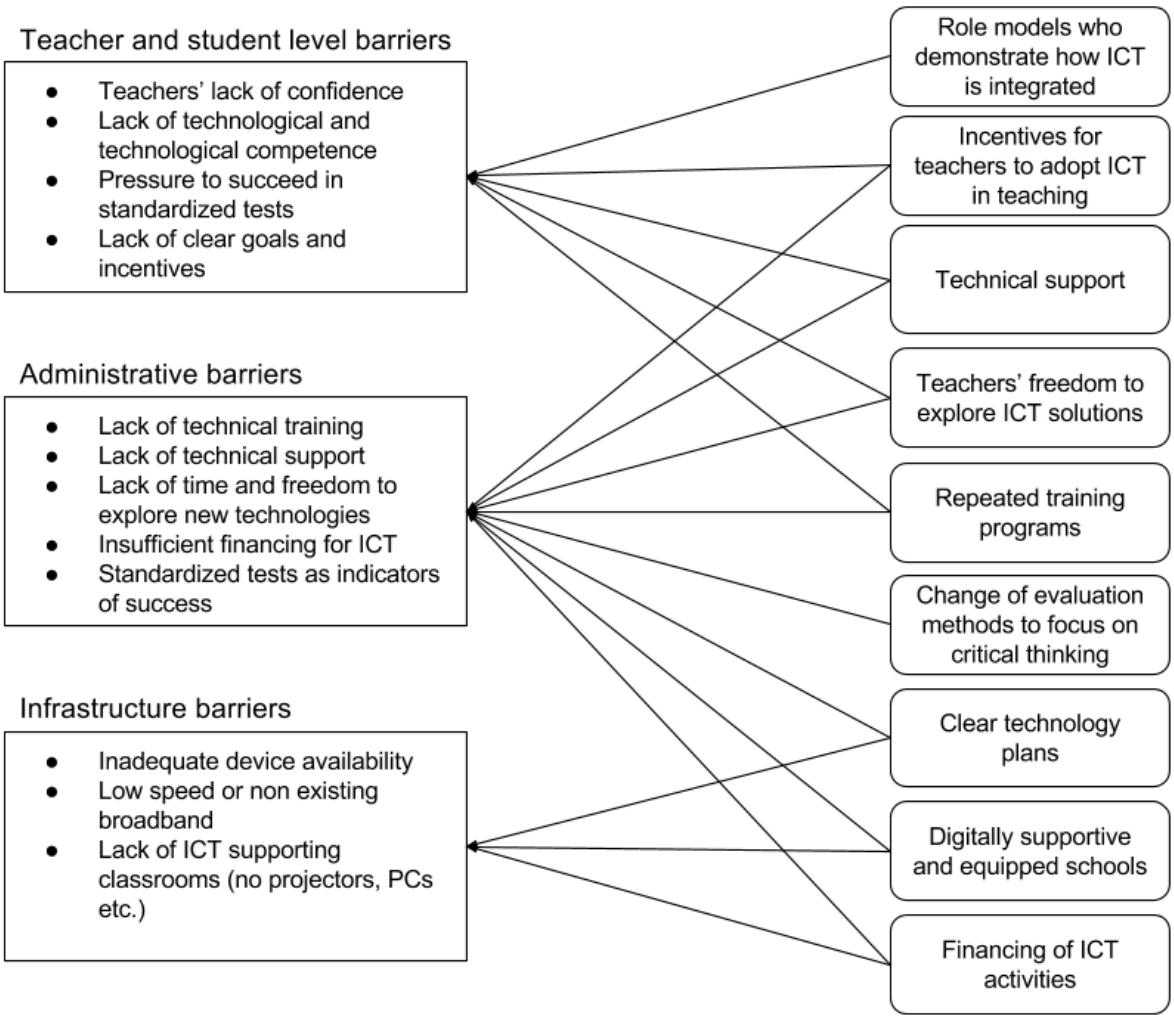

Figure 1: *Strategies to eliminate barriers of integrating ICT in classroom teaching.*

From the company point of view understanding the key determinants of customers' willingness to adopt ICT in teaching is important. However, the barriers of integrating ICT in classroom teaching do not fully cover all factors that affect to the use of DLMs. For example, Downey, Wentling, Wentling, & Wadsworth (2005) argue that national culture has impact on how e-learning systems and products should be designed. They make distinction between collectivist and individualistic cultures and the corresponding needs and desires for the e-learning systems. According to their findings, strong collectivist cultures might require products, in which group work, collaboration, and socially oriented approaches are more dominant. On the other hand, individualistic cultures might be willing to give more emphasis on learners' freedom in terms of creativity and expression of knowledge gained, or more competitive learning environments (Downey et al., 2005). From the company point of

view, these findings have direct impact on what is the best design for the DLMs in different markets. Other factors that have impact on the use of DLMs are more broad and not specific for digital learning materials. Therefore, these factors are identified in the next chapter, which describes theories of internationalization strategies.

3. International Entry Strategies for Startups

3.1 International Entry Strategies

Globalization has enabled international expansion also for small companies, to whom outward operations may offer long-term competitive advantage (Ruzzier et al., 2006). Root (1994) identified five types of international entry strategies ('entry modes'); export, licensing, franchising, joint ventures and wholly-owned subsidiaries. Modes are often classified according to the need of resource commitments and level of control over the operations (Johanson & Vahlne, 1977). Pan & Tse (2000) categorized the strategies into non-equity modes and equity modes. The equity modes include joint ventures and wholly-owned subsidiaries, which are generally labeled as Foreign Direct Investments (FDI). However, most small companies do not obtain required capital to use FDI as an entry mode (McAuley, 1999), and therefore tend to select low risk and low capital commitment entry modes (Burgel & Murray, 2000; Coviello & Munro, 1997; Gabrielsson & Kirpalani, 2004; McDougall, Shane, & Oviatt, 1994). Small companies are not willing to take the risk of investing heavily in a single country, but rather start exporting with a low commitment. According to Johanson & Wiedersheim-Paul (1975), companies internationalize with increasing commitment, starting with low commitment modes and progressively shifting to higher commitment modes. Therefore, firms commonly internationalize by starting with exporting or foreign distributors and then over time increase the commitment and set up a foreign subsidiary. On the other hand, small firms' entry modes may be shaped by the existing relationships with other firms (Crick & Jones, 2000) that may generate alternative opportunities for market entry (Gabrielsson & Kirpalani, 2004).

Small firms are also limited in their ability to grow abroad because of insufficient information and know-how (Kaufmann, 1995). Sousa & Novello (2014) argued that flexibility and minimal capital requirement make exporting the most attractive entry mode for small companies. Given these resource constraints that startups encounter, entering a new market by exporting seems to be the best strategy if licensing and franchising do not fit into the business model. Following Johanson & Wiedersheim-Paul's (1975) findings, the foreign subsidiaries are often established after operating in lower commitment mode such as exporting. While most of the studies are considering

exporting as an attractive strategy for small and medium-sized enterprises, it is even more attractive for startups that cannot make even moderate investments in single countries. Therefore, the next sections will examine startups' entry modes from multiple theory perspectives, including the export performance framework, international new ventures, and networks and cooperative strategies.

3.2 Export Performance Framework

Exporting is major internationalization strategy for many companies and therefore several researchers over the past few decades have built the framework to explain the antecedents that contribute to export performance (e.g. Cavusgil & Zou, 1994; Chen et al., 2016; Cooper & Kleinschmidt, 1985; Sousa, Martínez-López & Coelho, 2008). In their early study, Cooper & Kleinschmidt (1985) suggested that export performance is related to the type of export marketing strategy elected. They identified three strategic directions including product adaption, segmentation strategy, and level of world orientation. However, Cavusgil & Zou (1994) argued that export marketing strategy is a function of product adaption, promotion adaption, foreign distributor support and price competitiveness. These four factors are widely agreed to be the key determinants of selecting the export marketing strategy. Yet, whether to standardize or adapt the export marketing strategy is the most discussed topic in the recent export marketing strategy literature (Chen et al., 2016). For example, Brouthers, O'Donnell, & Keig (2013) argued that adapting product's overall image (including brand name, packaging etc.) has positive effect on export performance. On the other hand, firms should jointly consider both the internal characteristics and external environment while developing the export strategy. Pla-Barber & Alegre (2007) emphasized that firms can achieve superior export performance if the selected strategy is aligned with the available resources. Additionally, Katsikeas, Samiee, & Theodosiou (2006) argued that most studies have neglected strategic fit as a determinant for selection of export marketing strategy.

Export marketing strategy can be considered as a firm's response to the interplay of internal and external factors (Cavusgil & Zou, 1994). In terms of the internal factors, many studies have investigated different firm and management characteristics' relation to the export performance. Findings of these determinants have been mixed.

For example, Bonaccorsi (1992) reported positive relationship between firm size and export performance, whereas Cooper & Kleinschmidt (1985) reported negative relationship, and Calof (1994) found no relationship between them. Other widely studied internal factors include firm's international experience (e.g. Cavusgil & Zou, 1994; Kirpalani & Macintosh, 1980), age/gender of management (e.g. Manolova, Brush, Edelman, & Greene, 2002), and education level of management (e.g. Davis & Harveston, 2000; Manolova et al., 2002). The underlying theory in the studies of internal characteristics is resource-based view, which suggest that firm's competitive advantage is based on firm's unique tangible and intangible resources, which cannot be perfectly imitated by competitors (Wernerfelt, 1984).

The key consideration in international activities is to whether to standardize export marketing strategy or adapt to the characteristics of foreign-market (Douglas & Craig, 1989). Also, Douglas & Wind (1987) argued that it is unrealistic to expect that a same export marketing strategy would lead to same results in different markets. The external factors affecting to the selection of export marketing strategy are divided into industry-level characteristics and country-level characteristics, although industry-level characteristics have been rarely studied (Chen et al., 2016). Lukas, Tan, & Hult's (2001) study highlighted the importance of environment-strategy co-alignment for firm's performance, which refers to adopting to the country/market-level characteristics. Also, Katsikeas and his colleagues (2006) emphasized the importance of strategic fit between the export strategy and marketing environment. However, only few studies have explored the environmental factors that affect to the selection of export strategy. Most studies have focused on factors such as competitive intensity (e.g. Sousa & Novello, 2014), psychic distance (e.g. Griffith & Dimitrova, 2014), regulatory environment (e.g. Zeriti, Robson, Spyropoulou, & Leonidou, 2014), and cultural distance (e.g. Griffith & Dimitrova, 2014).

In addition, Peng, Wang, & Jiang (2008) argued that institutional factors should be considered when making the strategic decisions on export operations. Their argument follows the institutional-based view (IBV), which suggests that institutional forces guide firm's strategic decisions (Dacin, Goodstein, & Scott, 2002). Furthermore, Katsikeas and his colleagues' (2006) findings indicated that the level of strategy

standardization is depending on similarity between markets in terms of regulatory environment, technological intensity and velocity, customs and traditions, customer characteristics, product's life-cycle stage, and competitive intensity. The significance of these factors to selection of export strategy is supported by several later studies (Griffith & Dimitrova, 2014; Peng et al., 2008; Sousa & Novello, 2014; Zeriti et al., 2014). Therefore, country-level factors play essential role when selecting the best-fitting export strategy. The export performance framework is illustrated in Figure 2.

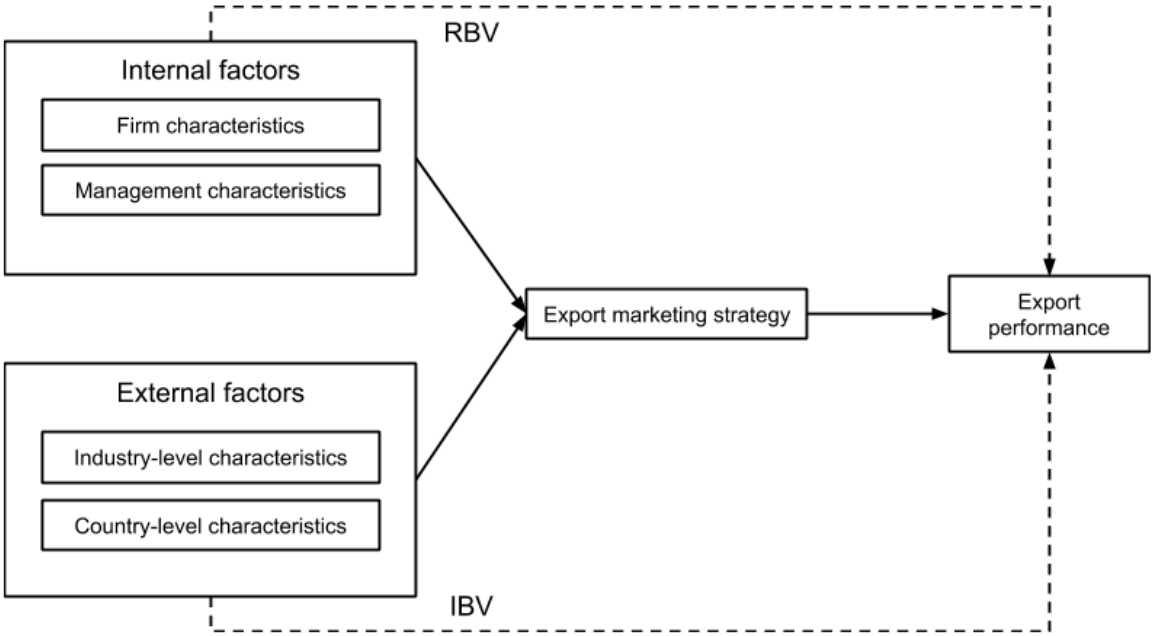

Figure 2: *Export performance framework* (Chen et al., 2016).

The export performance framework provides essential insights to understand what kind of opportunities exist for startups in digital education business to expand globally. In the next sections, theories related to international new ventures, networks, cooperative strategies are discussed. These theories complement the theory of export performance by providing insights of different market entry strategies eligible specifically for startups. Export marketing strategies that were presented in this section do not cover all possibilities for startups, because those are restricted to pure export activities. Especially cooperative strategies play often key role for small companies in their internationalization attempts (Coviello & Munro, 1997).

3.3 International New Ventures

Oviatt & McDougall (1994) noted that studies of internationalization have focused mostly on Multinational Enterprises (MNEs). However, they argued that established internationalization theories of MNEs are not fully applicable for small companies. Globalization has enabled the startups also to compete in the international markets. These startups are generally labeled as "International New Ventures" (INVs) or "born globals". Oviatt & McDougall (1994, p. 49) defined the international new ventures as follows *"a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries".* After this study, several scholars have studied different aspects of INVs.

Crick & Jones (2000) argued that INVs' process in market selection is two-fold. First, INVs identify the potential markets to enter. Then, secondly, they order the alternative markets according to their existing networks and relationships. Some studies have also noted that psychic distance is less meaningful criteria in selecting markets to entry for INVs than it is for other companies (e.g. Keeble, Lawson, Smith, Moore, & Wilkinson, 1998). Few studies have also noted that most INVs focus on serving a niche market rather than competing in a commodity industry. Even though INVs are have not fully restricted to niche strategy, findings suggest that most INVs offer highly tailored and cutting-edge products to serve a niche market (Crick & Jones, 2000; Keeble et al., 1998). Keeble and his colleagues (1998) also argued that INVs focus on market niches, because of their resource constraints to compete with large companies in commodity products. The niche focus has also effect on the selection of the market entry mode. Burgel & Murray's (2000) findings suggest that high degree of customization leads to exclusion of sales intermediaries. They argue that selling very customized products require tacit knowledge and therefore sales intermediary may not be the best option. Other widely studied topics are the internationalization speed, international intensity, and entry mode decision (Aspelund, Madsen, & Moen, 2007). The entry mode selection is major element of this study, and the related theories are therefore studied more thorough.

The choice of entry mode is one of the most crucial decisions for INVs in their internationalization efforts (Burgel & Murray, 2000). Since the INVs are faced with

extremely restricted resources, they select relatively low commitment entry modes (Burgel & Murray, 2000). Especially foreign direct investments are commonly out of the scope for INVs, because these strategies require both high commitment and financial resources (McAuley, 1999). However, Gabrielsson & Kirpalani (2004) argued that born globals tend to leverage more innovative entry strategies, which may include cooperation with other firms or strong reliance on the internet. Even though INVs financial resources may be extremely limited, they may obtain other valuable intangible resources. The existing network and relationships affect to INVs market selection (Crick & Jones, 2000), but the network may also provide alternative market entry modes (Coviello & Munro, 1997; Keeble et al., 1998). The next section therefore focuses on entry modes that are commonly enabled by networks and relationships.

3.4 Networks and Cooperative Strategies

In their study, Coviello & Munro (1997) found that successful growth of the case companies (small software firms) were result of cooperation with MNEs. The study revealed that market selection and entry mode was often guided by the large international companies. In addition, the INVs were able to leverage the MNEs' sales channels and relationships in their international growth. Finally, Coviello & Munro emphasized that new ventures should be aware of the speed that internationalization can occur through network relationships, and that cooperation and alliances often stem from both the formal and informal relationships of the entrepreneur.

Supporting these findings, Gabrielsson & Kirpalani (2004) suggested that born globals need some combination of two or more of following channels to flourish: MNEs acting as systems integrators, MNEs distributing born global products, networks, or internet. They argue that some MNEs continuously search for small companies that sell products or services that supplement their offering. Therefore, they may be also willing to support these ventures by providing funding, training, long-term supply contracts and other collaborative activities such as co-marketing of the products (Gabrielsson & Kirpalani, 2004). Other researchers have also noted that cooperative strategies are common for small companies (Kaufmann, 1995; Peng & York, 2001). Also, Coviello & Munro's (1997) argument of the importance of network relationships

and strategic alliances has received support from the study by Gabrielsson & Pelkonen (2008).

Burgel & Murray (2000) suggested that it may be beneficial for companies entering a foreign market to collaborate with possible partners in domestic market first. Cooperation in domestic market may be easier to begin with, and the experience gained from domestic cooperation may provide essential insights to successful cooperation in foreign markets. However, this idea was previously conceptualized by Korhonen, Luostarinen & Welch (1996), who studied the inward-outward patterns influence on the internationalization of small and medium-sized companies. They argued that establishing inward internationalization operations first may lower the uncertainties from the later outward operations. Inward operations may enable small companies to establish crucial relationships with other companies, learn from foreign markets and competition, and gain experience of international operations in general (Korhonen et al., 1996). Several other researchers have reported supporting findings that inward operations develop the firm's required capabilities for outward expansion (Coviello & Munro, 1997; Gabrielsson & Pelkonen, 2008).

On the other hand, few other studies have not been able to find positive support for the argument that cooperative strategies would have direct positive impact on export performance. Haahti, Madupu, Yavas, & Babakus (2005) suggested that knowledge intensity mediates the relationship between cooperative strategy and performance, but cooperation itself is not directly associated with performance. Therefore, their findings indicate that cooperative strategies enrich the knowledge base of small companies, which leads to improved performance. Their findings are supported by the findings of McGee, Dowling, & Megginson's (1995) early study, in which they proposed that firms benefit from experienced managers, who are able to learn from cooperative activities. Also Hamel (1991) argued that long partnerships or alliances will not directly lead to success.

The discussed studies have mainly focused on the cooperative activities with MNEs. However, new ventures tend to form relationships also with other stakeholders such as universities and research centers (Zahra, Matherne, & Carleton, 2003). Zahra &

Bogner (2000) argued that especially in technology-focused industries, new ventures should leverage the available external resources. They emphasize that acquiring knowledge from external resources may enhance venture's capacity to innovate highly differentiated products quickly and financially efficiently. Combined use of external and internal knowledge seems appropriate for new ventures, because born globals tend to market value-added offerings with high degree of differentiation and uniqueness (Keeble et al., 1998). Therefore, successful internationalization may depend on the how the new venture is capable of using external resources to supplement its offering. The next section summarizes all the findings presented in this chapter by illustrating the general framework for international entry strategies for startups.

3.5 Synthesis: International Entry Strategies for Startups

Burgel & Murray (2000) argued that the choice of the entry mode is the most essential decision for small company's international activity. As defined in the beginning of this chapter, Root (1994) identified five different international entry strategies: exporting, licensing, franchising, joint ventures, and wholly-owned subsidiaries. While these entry modes are common for all companies, literature of international new ventures suggests that new ventures tend to use alternative entry modes, which may include cooperation with other parties or creative use of internet (Coviello & Munro, 1997; Gabrielsson & Kirpalani, 2004). In addition, some of the identified entry modes are not relevant options for small and resource constrained companies. Several scholars suggest that small companies usually select low commitment and flexible entry modes (Burgel & Murray, 2000; Coviello & Munro, 1997; Gabrielsson & Kirpalani, 2004; McDougall et al., 1994). Finally, Sousa & Novello (2014) argued that for small companies, exporting is the most attractive entry mode.

By following the discussed theories of international entry modes, international new ventures, cooperative strategies, networks, and exporting, this chapter is concluded by illustrating the framework for international entry strategies for startups. This framework combines the knowledge and theories of all the discussed topics and summarizes the findings of the literature. Figure 3 illustrates the generated framework.

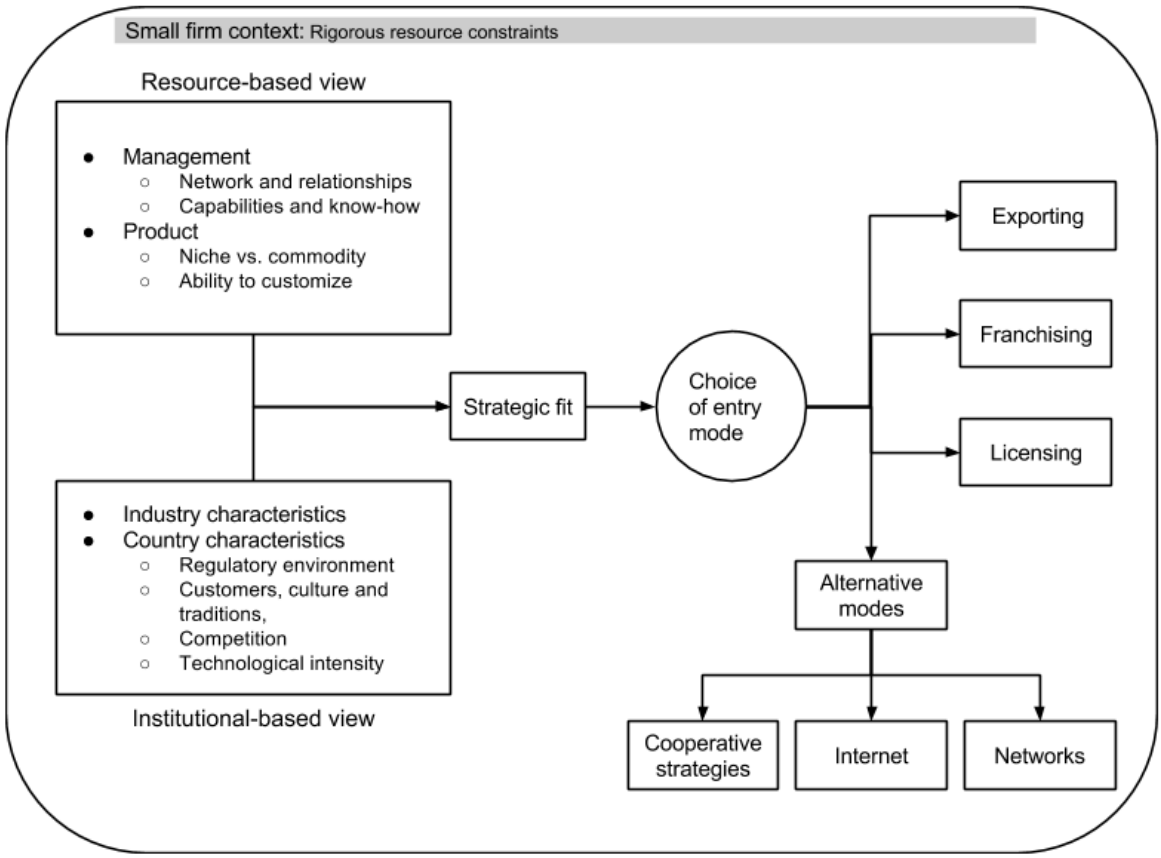

Figure 3: *Framework for international entry mode selection for startups.*

The next chapter concludes the literature review by presenting the full theoretical framework of this study that combines the theories discussed in chapters 2 and 3.

4 Theoretical Framework of the Study

The previous chapters have considered both characteristics of digital education and different international entry strategies for startups. Chapter 2 discussed the key characteristics of digital education and barriers of integrating ICT in classroom teaching. Chapter 3 discussed theories of international entry strategies in several perspectives, including direct exporting, INVs and cooperative strategies. These two viewpoints compose the theoretical framework of this study. The framework is composed of different factors that affect to the selection of the market entry strategy. The study is concerned especially with startups entering new international markets in digital education business.

Following the defined research questions, the question *Q1* focuses on identifying the key market-level factors that have impact on the decision of the market entry strategy. Previous literature provides insights on these market-level factors that are particularly important in the digital education. The literature of export performance and ICT in education suggest that the following market-level factors influence to the selection of market entry strategy: barriers of integrating ICT in classroom teaching, culture and traditions, regulatory environment, competition, customer characteristics, and technological intensity and use of ICT. Furthermore, the barriers integrating ICT in teaching include various problems such as teachers' lack of confidence and competence, financial constraints, lack of technical and pedagogical support, and insufficient infrastructure (see Figure 1 for thorough set of barriers). Also, Whelan (2008) argued that the perceived barriers seem to differ between different countries and regions.

The second research question, *Q2,* focuses on selection of best-fitting market entry strategy according to the market level characteristics. The studies of export performance framework suggest that the main export marketing strategies include price adoption, product adoption, promotion adoption, and distributor support. In addition, studies of INVs suggest, that new ventures tend to leverage their existing networks and use cooperative strategies in their internationalization activities (Coviello & Munro, 1997; Gabrielsson & Kirpalani, 2004). Therefore, decisions on these components compose the company's market entry strategy. In addition to the

market-level characteristics the firm's resources play key role when selecting the best-fitting entry strategy (Peng et al., 2008). For example, ability to use cooperative strategies and market selection is much dependent on the existing network and relationships that the managers obtain (Coviello & Munro, 1997; Keeble et al., 1998). Therefore, the framework of this study combines the resource-based view of the company and the market-level characteristics while considering the best-fitting market entry strategy. Figure 4 illustrates the theoretical framework of this study.

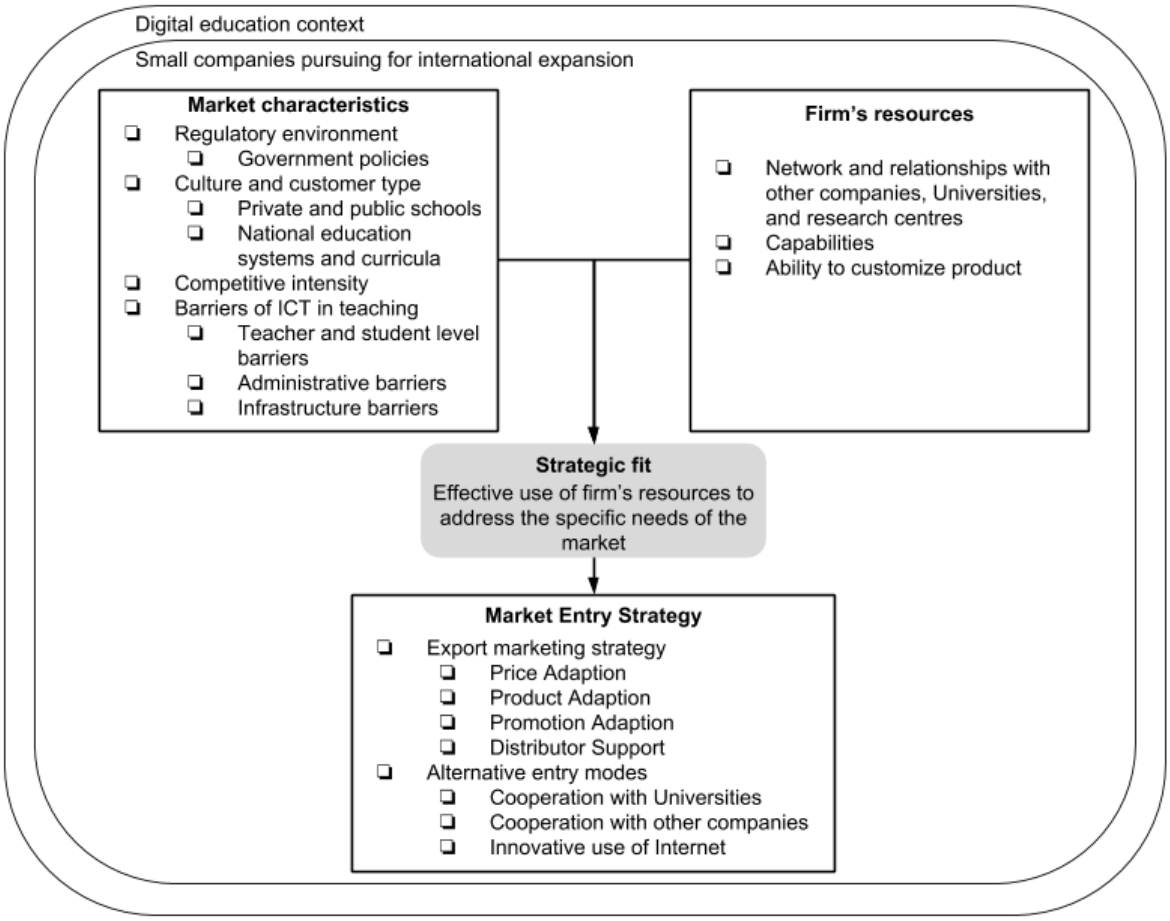

Figure 4: *Theoretical framework of the study.*

This study aims to address the connection between the market-level characteristics, firm's resources and the selection of market entry strategy. The objective is two-fold. First, the study aims to identify the market-level factors across different countries that have effect on the market entry strategy selection. Then, secondly, the study aims to suggest the effective market entry strategies for entering a new market in digital education business. The theoretical framework guides the study of this thesis and

enables maintaining the focus on the most essential themes. The framework helps also structuring the findings into clear form. The next chapter describes the methods that were used in the research. The chapter introduces the research context and the features of the data set. The chapter also describes the methods used in data collection and data analysis.

5. Research Methods

5.1 Research Context

The aim of this study is two-fold. The first objective is to identify the key market characteristics that contribute to the selection of market entry strategy in digital education business, and the second is to identify the best-fitting market entry strategies given the specific market context. In order to study these issues, the research is divided into two parts; (1) investigation of market-level factors, (2) investigation of market entry strategies and their feasibility.

As described in theoretical framework of this study, both external (market-level) and internal (firm-level) factors play essential role when selecting the most appropriate market entry mode. The market-level factors are often unique in each industry according to the type of business, customers and several other factors. In digital education industry, several market-level factors shape the opportunities and hindrances that companies may face while entering the market. Especially financial constraints, lack of knowledge, poor infrastructure, cultural differences, and complex regulatory environment may have effect on the selection of firm's market entry strategy. Therefore, understanding these market characteristics is essential for those companies that consider their market entry strategy. The first part of this study aims to shed light on these market characteristics by conducting expert interviews.

While the external factors shape the choice of firm's market entry strategy, also firm's internal factors influence on this decision. As described in the theoretical framework, company's available resources put limits to the selection of market entry strategies. Especially for startups, the managers' network and relationships may enable companies to leverage alternative strategies to enter the market. Also, startups are very restricted both in their available financial resources and know-how to enter a new market. Therefore, understanding the element of company's resources while investigating the appropriate market entry mode is essential. To reach the objective of matching the best-fitting market entry strategies to specific market-level factors, the study needs to cover also investigation of firm-level factors. Thus, the second part of this study is concerned both with the firm-level factors and strategic approaches of a

set of companies. To investigate these factors and strategic approaches, interviews were conducted to the managers of startups. The next section discusses the selected methodological approach of this study in more detail.

5.2 Methodological Approach

Qualitative methods are generally used to understand the reasons behind causal relationships (Eisenhardt, 1989). Therefore, qualitative study fits well in examining strategic decision-making, such as selection of market entry strategy, and the contributing factors. In this study, interviews were selected as the qualitative method to gather empirical evidence of the market entry strategies and their antecedents. The empirical nature of the topic matter requires in-depth information of experiences from international education markets. Conducting in-depth interviews with open-ended questions and follow-ups allow interviewee to discuss topics that may not be evident for the researcher. Therefore, such interviews were conducted with set of experts and companies to gain insights of such experiences. In order the results being reliable, the data cannot be limited to single company or a single person. Thus, the study included interviews not only with experts in international education markets and ICT, but also with companies pursuing internationalization in the field of digital learning materials. This two-folded approach enables also addressing both research questions of this study. The purpose of the expert interviews is to gain knowledge of key determinants and market requirements in different markets in digital education. In addition, the experts may have ideas for appropriate strategic approaches in specific markets. Therefore, the experts may be able to address both research questions. However, the purpose of company interviews is to gain knowledge of different market entry strategies that the companies have elected and the reasons behind the strategy selection. The aim is to address both research questions with these two sets of interviews. The methodological approach to address the research questions is illustrated in Figure 5.

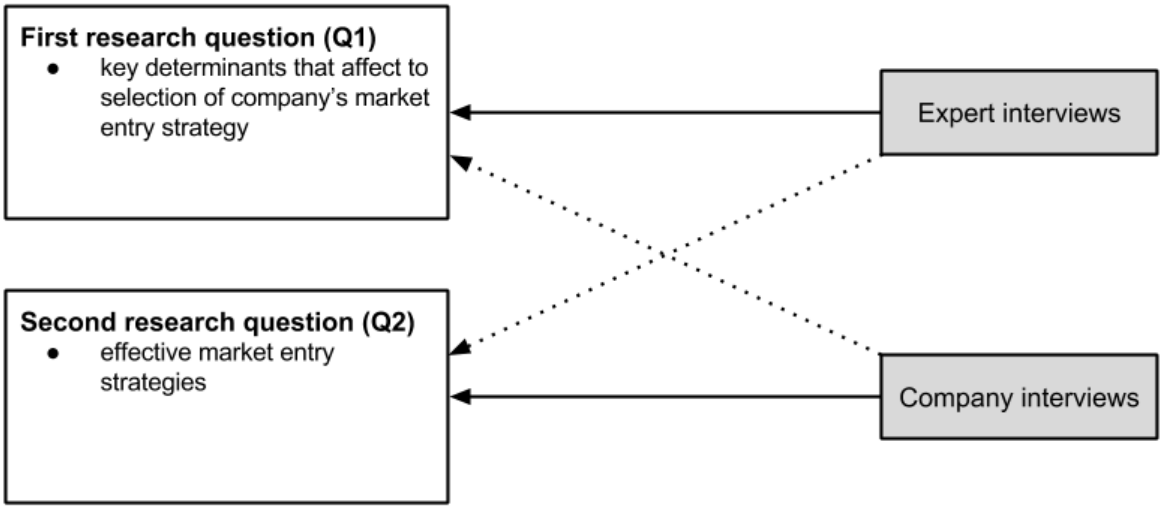

Figure 5: *Collection of empirical evidence to address the research questions of this study.*

The selected methodological approach included two sets of interviews as described above. In the next section the details of the interviewees and the data collection procedures are discussed in detail.

5.3 Data Collection

In total, 8 expert interviews and 7 company interviews were conducted during March and April 2017. Most of the interviews were carried out by using Skype, but few company interviews were carried out face-to-face. All the interviews were recorded and transcribed, forming the raw data for the analysis.

The expert interviews varied in length between 35 to 55 minutes. The variation in length was mainly driven by the area of expertise and the amount of knowledge and experience in the topic matter. Some interviews focused only on specific topic that was the area of expertise for the interviewee. For example, few experts obtained knowledge specifically of ICT, but were not familiar with any specific education market. Therefore, the interview focused only on the questions regarding ICT and not those that were focused on market characteristics in some country or region. Seven experts were Finns and one with other nationality. However, all the interviewed experts had experience of the topic from Finnish point of view (Finland being the domestic market). Experts for this study was selected to cover the topic as thoroughly as possible. Since single experts may not be able to cover the entire topic, experts with

a little bit different background were selected to get insights from as many perspectives as possible. The details of conducted expert interviews are presented in Table 1. The expert interviews included open-ended questions with follow-ups. This approach enabled interviewee to provide new and unpredictable insights, while the interview was not constrained by strict set of questions.

Table 1: *The details of each conducted expert interview.*

Expert	Area of expertise	Interview length	Interview date
Expert 1	Education industry, markets in Western Balkan and Sub-Saharan Africa	47:55	21/3/2017
Expert 2	Education industry, markets in Asia, Middle East and Latin America	52:15	23/3/2017
Expert 3	ICT and DLM solutions in Finland	34:58	24/3/2017
Expert 4	Education industry, ICT solutions in global scale	38:19	27/3/2017
Expert 5	Education industry, several regions around the world	54:55	30/3/2017
Expert 6	Education industry, markets in India, Middle East and Africa	47:50	5/4/2017
Expert 7	Education industry, export of digital learning technologies	53:21	5/4/2017
Expert 8	Consulting small education companies in their internationalization activities	52:33	28/4/2017

The company interviews were conducted for seven different companies pursuing international expansion in digital education. The interviewees were executive directors in the company or purely responsible for internationalization activities. All the companies were either already operating in international markets or planning to enter new markets soon. All companies were Finnish and regarded Finland as their domestic market. Therefore, the data sample includes only companies with certain kind of background. In education industry, the company background or domestic country may have significant impact to the international success because of the image that country's education generally obtains. Especially international tests such as PISA test may have impact on the image of the country, and therefore also to the company that has its roots in the same country. The selected sample companies were those, which had put the most efforts in internationalization activities and therefore had ability to contribute. Many Finnish companies in digital education sector are still at the stage that internationalization activities are not timely matter yet. Thus, the sample data set was limited to relatively small number of companies. On the other hand, all

the companies in the sample data set were able describe their experiences in detail and had a lot experience of the topic matter.

The company interviews lasted between 38 to 57 minutes. The focus of the interviews was to discuss how the company had or were planning to enter new market and what were the reasons behind their strategic decisions. In addition, few questions focused on determining the company's available resources, which must be considered when selecting the effective market entry strategy (see Chapter 4). The details of the conducted interviews are presented in Table 2.

Table 2: *The details of conducted company interviews.*

Company	Stage in internationalization	Number of employees	Position of the interviewee	Interview length	Interview date
Company 1	5 pilots in 5 different countries. Negotiating the first contract.	3	CEO	52:02	3/4/2017
Company 2	Discussions and negotiations held in several countries. One contract, which was later cancelled.	1-3	CEO	43:51	4/4/2017
Company 3	Clients in +15 countries, key focus on further expansion in two countries.	7	CEO & CTO (COB)	50:42	11/3/2017
Company 4	Several customers all around the world, key focus on further expansion in two continents.	11	CEO	52:57	12/3/2017
Company 5	Clients in several countries. First contracts with large clients in negotiation in few countries.	14	CEO	38:33	18/4/2017
Company 6	First launch done and next coming up soon. Target to expand to several continents in next few months.	18	COO	56:41	26/4/2017
Company 7	First pilots starting in next autumn, several conversations in several countries.	10	CEO	43:03	27/4/2017

All the companies were operating in several foreign countries. The specific countries that each company had entered are not revealed to maintain the anonymity of the

companies. However, the study of this thesis is very much related to the country characteristics, and it is therefore important to illustrate the country coverage of the sample companies. Table 3 illustrates the split between the different countries that the companies have entered.

Table 3: *List of countries in which the sample companies were operating.*

Country	Number of operating companies
United Arab Emirates	5
Singapore	4
USA	4
Brazil	2
China	2
India	2
Saudi Arabia	2
Slovakia	2
Belgium	1
Canada	1
Mexico	1
Netherlands	1
Pakistan	1
Qatar	1
Spain	1
Thailand	1
United Kingdom	1

After conducting the interviews, the recordings were transcribed. These transcriptions acted as raw data for data analysis. The data analysis procedures and methods are discussed in next section.

5.4 Data Analysis

The data analysis in this research followed the Gioia methodology (Gioia et al., 2012). The 1st-order analysis was performed by analyzing each interview as a stand-alone data set. This approach enables identification of unique patterns within a single interviews (Eisenhardt, 1989). To prevent from drawing too early conclusions, the data was analyzed without making any prior hypotheses (Guest, Namey, & Mitchell, 2013). The 1st-order analysis was carried out without specific color codes. The purpose of this step of analysis was to identify different terms in the interview data

(Gioia et al., 2012). With the first round of analysis, it was possible to establish the 2nd-order themes (Gioia et al., 2012).

After understanding the terms in single interviews, the findings were replicated to confirm the theory (see Eisenhardt, 1989). The purpose of the cross analysis of the data was to find full or partial support, rejection or modified suggestions from the other interviews. Therefore, the 2nd-order themes that had theoretical relevance across the interview data were found. Once the 2nd-order themes and concepts were identified, it was possible shape the themes into clear conclusions (Gioia et al., 2012).

The data analysis was divided into two steps according to the research questions. The first step of analysis was to identify the key themes related to the first research question. These themes were composed the key determinants of market entry strategy selection. The second step of analysis included identification of different strategies to address the key market factors affecting to strategy selection. Because of this causal relationship between the key market level determinants and the market entry strategies, the data analysis had to be done in two separate steps.

Some of the companies had very unique resources or background, which affected to their strategic considerations heavily. This had to be taken into account in the data analysis, since some themes related to these companies were not applicable to others and therefore the themes were not supported by the other data. The second step of the analysis was carried out simultaneously considering the resources and uniqueness of the companies. This step included formulating dynamic relationships between the 2nd-order concepts and building a grounded theory model (Gioia et al., 2012).

The overall data analysis and identification of the key themes within the data provided a number of findings to address the research questions of this study. Some of these findings were already identified in previous theory, but few new concepts were also identified. The findings are discussed in detail in the next two chapters. The chapters follow the two steps of analysis and therefore the findings are divided into two separate chapters. The chapter 6 considers the first research question, and the chapter 7 considers the second research question.

6. Key Determinants of Market Entry Strategy Selection

In this chapter the first set of findings are presented. The chapter aims at answering the first research question of this thesis. Accordingly, the next chapter focuses on answering the second research question of this thesis. This chapter describes the findings of the key determinants of market entry strategy selection. The purpose of this chapter is to illustrate those factors that startups need to take into account while considering the internationalization strategy. The chapter is divided into four sections according to the identified themes from the research data. These sections are *cultural and regulatory differences, trust and reliability, different customer types, and customer needs*. These topics are the 2nd-order concepts generated from the 1st-order terms in the data analysis (see Gioia et al., 2012). Therefore, the listed themes are those that were most emphasized and discussed across the interview data. Finally, initial conclusions are drawn from the 2nd-order themes. Each of these conclusions presents a challenge, which needs to be addressed by a company entering a foreign market. The conclusions of this chapter provide the initial setting or a set of challenges that require strategic consideration from the company's management. Therefore, the findings presented in the next chapter are initiated from the conclusions of this chapter. The findings of the key driving factors for market entry strategy are summarized in Figure 6. Next, each of the 2nd-order topics and the related 1st-order terms are discussed in detail.

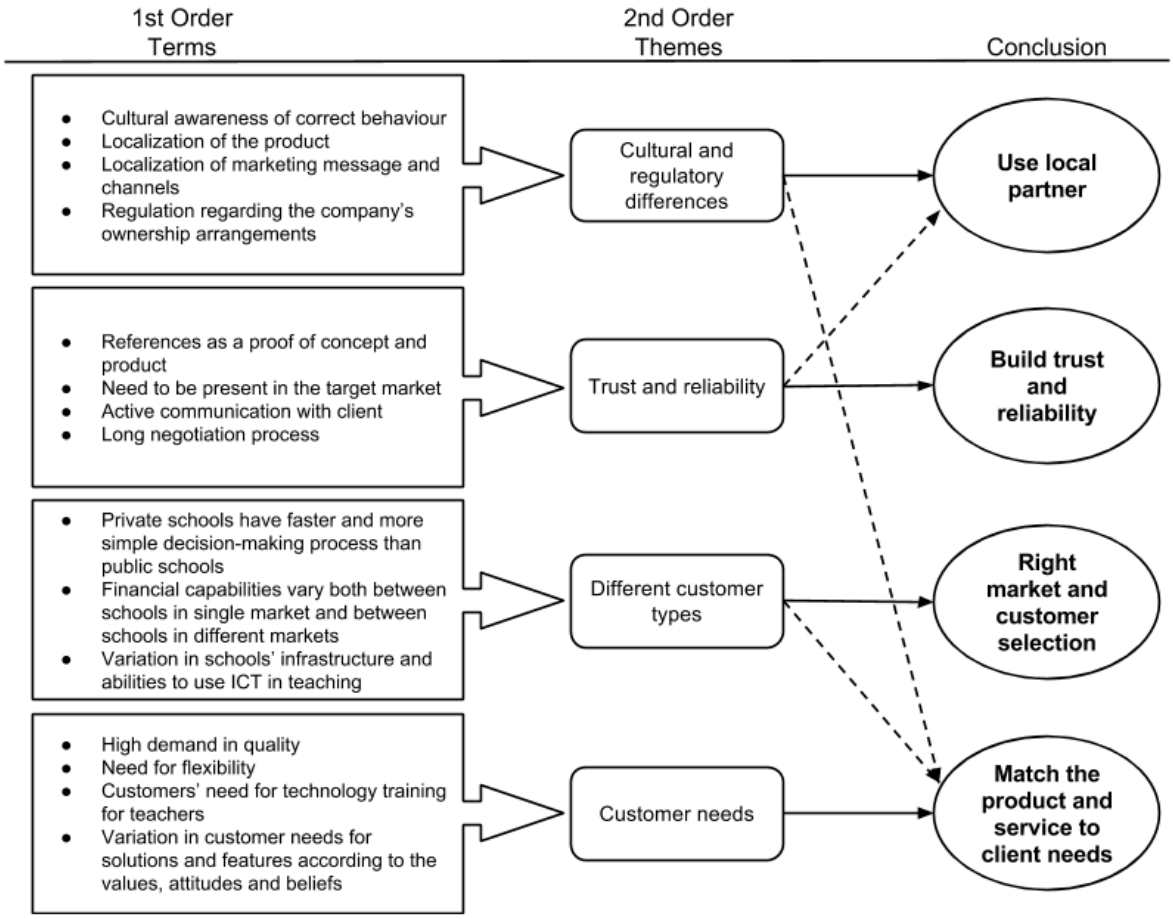

Figure 6: *Key drivers for market entry strategy for startups in digital education.*

6.1 Cultural and Regulatory Differences

Several experts and company representatives emphasized the importance of understanding the cultural differences between Finland and any other country in the world. The common argument was that culture and religion affect to customers' way of working, what kind of behavior is acceptable, what kind of product is appealing and what kind of marketing message is successful in each country. Additionally, regulative environment in different markets seems to affect to company's operations, for example what are the ownership requirements for the company.

First, it seems that many Finnish companies in the past have failed in behaving according to the local standards. Expert 2 listed several basic behavioral issues that companies need to consider:

> *"Starting from how you dress, what you wear, what you say, how you speak, how you sit and what you eat. I mean the very practical basic things. They are surprisingly important." [Expert 2]*

Furthermore, the data indicated that failing in understanding the local culture and religion may not ruin the business opportunity entirely, but succeeding in this will take things forward faster with a positive impact. For example in Middle East the religion is an essential part of the local culture and therefore has major impact to the companies operating in these countries. Understanding the religion and its influence on the business is major part of cultural awareness for startups. In addition, some companies have tried to export Finnish values and culture to another country, which according to the experts will never succeed. Therefore, understanding the cultural differences, ways to behave and how to do business in certain location must be acknowledged and perfectly understood before entering the market. This was supported also by several companies. For example, company 5 argued that companies cannot do business in global markets the same way they do in Finland:

> *"One common mistake that many small Finnish companies do is that they think that the same product and story work in every country or that you cannot use the things that you have learned in Finland because it does not work the same way." [Company 5]*

Several experts also recommended systematic and well-rehearsed approach to communication.

Although the culture clearly defines the behavioral standards in different markets, it affects also to the product and marketing activities of a company. The data revealed that even for digital products, localization does not mean purely translation to the local language, but also adopting the product outlook and features to satisfy the cultural requirements. Several experts illustrated the product modification requirements with examples of few countries in which certain pictures, figures, icons, shapes and even colors are forbidden. In addition, the culture seems to have impact on the features that the potential customers are expecting from an ICT solution. For example, student assessment methods fluctuate according the market. In some countries the parents' role in monitoring the student's progression is emphasized whereas in some countries self- and peer-assessments are highlighted. According to many companies this kind of variation in cultural preferences has to be taken into account in the product features, because the features that are used in one market may not satisfy the customer needs in other markets.

In addition to the product modifications, the data showed that also marketing activities of a company must be adopted according to the local culture. Several companies had identified that the same marketing message does not work or appeal to the customers in different markets. Company 5 illustrated the culture's impact on the marketing:

> *"The same message does not work in the different markets and that is very important to understand. For example in Singapore, if we say there that this (the product) is targeted to individuals in that market in which individuals are not important but the family and group are emphasized, that message won't work as it would in Scandinavia." [Company 5]*

The key consideration among the companies was that what kind of values appeal to customers in different markets. This was commonly found as a very important issue, since the culture and pedagogy in Finland is very different from other countries especially in Middle East and Asia. In addition, many companies were uncertain of how much localization should be made to social media posts and web-pages. However, the experts highlighted that not only the marketing message requires modification but also the marketing channel, because in different countries some marketing channels reach potential customers better than others. On the other hand, the companies had generally carried out their marketing on the Internet and by participating in local education events despite the market or country.

Finally, the data showed that regulation is very different in some countries than it is Finland. Several experts strongly recommended to analyze the impact of the regulation and laws before entering a new market. Few companies provided also examples on the regulatory challenges that they had faced. These challenges were commonly related to the ownership arrangements and establishing local subsidiaries purely because of requirements of local regulation. Some companies had also selected their current business model because it was the easiest option for global expansion in terms of regulation and laws in foreign markets.

In order to gain cultural knowledge and understanding, both the experts and the sample companies recommended either hiring a person with a local knowledge and networks or partnering with a local company. Several experts pointed out that a local partner can help in adapting the product and marketing to the local culture, help

finding potential customers and other needed connections in the market. Expert 8 described the importance of local partner as follows:

> *"First, the local operators are present in that market, they speak the local language, they obtain the correct cultural identity which is developed in the teenage years, they have contacts and they deliver also other things to the schools than your product. So what I am saying is that best case is to partner with an existing sales operator, who already is operating with the schools." [Expert 8]*

Most of the sample companies had partnered with a local distributor, who searched for potential clients and opened the conversations between the potential clients and the company. The partners commonly helped also in understanding the culture and localizing the product and the marketing activities. All of the companies argued that successful market entry and strong market presence require local representative, because gaining the required market knowledge and networks would take too much time for a startup. For example, company 6 highlighted that good partners are crucial part of scaling up the business:

> *"I personally see that partners play essential role in scaling up yourself by turning the customers and fan club of your partner to your customers. You have a great partnership if you have a shared mission and vision, but you have a little bit different customer groups." [Company 6]*

Few companies had also hired a local project coordinator, who had both extensive experience of the market and knowledge of the company's product. In these cases the project coordinator helped in adopting to the local market and helping the company to modify their product and marketing activities. One company had also used local PR companies to ensure the correct marketing message in each market.

To conclude, the data indicated that culture and regulatory environment determines greatly how companies can successfully operate in a foreign market. The local culture does not only affect to the ways of behaving in the market, but also to the requirements for the product and marketing. In order to understand the culture and traditions in a foreign market, most of the sample companies had partnered with a local company. Furthermore, all the sample companies had some kind of local person to help them to address the challenges in cultural differences. Also, the experts generally recommended finding a local partner in the target market. Next, the impact of trust and reliability to company's internationalization strategy are discussed.

6.2 Trust and Reliability

The data analysis revealed that building company's reliability and trust with the customer is essential part of successful operation in all foreign markets. The trust building and reliability requirements were visible in requirements for references, need to be present in the market, and long negotiations with clients.

Several experts emphasized the importance of having references from globally well-known schools. This means that before putting significant efforts on entering certain markets, the company should first seek these references to convince the possible clients about the product and the company. Expert 6 highlighted that references are important in all markets around the world, not only in those where trust is generally major part of business:

> *"It is important everywhere to have references. They are asking what kind of references, which schools for example you are present, where you have the references?" [Expert 6]*

Some experts had found it very surprising how well the clients in certain market areas such as Middle East know each other. In practice, this means that the clients in those markets share their experiences about different operators to each other whether the operator is good or not. From the company point of view it means that failing with one client may cause difficulties to get other new client from that market. Also, the companies commonly agreed that the references are must in all markets. However, they had differing opinions where the references should be from. Few companies found crucial to have references from domestic market, because otherwise the clients cannot trust the pedagogy behind the product. On the other hand, few companies looked references from certain countries, because clients all around the world believe in a product that is used in these countries. Finally, few companies found University certificates for the product or the pedagogical model as the best possible reference. Regardless the variation in the reference origin, all the experts and companies found the references important in building the reliability for the company and the product.

In addition to references, the experts pointed out that companies need to be present in the market to build the trust with the client. They commonly agreed that many Finnish start-up companies fail to build the trust with the clients by thinking that the

negotiations can be done over e-mails or Skype. For example, expert 2 described the importance of being present in the market and building the trust with the client as follows:

> *"So you need to be there to meet the partners and sit together with the partners. You cannot imagine to create the partnerships via emails or skype-conversations. You need to be there." [Expert 2]*

The experts emphasized the importance of maintaining a close contact with the client after the initial conversation. Both the experts and companies considered that getting the customers interested about a digital education product is relatively easy. However, according to the experts the companies fail at this point by not being present in the market and not being enough contact with the client. Several companies also pointed out that they may have not realized in the beginning how much you need to be present in the target market to turn the conversations into actual sales. For example, company 2 had failed to close the deals with some clients because of inadequate presence in the market and communication with the client:

> *"I received a lot of requests from for example Malesia and Singapore, then I had several Skype conversations with them, but to turn that into concrete business it would have required that there was someone present there in the target market." [Company 2]*

Many other companies also pointed out that in their experience one of the most essential thing is to build the trust with the client and almost become friends with them. It seems that being present in the target market is required for building the trust and therefore turn the conversations into actual business. For example, company 1 described the trust building with the client:

> *"This is a product that is being bought by people from other people that they trust. If we were to sell our product to a one school or if we were to sell it to the entire country, we have to do it on a personal level either with the school owner or the ministry of that country." [Company 1]*

While the actual sales in a foreign market requires local presence, several companies have also been surprised how long does it take to negotiate with the clients. The sample companies reported that the negotiations last commonly from 6 to 9 months. The experts also noted that long negotiations are common, because it is part of the trust building process, which does not happen quickly. However, several companies emphasized that the company should do everything they can to make the process faster, because the longer the negotiations last the more financial and labor resources

it will take. Many of the sample companies considered the long negotiation process as a challenge because of the belated cash flow.

The data indicated that companies need to build reliability and trust with the clients to succeed in foreign markets. The first step seems to be convincing the customers about the product through well-known references. However, convincing the client about the product is not enough, and therefore the next step is to build the relationship and trust with the client. This leads to requirement for the company being present in the target market and actively maintaining the relationship. Furthermore, building trust with the client takes relatively long time, which leads to long negotiation process. Several sample companies reported the long negotiation process as a challenge. In summary, it seems that building reliable and trustworthy image about the product and the company is essential part of successful market entry with digital education products. Next the chapter continues by discussing the different types of customers globally and the factors that distinguish different customer segments.

6.3 Different Customer Types

The data showed that there is great variance in customer types across the education markets. The variation does not only occur between different markets, but also within single markets. The identified and most impactful factors from the company point of view were ownership arrangements of the school (private versus public), financial capabilities, and infrastructure of the school.

While discussing about the customer characteristics in foreign markets, most of the experts made clear distinguishing between the private-sector schools and the public-sector schools. First, according to many experts the global trend seems to be that private sector is growing fast in many developing countries such as India, Brazil and countries in Middle East. The experts argued that generally in these countries the public schools are not developing fast enough, which makes fast-moving private schools appealing to parents. Several experts had also noted that in private sector decision-making is much faster. The companies did agree, and they found the private sector more appealing in the beginning phase of internationalization because of the faster and more simple decision-making. Several companies found that selling the

product in public sector would be very difficult and take too much time. The data indicated that usually in public sector companies need to convince the decision-makers in the ministry of education to sell the product to the public schools. Many experts argued that the challenge in public sector is to find the right people in the ministries, who can make things happen. On the other hand, success in public sector could offer much larger deals that one could achieve in the private sector. Expert 5 described the public sector as follows:

> *"Well especially in public sector where they are heavily dependent on the ministry of education, and the ministries of education are usually extremely poor and staffed with wrong people. There is a huge barrier in terms of getting the papers through in the various offices. Then again the win there can be huge, because if you score there in the ministry of education, the number of units sold could be massive." [Expert 5]*

Several companies found the public sector also interesting, but were not putting significant efforts to it. Common strategy for many companies was to focus and invest in private sector, but simultaneously maintaining the conversation open in public sector with minimal efforts. This approach enabled the companies to minimize the investment in public sector, but still keep the path open in case a good opportunity emerged. Expert 8 recommended a strategy for startups to succeed in public sector:

> *"The problem in the public sector is that it is politically so colorful, it takes so long to get anything through. From an average Finnish company point of view, the best way to approach this is often to think bowling-theory, so which pin to hit in order to make as many pins to knock down behind it." [Expert 8]*

Few experts also recommended small Finnish companies with digital learning materials to not to get involved with the public sector, because it is too slow and requires too much resources from a startup.

One major difference between different schools were the financial capabilities. Schools' funding varied both within single markets and between different markets in the world. Generally, the private schools seemed to obtain better financial capabilities to invest in new technologies. Several experts and companies had noted that in several markets such as India, countries in Middle East and some countries in South-East Asia, the competition between private schools is very intense, and they are therefore willing to invest in developing the education through new technologies and software. In these markets the private schools seemed to be in different levels in standards of quality.

The high-level schools charge high tuition fees and the lower level schools low tuition fees. The size of the tuition fee affects directly to the school's financial capabilities and therefore quality requirements. Both the experts and the companies found the medium and the above level schools as the best target generally for Finnish companies producing digital learning materials. This was mainly due to the fact that the higher-level schools were less restricted with money. The financial capabilities varied also between different markets. For example, schools in Middle East and in Europe were considered relatively well financed. On the contrary the schools in Africa, Latin America and in India seemed to have less financial resources to be used. However, the experiences in all these countries, especially in India, varied greatly among the interviewees. Several experts emphasized the poor financial capabilities in India. For example, expert 8 described the pricing in India:

> *"If here (in Finland) something costs 100 euros, in India you should expect it to cost 1 euro at maximum or maybe 10 cents. India is always volume business, especially in software. Let's assume a company here (in Finland) is looking for 1000 users, so there in India the minimum number is one million users. If someone thinks that they can sell it even half a price they are selling in Finland, the business is not going to fly." [Expert 8]*

Some companies however found the financial capabilities in India just as good as everywhere else. The companies argued that if you can demonstrate the benefits of the product well, the customers in India are willing to pay a premium price for it. For example, company 5 was selling their product at the same price in everywhere:

> *"With the pricing we basically sell it at the same price everywhere. The only country where we have had to give discounts because there is no money has been Finland. Then again when we have been in India it has been more like is this so cheap?" [Company 5]*

It seems overall that the financial capabilities vary greatly between different countries but also between customer segments within single countries. Countries seem to have many private school segments, which each obtain very different financial capabilities. The high-quality private schools are competing intensively, and they seem to be generally willing to pay high price for high quality products.

Finally, there seems to be variation in schools' infrastructure, and therefore ability to integrate ICT solutions in teaching. The most highlighted challenge that appeared in the data was the poor internet connections. Several experts pointed out that the internet connections are adequate for cloud-based software only in very developed

countries such as Finland and United Kingdom. They also noted that in highly populated countries such as China, even the fastest internet connections break down at some point because of the huge number of people. Expert 7 also emphasized that companies need to carefully analyze the stage of customer's infrastructure and whether the technology can be used:

> *"The connection is not always 4G, in some places the connection might be quite primitive. This is also an issue that might not come to mind while we are here in Finland. All in all, the business could really just stop there if the infrastructure is not adequate." [Expert 7]*

In addition to the variation in internet connections, in less developed countries problems with electricity may also emerge. The experts noted that especially in African countries and generally in countryside, the availability of electricity may not be guaranteed. In this kind of places, the customers may not truly be ready for technological solutions adopted to everyday teaching. Finally, few companies highlighted that the software should be available and working in all types of devices. In several countries it seemed to be common that students bring their own devices to school, which leads to relatively large variety of devices in use. Therefore, the companies found it essential to have the software available not only for the latest smartphones but also to the older ones.

To conclude, the data indicated that there is great variation between the schools in terms of investment decision-making process, in financial capabilities and in infrastructure's ability to manage with cloud-based software. The experts recommended commonly for the companies to select the market and the customer segments carefully. The experts emphasized that the customers in different markets are not only in different levels in development, but also obtain different financial capabilities to invest in new ICT solutions. Therefore, the customers' barriers of using the company's product should be carefully considered before entering a new market. Next, the findings of the customer needs in international markets are described.

6.4 Customer Needs

Both the experts and the companies discussed the different kinds of customer needs and variation in them between the markets. The data showed that some customer

needs can be generalized to some extent in several markets, but some are purely applicable in a specific market. The identified customer needs include demands in quality, flexibility, training, and features and pedagogic concept of the digital learning material.

Several experts and companies underline the customers' high expectation in quality. It seems that especially the private sector schools are very demanding in terms of quality; they expect that everything works perfectly and that using the product shows clear results in improved learning. Many companies pointed out that the product has to be fully working when new markets are truly entered, because the teachers do not want to struggle with the software during lessons. This argument was also supported by the experts. For example, expert 1 emphasized that the product must be working when entering new markets:

> *"There is really no point of going there to practice in those countries. It has to be functional when you go there." [Expert 1]*

In addition to the high quality demands, customers seem to be generally expecting flexibility from the small Finnish companies. Both the experts and the companies agreed that startups need to offer flexibility to the customers in order to compete against the large multinational companies. Few experts also mentioned that one way to succeed in foreign markets is to be flexible and deliver products and services according to the client's wishes, not just offering a ready-made package. Both high demands in quality and flexibility seemed to apply across the markets that were discussed in the interviews.

In addition, the data indicated that in several markets there is great demand for teacher training, especially related to teachers' competence in technology. The experts commonly agreed that teachers' competences in technology are at poor level in all countries in the world. Few experts ranked the teacher's lack of competence as the greatest obstacle for Finnish digital education companies' success in foreign markets. Expert 4 described the need for training as follows:

> *"Even though I have done a lot work with user interfaces, there are sometimes very surprising challenges such as "how did she not understand that?" In general, even the simplest tools seem to require some kind of training even though it would seem obvious how to use the tool, but it's not." [Expert 4]*

The experts emphasized that in many countries, especially in Middle East and in Asia, teachers are trained to follow a strict curricula guideline and they are not trained to create their own methods for teaching. On the other hand, few companies had not identified any need for further training for teachers. These companies highlighted that their software had been developed to be very easy to use, and therefore they had not seen a need for additional teacher training.

As discussed in previous sections, the culture and values guide the customers' needs and preferences about the features in educational software. Therefore, the customer needs vary in this sense depending on the local culture and traditions. The local culture also affects to the attitudes and beliefs towards ICT solutions. The experts pointed out that Finnish pedagogy does not always fit to the local culture. For example, expert 2 elaborated how mobile devices are not considered to fit in teaching and learning in some countries:

> *"It's a very difficult idea for all the stakeholders; the teachers, the students, the administrators and the parents that a mobile device could be a learning device at any lesson. And the reason for that is that mobile devices are considered as a free time activity." [Expert 2]*

In addition, the data indicated that use of technology was often considered as objective rather than a tool for learning. On the other hand, several companies reported that the school managers generally have very positive attitude towards ICT, especially if the digital material had showed proven results in improved learning. For example, company 5 argued that in India the new pedagogic trends are understood better than they are in Finland:

> *"Finnish schools are very much behind in that sense, you can see it when you go to those (foreign) markets there. So strategically, in India they do know what is meant by future skills and learning and to what direction the teaching should be developed. They understand that their middle-class is growing, they understand that they cannot teach the students with traditional methods, they understand personal learning, and they understand information and knowledge requirements." [Company 5]*

Therefore, it seems that there is much variation in attitudes and pedagogic beliefs towards educational technology in teaching. In summary, the customer needs seem to vary according to the local culture, values and attitudes. However, many customer needs such as high demands in quality, demand for flexibility, and need for technology

training for teachers are common in all markets. For small start-up companies this means that the product and services must be matched with the local needs and preferences. The experts highlighted especially the impact of the culture to the product requirements. Additionally, several experts pointed out that even though Finnish pedagogy is highly valued in several countries, all the Finnish pedagogic models and beliefs are not endorsed in foreign markets.

In this chapter the findings of key driving factors for market entry strategy selection for startups in digital education have been discussed. The findings of the conducted research have showed several major themes that drive company's strategic considerations. The major themes are related to culture, traditions and regulatory environment, trust and reliability, different types of customers, and customer needs. These themes were supported by several 1st order terms that were described in detail in the previous parts of this chapter. Now that the key drivers for market entry strategy selection have been identified, the different strategies that were identified from the research data can be described. The next chapter continues by illustrating the identified strategies to address to the key challenges and market requirements in the digital education.

7. Market Entry Strategies for Startups in Digital Education

The second research question of this thesis is related to different strategies that startups can apply in international markets. The purpose of this chapter is to illustrate the causal relationships between the key determinants of the market entry strategy and the different strategic approaches for addressing them. Therefore, the findings of the key determinants of market entry strategy that were presented in the previous chapter provides the initial set of challenges that companies need to address. The identified approaches to address the challenges were either used by some of the sample companies or recommended by the experts. Company's ability to select different strategic approaches is dependent on the resources as found already in the literature review. Therefore, the required resources are considered throughout the analysis in this chapter.

This chapter is divided into four topics based on the conclusions that were established in previous chapter. Each topic presents an objective that is based on the identified market-level challenges established in previous chapter. The four topics are *finding a local partner, building company's reliability, selecting market and customers,* and *matching the product and service to client needs.* For each topic, several different strategies were identified in the research data. These findings of different strategies are presented in this chapter. The summary of the findings of different strategic approaches are illustrated in Figure 7.

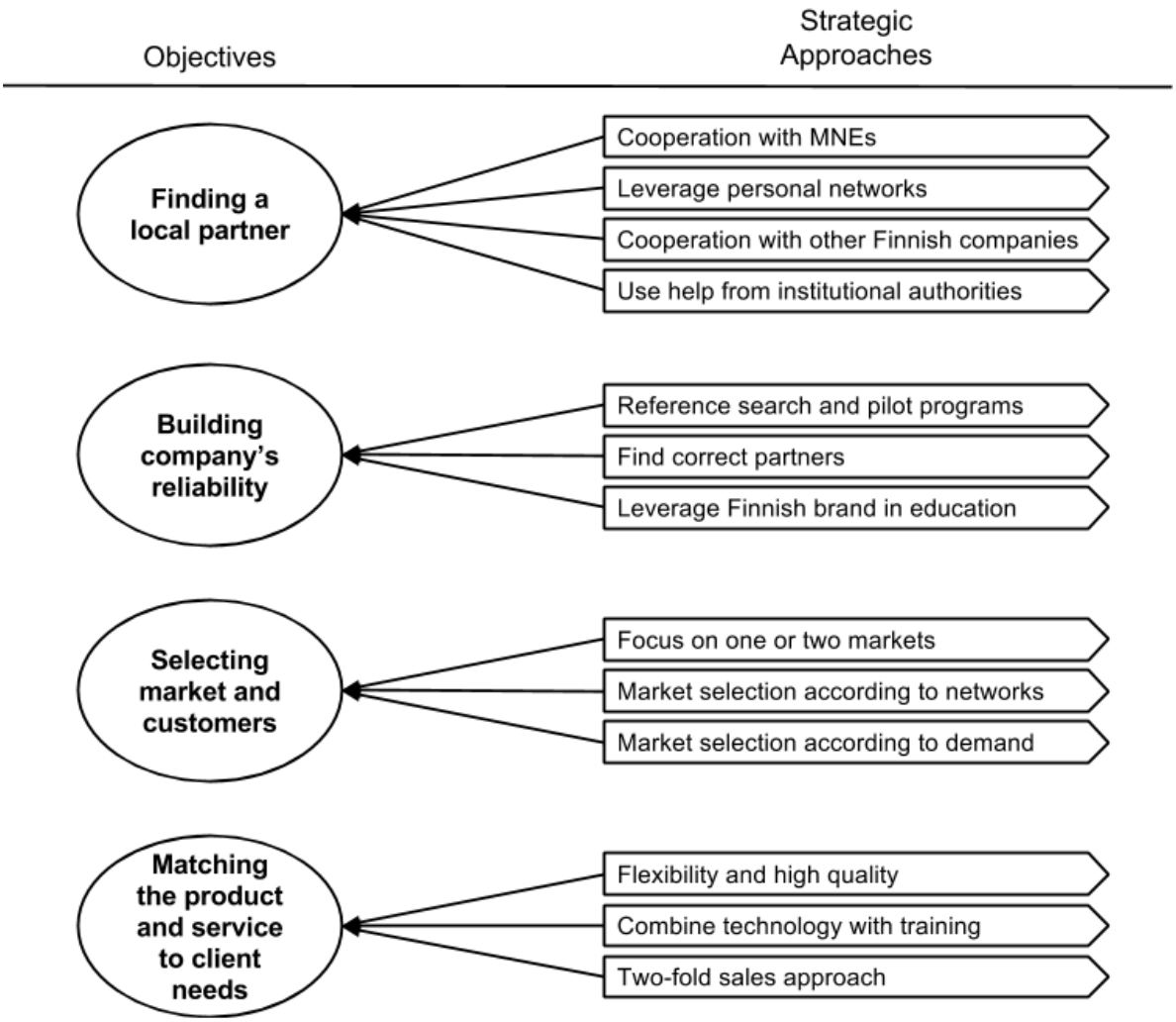

Figure 7: *Strategic approaches to meet the objectives and address the market-level challenges.*

7.1 Finding a Local Partner

Having a local partner or a local person employed was found essential part of successful market entry by several experts. The sample companies had found local partners in four different ways including leveraging personal networks, cooperation with Finnish start-ups, cooperation with MNEs, and leveraging Finnish institutional experts. The experts generally considered finding a good local partner as a difficult challenge for Finnish digital education companies. Both the experts and companies agreed that the best type for local partner is a sales partner (distributor), who is already operating in the education sector. The partner should obtain good local networks, know the culture and traditions, be reliable, and have good reputation

among the local schools. All of the sample companies emphasized the importance of having a good local partner in company's international success.

Few companies reported that they have found their local partners through their existing network. It seems that those companies in which management obtained long experience in international digital education had established an extensive network that they could leverage for finding both the customers and partners. For example, company 5 pointed out that they have found partners through their existing network:

> *"We have done this for so long time that we have all very large network in this field globally and we can reach many people through our network. We have found people who know things and can recommend partners and so on." [Company 5]*

However, only few sample companies had truly such a large network that finding local partners was possible. The local partners that were found through own network seemed to be reliable and trustworthy. The companies believed that the local partners did not want to let down the person who recommended them, and therefore put a great effort on the partnership.

Furthermore, few sample companies had found their local partners through other Finnish digital education companies. These companies had been working in close cooperation with other Finnish companies, who had recommended their own sales partners in the local market. The sample companies leveraging this strategy found the partners good and reliable. They believed that the local partner identified the value of having several Finnish companies as their partners, and therefore they were putting significant efforts on these partnerships. In addition to finding local partners, many experts and companies hoped that there would be more cooperation among Finnish companies overall. Several companies and experts pointed out that often the customers would like to buy larger packages rather than single products. Therefore, they considered that cooperation among Finnish companies could be beneficial for all the participating companies. For example, company 5 reported that they are searching all the time for strategic partnerships:

> *"We are seeking different kind of partnerships and synergies yes. The markets globally are so big that they are often willing to buy full package solutions so the cooperation is quite important thing." [Company 5]*

Even though only few companies had found the local partner through other Finnish companies, it seems that several companies would be willing to participate in alliances or partnerships with other Finnish education companies. In addition to finding local partners, both the experts and companies considered that there could be further possible synergies in the alliances of Finnish education companies.

Some companies had started also cooperation with large multinational enterprises, and many companies had considered cooperation with MNEs as one possible strategy for entering new markets. None of the sample companies had yet found local partners through MNEs, but several companies and experts identified this one possible way for finding good partners. For example, expert 8 argued that large companies have offices in hundreds of countries and have already established a good local network which startups could leverage:

> *"The initial situation is that someone already has the possible clients of these small Finnish start-ups, because these are large global operators for example Lenovo in over 160 countries. This kind of strategic partnership with a device provider whether it was Lenovo or Apple or someone else can help small companies to find the right people in local market." [Expert 8]*

In addition, several experts pointed out that MNEs can make certain things possible, which would not be viable for startups without the MNE's support. However, the experts emphasized that finding this kind of partnerships is not easy for startups. Those companies that had established partnerships with MNEs highlighted that start-up companies need to both convince the partner about their concept and find the "win-win" situation for both parties. Several companies reported that large companies were interested in startups because developing education is part of their corporate responsibility program. Therefore, companies emphasized the importance of good story, mission, and conceptual model of the digital education companies in getting the MNEs interested in cooperation. For example, company 6 described how large companies can be motivated for partnerships:

> *"But it is not enough to have a good person to link you to the partner, you need also to have an interesting proposition that both parties will see the win-win situation there and think that hey this is a very cool thing. The fact that we have a learning game already provides the community aspect there. For many partners education is a major part of their corporate responsibility strategy or it may be a major part of their business.*

The better we find strategic match in terms of mission and vision, the easier it is to cooperate, because then it is natural and both parties want the same things." [Company 6]

Several companies and experts agreed that for many large corporations the motivation in cooperating with digital education companies is to improve their profile as a good corporate citizen. Finally, the cooperation with MNEs was also found as a good way to establish validation for the product and the concept. Having a large well-known company or organization behind the idea seemed to boost the start-up's profile in the client side as well. From the Finnish start-ups, establishing good partnerships with MNEs seems to require a linking person to the organization, a strong mission, vision and story, and a win-win situation for both companies.

Finally, several companies reported that they have found potential customers through the Finnish institutional organizations such as FinPro and local embassies. Several companies also pointed out that finding partners with help of these organizations would be a possible approach. However, only few companies had used this approach for partner search, because the companies had found partners some other way. It seems that the companies select this strategy only if they do not have resources or capabilities to select other strategies for finding partners that were previously described. For example, company 7 had found partners through other Finnish companies and therefore had not used institutional organizations for partner search:

"It seems that the embassy networks are willing to provide help. But we have not systematically used them other than exchanging some messages or emails." [Company 7]

Still, most of the companies had positive experiences of cooperation with institutional organizations, especially embassies. For example, company 4 had visited several embassies who had promoted then locally:

"We have very good experiences from Finnish embassies. We have travelled a lot with ministries and business delegations in the export development trips and get to know with the embassies. And always when we travel we try to visit the embassy to tell them about our operations and the Finnish embassies of course have interest to offer Finnish services in their own location. We have found this a very good approach. Very often we are being contacted and the clients have said that they heard about us for example from the Finnish embassy in Mexico." [Company 4]

The experts commonly recommended startups to use institutional organizations' help, because it is free. They also pointed out that often people in these organizations have long experience of the markets and have probably large network through which startups could find crucial contacts or clients. Some experts considered that the institutional organizations are helpful especially in carrying out market analyses and background checks for possible partners.

In addition to finding a good partner, few companies and experts emphasized that local partners cannot succeed on their own without the support from the start-up company. The companies found it very important to continuously communicate and collaborate with the partner. Collaboration in sales and marketing was found essential because the local partner can modify the company's marketing message to become appealing to local people. On the other hand, if the partner marketed by themselves, the marketing message might not be in line with company's mission, vision and business model. In addition, few companies and experts pointed out that partners need to be trained well. For example, company 5 elaborated their support activities for local partner:

> *"But we do everything in cooperation with them. I have not seen a partner yet who would do it without strong support from us. It is very important to communicate and collaborate with them all the time. And also train them and do collaborative marketing with them." [Company 5]*

In addition, the experts argued that too often Finnish companies think that the local partners are working for them. The experts highlighted that the start-up companies should work and do everything they can to support the partner and make them better in their work.

In summary, it seems that companies try to find partners first through their existing network or contacts with other Finnish companies. Only if they do not obtain a good network or for some reason do not find partners through their contacts, they will use the help from Finnish institutional organizations to find partners. Some companies seemed to acknowledge that finding partners could be possible also through cooperation with MNEs. However, it seemed that only few companies had existing contacts to large corporations and many companies were skeptical about the MNEs'

willingness to cooperate with them. On the other hand, the companies which had established cooperative agreements with MNEs considered that large companies were generally interested about startups in education sector, because MNEs are willing to participate in developing education globally. This argument was supported by several experts. Next the chapter continues describing the strategies that companies could use to build reliability and trust among potential customers.

7.2 Building Company's Reliability

Building reliable and trustworthy image is essential part of success for startups in foreign markets. The data suggested several strategies to build reliability and improve the image of the company as trustworthy and high in quality. These strategies include pilot programs and systematic reference search, strategic partner selection, and leveraging Finnish brand in education.

Several companies had started the international activities through piloting their product in few schools in different markets. This enabled the companies to gain insights of the market, local customers and customer needs. However, many companies used the pilot schools as a reference in further sales. Few companies reported that their initial strategy was to carefully select the best pilot customers in order to gain good references to build their reliability. The experts pointed out that especially investor-driven and high-profile schools want to screen different products and will require a pilot in any case before making a contract. Therefore, several experts suggested companies to carry out pilot programs in the high-profile schools to gain high-profile references and because these schools require pilot anyway. Obtaining good references were commonly considered as important part of successful market entry by the companies and experts. For example, company 4 had systematically searched references from US to validate their product in high-profile market:

> *"We are looking for reference cases from US, because US works as a good example also for others thinking that this is probably good because customers in US are buying as well." [Company 4]*

In addition to references gained from pilots, many companies had looked for pedagogic or content validation from Universities or research centers. Many

companies found these references from high-profile Universities and research centers essential in validating the content quality and pedagogic approach. It seems that systematic reference search may lead to set of high quality references, which boost the reliability and trustworthiness of the company.

Furthermore, the data indicated that in several markets company's partners determine partly the reliability and trustworthiness of the company. This seemed to apply both to the global and the local partners that a company had. In terms of large corporations, the sample companies commonly agreed that being in cooperation with any large and well-known company is a good validation for a start-up. For example, company 5 commented the validation that can be gained from cooperation with an MNE:

> *"If you are on the list of any big company or they recommend you it's always a big validation even though they were not selling your solution directly." [Company 5]*

However, it seemed that the reputation of local partner had also a significant effect on the reliability of the start-up company. Several experts and companies emphasized the importance of right partner selection to build company's image. For example, company 6 elaborated the significance of having a good local partner:

> *"If you have a very good local partner, you will be raised at the same level as your partner from the local operators point of view. For example, if we think about launching in China, we very carefully consider with which kind of partners we want to enter that market. The better partners you have, the better you will be profiled in the markets." [Company 6]*

Also, few experts noted that in some markets such as China only way to succeed is to find the right local partners who can make things happen. They argued that even if the product was superb, it does not help in some markets if you don't have the right partners to validate and promote it. Therefore, companies can improve their reliability by selecting the right local partners in international markets.

Finally, the sample companies and the experts commonly agreed that Finnish brand in education and pedagogy is very good in all countries, and that companies could leverage this brand more than they do currently. For example, company 7 considered that Finnish brand has not been used enough by the Finnish companies:

"It also seems that in many international markets it is a real benefit to be able to say that you are from Finland and your product is from Finland. I think that overall we have not been able to use that enough, I mean the education brand of Finland." [Company 7]

Several companies found that the Finnish education brand helps opening conversations and it triggers customers' interest quite easily. However, the companies pointed out that after the conversation is opened, companies cannot purely lean on the Finnish education brand in convincing the client of the solution because the sales arguments must be more specific and based on the product quality. Also the experts agreed that international clients are interested about Finnish products because of the good reputation. For example, expert 5 argued that the initial setting with a client is that they are willing to buy Finnish education solutions:

"The clients are looking at the Finnish dream, the Finnish educational dream. They believe that there is magic in Finland, so they want part of that magic." [Expert 5]

However, several experts also highlighted that currently Finnish education brand provides companies a window of opportunity to enter the global markets, but it may not last for long time because other countries are also developing their education rapidly. All in all, the Finnish education brand is considered as a real advantage by the sample companies and the experts. Many companies also recommended to leverage the brand as much as possible. They argued that companies can gain a trusted image already by being from Finland.

Finnish companies can build their reliability and trustworthiness by piloting and having high-profile references, selecting the right partners, and by leveraging the Finnish brand in education. All these strategies require systematic approach and strategic plan for building company's image. In addition, companies with extensive network and good global connections seemed to find partners and reference clients more easily. However, as described previously, companies can select various strategies to find partners and therefore improve their reliability. The chapter continues next by discussing the strategies for selecting the right market and the right customers within the market.

7.3 Selecting Market and Customers

Several experts emphasized that companies need to carefully consider which markets they enter and which customer segments they focus. Few experts also highlighted that internationalization requires a lot of financial and labor resources, and therefore startups should focus in one or two markets in the beginning to cope with resource requirements. In addition, few experts pointed out that companies should not emphasize too much market size as a factor for selecting the market, because even small markets are enough for most of the small Finnish start-ups. For example, expert 8 discussed how market selection should be a conscious choice:

> *"First you need to make a conscious choice that in which markets are you entering into. This is not applicable only in education sector, but often the thinking is just "let's go to China, China is a big country". And for most of the Finnish companies, Shanghai would be big enough market for them for the next 10 years. Also India, it's not just one India, but it is more like 200 small countries within India. Or Germany, it is not just a single country, but it is 9 states that operate quite independently." [Expert 8]*

On the other hand, in market selection companies should consider the customers' readiness for ICT. For example, many experts and companies pointed out that the infrastructure barriers may stop the business in some markets. Furthermore, the differences in financial capabilities to buy ICT solutions differ both between different markets and different customer segments. Many experts recommended startups to focus first on private school segment, which is considered as medium to high-quality. These are schools that generally have high tuition fee and therefore good financial capabilities. The experts also pointed out that these schools want to invest in new and best technologies to gain competitive advantage compared to their rivals. For example, expert 7 described why these schools are the best target segment for Finnish start-ups:

> *"Generally for Finnish companies, upper middle-class and above is the best target segment; the schools with proper financial resources, not maybe the large schools for big masses." [Expert 7]*

Even though the public sector could offer large deals and therefore big opportunities for Finnish companies, many experts did not recommend to focus on public sector schools. For example, expert 7 had experienced the public sector too difficult and slow for Finnish companies:

> *"The public sector is very slow, stiff and difficult. According to our experience, that is something that Finnish companies should not try to get involved into at least with these digital materials." [Expert 7]*

Therefore, the experts commonly suggested that startups should carefully analyze the different customer segments within a single market and consider their readiness and financial capabilities for ICT solutions. Generally, the experts considered the high-quality private schools as the best target for small Finnish companies in digital education.

The companies commonly agreed that executing heavy market research may not be the best approach for selecting the target market. The companies considered that there is great variation in clients and their objectives even within single markets, and therefore a heavy market research would not be useful. For example, company 1 emphasized that clients are never the same within single country:

> *"That's why I said previously that there is no point doing market research on a country. This is a personal decision by the school owner, school promotor and the principle who runs the school. Some of them have very high pedagogical aspirations, visions that they want to have." [Company 1]*

In addition, conducting such a research would require too much resources for many companies. Several companies considered pilots as a better way of for gaining the knowledge about the market and the client. The companies pointed out that getting an experience from few locations already gives a lot of information and feedback about the concept and the client needs. Even though the companies did not consider heavy market research as a good approach to select markets, they still highlighted the importance knowing the market characteristics in those countries that have been selected. However, the market selection was not done according to marker research by any of the sample companies.

The companies reported that the target markets were usually selected according to the existing networks and relationships. Many companies had entered markets either because of a high demand for the product in a specific country or a good existing networks and partners within a specific country. For example, company 1 had selected India as a target market, because of their good partners in the location and gained experiences and knowledge from the pilot programs:

"First, we have there (in India) two very reliable partners, who know the market and the other one is that we have worked there now already for a year." [Company 1]

Also few other companies reported that they had selected a specific market to enter only if they had right people to work there in the target location. They emphasized that they would enter a new market only if they believed that they could succeed there with the existing local partners. Therefore, these companies selected the markets according to the partners that they would have in the target market. On the contrary, few companies selected those markets that had highest demand for the company's product. For example, company 4 elaborated why they had selected this market selection strategy:

"We should not push ourselves to certain country and try to convince them about our concept if we have another country in which clients are already convinced and want us. You should go there where it is easiest to enter." [Company 4]

Finally, few companies reported that their market selection had happened spontaneously without any systematic strategy for market selection. These companies had entered those markets where they saw a good opportunity to enter. These opportunities were either an interested client, good existing contact to partner or opportunity to piggyback some other Finnish digital education company. However, this kind of strategy conflicts with the experts' recommendation to focus on one or two markets, because usually the opportunities had arisen in several different countries.

In summary, the experts recommend companies to have focus and select only one or two markets where to enter. As a general recommendation, they suggested to start with high-quality private schools because of their financial capabilities and aspirations to invest in new technology. However, they emphasized that companies should identify different customer segments and analyze their readiness and financial capabilities before selecting the target segment. The companies found that heavy market research for market selection is not necessary, nor beneficial. The companies had either followed the demand in different markets or selected the entered markets according to the existing contacts and networks. Therefore, it seems that the networks and connections play also an essential role companies' market selection strategy. Next section of this chapter describes the different strategies for matching the product and service to the client needs.

7.4 Matching the Product and Service to Client Needs

According to the findings in previous chapter, clients across the markets expect high quality from the ICT solutions and flexibility from the companies. Most of the companies were targeting their solution to high-quality private schools, which may emphasize the quality demands. However, few companies had not targeted their product to any customer segment specifically, but they still considered their clients demanding in terms of quality. In addition to the product's quality, both experts and companies emphasized that the product concept must be tailored in each market to match the customer preferences in terms of attitudes, beliefs and traditions. The data indicated that even though Finnish pedagogy is highly valued globally, the Finnish pedagogical concepts such as individual learning path may not fit to the target market's culture and values. Therefore, it is essential to localize the product's conceptual model to the local customer needs.

The findings in previous chapter also indicated that teachers need training with technology across the markets. The experts pointed out that technology has to be combined with teacher training to ensure teacher's capability to use the technological solution. For example, expert 2 argued that if the clients do not understand the pedagogical concept or does not know how to use the technology, they will not buy the product again:

> *"Because if these companies go and sell their applications and tools there and they don't provide the clients with the necessary educational, I mean the pedagogical understanding in parallel, the next time they will not get anything sold there." [Expert 2]*

Several other experts also argued that the clients globally do not have the pedagogical understanding how they could benefit by adopting digital solutions to teaching. Additionally, the experts commonly agreed that increasing teachers' knowledge about technologies and pedagogy is the most essential part for increasing the use of technology overall. Therefore, the experts recommended the companies to combine the technology with training. For example, expert 7 emphasized that technology must be combined with training:

> *"Well practically it means that the teachers should be trained to use these ICT solutions. The company can then think whether they should do the training themselves or should*

they for example partner with another Finnish company that does the teacher training." [Expert 7]

The companies had few different approaches to address the teachers' lack of knowledge in pedagogy and technology. Few companies had found that teacher training is something that customers are willing to pay for, but the software as a standalone product does not have much value. In addition, they considered that the software without any change and support process will not improve any learning outcomes. Therefore, these companies had decided to provide teacher training themselves together with the software. For example, company 1 elaborated their experiences about teacher training:

"What we have found out is that the software itself cannot be very costly, but other thing that we are adding to the price is teacher training. And that is something that also in Finland but especially abroad the customers are willing to pay for." [Company 1]

The problem with providing teacher training seems to be the difficulty to scale up the sales, because teacher training requires a lot of time and people. Few other companies had recruited a pedagogic expert, who visited each customer during the negotiation process to deliver the pedagogic concept of the product to the customer. These companies had found that this kind of approach is enough for their clients. Finally, few companies did not see any need for additional teacher training to be combined with their digital product. These companies reported commonly that their product had been developed to be easy to use for any teacher, and therefore the additional training would not be necessary. These companies had received very positive feedback about the usability of the product. The experts however argued that all technological solutions require training no matter the software. In order to tackle the difficulty of scaling up the business, the experts recommended to partner with a company or an organization that is providing teacher training in foreign markets.

Finally, the data indicated that companies need to understand the different objectives and aspirations that clients have for technological solutions. First, the teachers want to improve their teaching and they will often decide whether the product is good or not. Second, the school managers are looking at the brand value that the technological solution can bring to the school. Thus, both the experts and companies highlighted that a start-up company needs a two-fold sales approach to convince the clients. For example, expert 5 described how the product needs to be promoted to clients:

> *"You need a double-play approach. First, you need to convince the educators that it is going to make their life easier, not more complicated. It needs to be good for them and their students. But the second part of the communication or the video is to show the decision-maker that this thing is going to help boost their profile, their image, their probability to beat the competition." [Expert 5]*

Several experts emphasized that the technological solution is used by the teachers and therefore the product needs to improve their ability to teach their students better. Even though the teachers may not do the final purchase decision, their opinion is considered because the teachers are the ones to use the product. Thus, companies need to convince the teachers about the pedagogy and show them how the product could help them in teaching. In addition, the companies need to show the school managers how they can benefit from using the product. The experts pointed out that the managers are looking for competitive advantages compared to their rival schools. Therefore, companies should be able to clearly show what kind of results have been achieved by using the product. With clear improvements in learning outcomes, the managers can improve their image and gain competitive advantage by making the purchase. On the other hand, the managers are also interested about cost-effective solutions. For example, expert 7 described the managers' motives to buy educational technology:

> *"What kind of pedagogical results have been achieved with it (the product) or comments especially from teachers. So this is what we did with it and this is where it was handy and so on. Then also the cost-effectiveness. That is something that the investors are always interested about. They have specific budgets in school and specific budgets for purchases and you need to stay within that budget." [Expert 7]*

As described, the companies need to convince both the teachers and the school managers about the product, and therefore two-fold sales approach is needed. This approach comprises delivering the pedagogic message to teachers and indicating the results and learning outcomes to managers. To summarize, matching the product and service to client needs is essential part of successful business. The results of the study indicated that companies should be flexible, have high quality products, combine technology with training and have two-fold sales approach. However, each of the listed actions require specific knowledge of the client needs and objectives. Therefore, analyzing and understanding the client needs is a fundamental part for tailoring the product and service.

The findings suggested several strategies to address the market-level challenges in the internationalization efforts in digital education. These strategies were related to finding a local partner, building company's reliability, selecting market and customers, and matching the product and service to client needs. The next chapter discusses the implications of the findings presented in chapters 6 and 7.

8. Discussion

8.1 Overview of the Findings

The findings of the conducted study concerned both the key determinants for internationalization in digital education business as well as the strategic approaches to address the challenges in internationalization. The set of identified determinants composed four different topics that companies need to consider in the internationalization activities. In addition, the topics can be considered as challenges that companies need to address in a way or another. The second part of the findings was concerned with different kind of strategies that companies could use to address these identified challenges. Therefore, these strategic approaches can be considered as a toolkit for managers to be used in the internationalization process. Figure 8 summarizes the key findings of this thesis, and combines the two parts of findings.

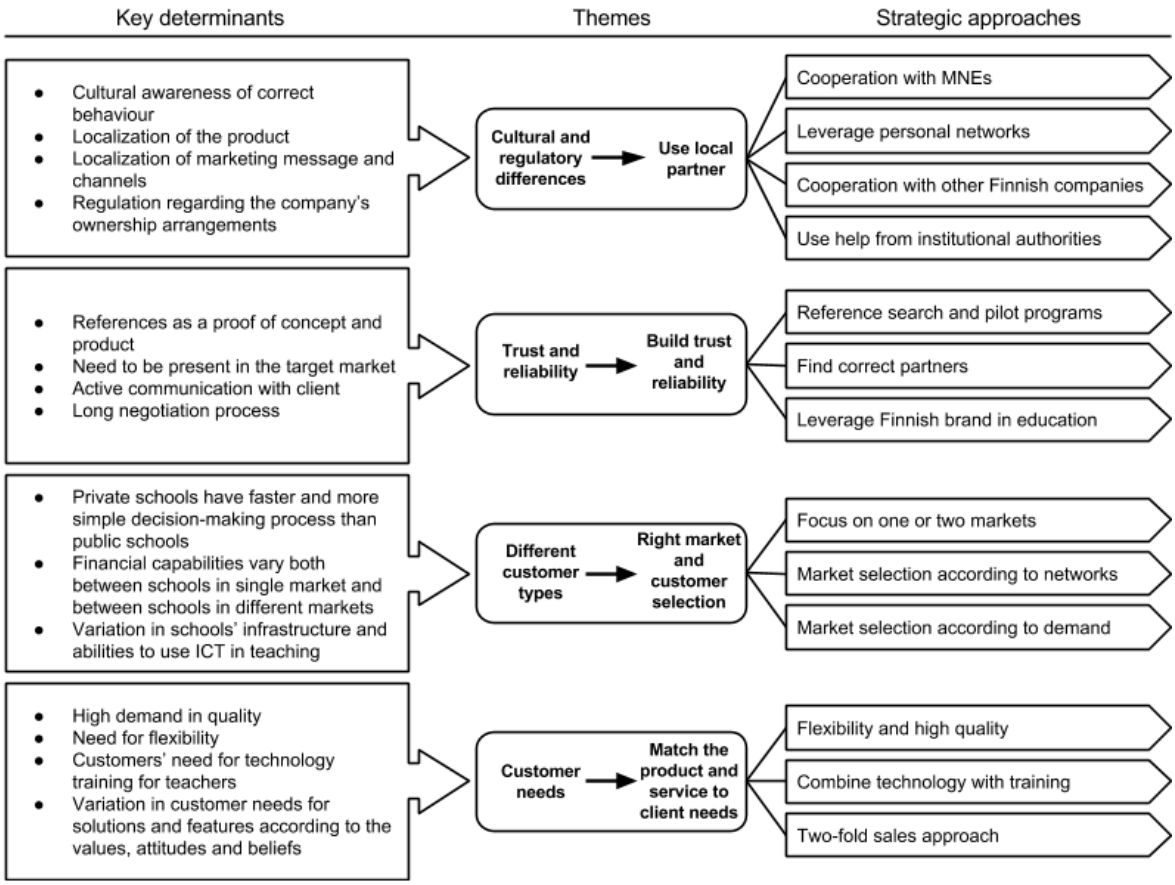

Figure 8: *Summary of the key findings of the study.*

The key themes identified in the findings compose the set of challenges that companies need to address in a way or another. The presented strategic approaches present tools that managers can use to tackle the challenge. Therefore, manager's decision on which strategic approaches are applied compose the internationalization strategy for the company. As already discussed, the selection of a certain strategic approach is depending on the company's resources and ability to implement that approach. The next sections will discuss the managerial implications of the findings. The focus in these sections is on the resource requirements and feasibility of different strategies that have been identified in the findings.

8.2 Findings Partners in Local Markets

The findings showed that understanding and being aware of the local culture, standards and traditions is essential for companies entering a new market. This finding is also supported by the previous findings of Downey and his colleagues (2005). The findings suggested that having a local partner is essential to gain knowledge about the requirements and standards in the local market. Therefore, the findings support the argument that companies should adapt the product and promotion to the local market requirements (Brouthers et al., 2013). The data revealed four different strategies for finding a local partner including cooperation with MNEs, leveraging personal networks, cooperation with other Finnish companies, and using help from institutional authorities.

Cooperation with MNEs was considered as a potential strategy for startups to find partners, because MNEs generally have good networks in several locations around the world. It seems that MNEs are generally willing to help small educational companies because as a part of their corporate responsibility strategy they want to support development of education globally. However, startups need to be active themselves to benefit from such a cooperation. The MNEs may enable certain things, provide validation for the product, and provide help including introductions to possible clients and partners, but the rest is up to the startup. Also Coviello & Munro (1997) found that internationally fast growing new ventures were often able to leverage MNEs' sales channels and existing relationships for international growth. Furthermore, few other researchers (e.g. Gabrielsson & Kirpalani, 2004) had found that MNEs could help

new ventures in several other ways such as providing funding, offering training, and co-marketing of the products. In order to gain these partnerships with MNEs, startups need to demonstrate the win-win situation, present good and impactful story, and have a person to introduce them to the managers of the MNE. Therefore, gaining such partnerships may be challenging, especially if the company does not obtain a good connection to the MNE, who could make the introduction. On the other hand, cooperation with large companies could offer access to good networks, from where startups could find good and reliable local partners. Following the findings of Coviello & Munro (1997), startups should acknowledge the speed that internationalization can occur through network relationships and such cooperative activities. Since the sample companies' cooperation with MNEs were relatively new phenomenon, the fast internationalization had not occurred in case of any of these companies. However, also Finnish digital education companies should acknowledge the potential in cooperation with MNEs, and therefore systematically search for such opportunities.

Another option for finding local partners is leveraging own personal networks. In many of the sample companies, few employees had been working in the education industry for several years and had therefore gained an extensive global network. Levering these networks could enable finding local partners. It seems that having a one good connection in certain area offers access to several other good connections. Companies should note that they do not need to have a direct connection to the possible partner's organization, but someone who could make the introduction with the possible partner. Startups should bear in mind that they have access not only to people in their own network, but also to the people in any of their connection's network. The number of potential partners and clients that can be found this way is tremendous in case of most companies in digital education.

Few of the sample companies had used their connections to other Finnish companies in digital education business and found local partners through them. Several Finnish companies are already operating in a number of countries around the world, and thus finding a partner through other Finnish companies is a viable strategy. Generally, Finnish companies do not need to consider other Finnish companies as their direct competitors, because the digital education market globally is very large and the

solutions are rarely overlapping. Sharing a local partner with another Finnish company may be mutually beneficial, because cross-selling the products could be more efficient than selling the products separately. Such inward-outward pattern in cooperation with a domestic partner may also lower the uncertainties from the later international operations (Korhonen et al., 1996). The findings also indicated that in certain markets, the clients would be willing to buy a full solution rather than single products separately. Thus, having a shared sales-partner and cross-selling the products of two or more companies could offer synergies to all participating companies. Especially the interviewed experts hoped that Finnish educational companies would cooperate more. They found that through cooperation both the risks and the resource requirements would be minimized. Also in previous studies several researchers (e.g. Coviello & Munro, 1997; Gabrielsson & Pelkonen, 2008) have emphasized the importance of strategic alliances among small companies in successful internationalization.

All the presented strategies above require connections either to other companies or someone who knows the local partners. In case a startup does not obtain this kind of connections, they can still use the help of Finland's institutional organizations such as FinPro and embassies. These organizations provide help also in partner search, and generally they seem to have relatively good connections locally. However, the sample companies in this research generally identified this as a possible strategy, but only few had taken actions to use it. It seems that companies tend to select other strategies for finding local partners before using the help from the institutional organizations.

8.3 Building Reliable Image Among the Clients

The findings showed that clients across the markets do business only with operators who they can trust. The sales process and negotiations are relatively long, because clients want to build a good relationship and know the operator that they are cooperating with. Companies should also note that long negotiation process and trust building requires time and financial resources. An essential part of startup's successful market entry is to build credible and reliable image of the company. The study of this thesis revealed three different strategies for doing this including reference search and pilot programs, finding correct partners, and leveraging Finnish education brand.

The results suggested that references play essential part in convincing the potential customers about the offered solution. High quality references help company to build reliable and trusted image, because many clients look up to certain organizations. High quality references could be for example other highly appreciated schools using the product, top-ranked universities supporting the pedagogic approach, a research center validating the content, or a large company identifying the company's product as a high potential. These kinds of references help startups to illustrate to potential client the quality and reliability of the offered product. In addition, universities and research centers can offer content knowledge, which may help small companies to innovate highly differentiated products (Zahra & Bogner, 2000). Almost all the sample companies in the study had some references for their product. However, few companies stood out because of the great amount of high profile references they had. These companies had systematically searched for these references from internationally top-level schools, Universities, and research centers. Also Zahra & Bogner (2000) recommended technology-focused new ventures to leverage the available external resources. It seems that Finnish educational companies can gain high-profile references in the same manner as making cooperation agreements with MNEs. Startups need to provide the win-win situation to both parties and have strong story and mission for improving education. In addition, it seemed that such references from high profile operators were easier to gain than cooperative agreements with MNEs. To validate the product, companies can also carry out pilot programs, in which different schools use the product and give feedback. These programs seemed to be instrumental both in developing the product and getting references from the piloted schools. The companies should therefore attempt to carry out the pilot programs in such schools that can be considered also as good references.

Different strategies for findings partners was already discussed in the previous section. However, the findings showed that the partner's reliability and reputation determines how the startup is profiled in the local market. The better the image of the partner, the better the initial image of the company that is entering the market. Therefore, startups should be careful in selecting the partners and make sure that their reputation in the local market is good. A trusted partner seemed to help clients to trust the sample companies more easily. Companies entering foreign markets

should put significant efforts on the partner selection, because the partner represent the company at the location and influences greatly to the reliability and credibility of the company. For analyzing the possible partner's reputation in local markets, startups can use the help from Finnish embassy of the specific location.

Finally, the findings showed that leveraging Finnish education brand help companies to gain trustworthy image and validation for the product. The findings showed that the brand of Finnish education is very good globally, and the clients are therefore interested about Finnish companies' products. However, many sample companies considered that the brand value could be used even more, and that Finnish companies are often too modest in promoting their origin. Finnish education brand cannot be imitated by foreign competitors, and therefore it offers an unique competitive advantage to all Finnish companies (Wernerfelt, 1984). Nonetheless, companies should note that leveraging the Finnish brand in education will not ensure the purchase-decision of the customers. The brand helps companies to open conversations with possible clients, but convincing them to buy requires demonstrating the product's high quality. In addition to the Finnish education brand, it seems that overall Finnish people are considered trustworthy, which helps clients to trust Finnish companies. On the other hand, some interviewees argued that the Finland's good brand especially in education may not last for long time, because the education in Finland is not developing fast enough compared to other countries in the world. Therefore, companies should use the opportunity while it still exists and the institutional organizations should put efforts in developing the Finnish education in order to maintain the good brand image.

8.4 Selecting the Right Customer Segment

Schools in different markets differ greatly in several ways. The findings showed that the customers differ especially in their ownership arrangements (private versus public school), financial resources, and infrastructure. The customer types seemed to differ both between and within the markets. For example, in all markets there seemed to be different segments of private schools from low to high tuition fee schools. The level of tuition fee has direct effect on the school's financial resources as well as capability to build proper infrastructure. Since the customers differ already within

single markets, companies need to select the right market and the right customers group within the market to succeed. To address this challenge, the findings suggested three different strategies including focus on one or two markets, market selection according to networks, and market selection according to demand.

The findings showed that entering a new market requires significant amount of resources from a company. Thus, companies should have their focus first on one or two markets which to enter. All the markets differ in several ways and succeeding in any market requires significant efforts from a company. While focusing on one or two markets in essential, it also makes the right market selection more important. The findings showed that companies should not select the market according to the market size or heavy market research. It seems that market research is not good strategy for market selection, because the customers in single market may differ and the successful sales requires relationship building. In addition, selecting the market according to the size may not be the best approach, because it may engender a risk of losing the focus. As shown in Table 3, the countries that the sample companies had entered were relatively far from the domestic market Finland. Thus, this findings supports the previous finding that physic distance is less meaningful criteria for INVs in selecting markets (Keeble et al., 1998).

It seems that there are two ways to select the markets effectively. First, some companies selected the markets according to their existing network. These companies selected those markets that they had the best potential partner or people to work with. These companies argued that they select those markets that they have the best potential to succeed in. Therefore, the companies did not consider the market characteristics as much as their own resources within the target location to succeed. Companies need to adopt to the local culture and customer needs in all markets, and therefore many companies do not consider the market characteristics as important factor in market selection. Second, some companies selected the markets in which they saw the highest demand for their product. These companies argued that there is no point of pushing the idea and solution to a country in which the customers do not want the product in the first place, if there is another country where the potential clients are already convinced about the product. Selecting the markets according to

the existing network is possible only for those companies who already have existing connections in many countries. Indeed, the likelihood of success relies very much on the people who are working in the target location, but this method for selecting the market ignores the market characteristics and whether the product really fits to the need of the clients. The second strategy of selecting markets according to the demand ensures that the product fits to the needs of the customers. However, the challenge is then to find the correct people to work there. The best approach would be to combine the two strategies for selecting markets, but such a situation rarely exists for startups that there would be both high demand and good possible partners in the single location. Crick & Jones (2000) argued that INVs generally enter first the markets with highest potential, and then secondly those markets in which they have existing network and relationships. Thus, the market selection of the sample companies in this study followed their suggested market selection methods for INVs.

Finally, many of the interviewed experts pointed out that companies should carefully consider which customer segment they focus. Generally, the experts considered that the medium and high level private schools are the best target for small Finnish digital education companies, because these schools obtain good financial resources and they are relatively fast decision-makers. This way companies do not need to consider overall financial resources in the target market, because the high level private schools in almost any country are capable for making purchases at Finnish price levels. However, the companies should also analyze whether the selected group of clients are ready for digital solutions in terms of their infrastructure. Verger and his colleagues (2016) pointed out that schools do often inappropriate purchases that do not match the school's educational needs. In such situation, the schools would not probably make a new order for the product next time. The findings also showed that in several countries the availability of devices, internet and even electricity is not certain. Therefore, companies should carefully analyze the customers' readiness for the solution.

8.5 Designing the Concept to Meet the Customer Needs

The findings showed that customer needs across the markets have several similarities, but also some differences. Generally, customers in all markets expect high quality from

the products and flexibility from the companies. In addition, teachers in all markets do not obtain the competences to use technology as part of their everyday teaching. On the other hand, the customer needs differ in each market according to the local culture, values and traditions. These factors have significant influence on what kind of product and features the clients are looking for. To address these challenges, the results suggested three different strategic approaches including offering high quality and flexibility, combining technology with training, and two-fold sales approach.

To compete in the foreign markets, small Finnish companies need to offer high quality products and flexibility to compete against large multinational enterprises. The clients, especially private schools, have often high quality standards, and they may have selected a Finnish provider because of the good brand of Finnish education. This brand is associated with high quality because of Finland's good results in international education comparison studies. Therefore, the Finnish companies have to demonstrate high quality in their products to satisfy the customer expectations. In addition, the findings showed that one approach to compete against large companies in international markets is offering flexibility. Large companies are often offering ready-made products out of the shelf. Thus, by offering tailored products and being flexible in meeting the client needs may offer a competitive advantage to Finnish startups. Tailoring the products enables companies to address the varying needs between the customers. These needs often stem from culture or traditions. For example, in certain countries student grading is based on peer evaluations, whereas in certain countries the teacher is always evaluating the students alone. In such situation, companies need to tailor the digital product to fit to the customer needs for evaluation. This is supported by Downey and his colleagues (2005), who made distinction between collectivist and individualistic cultures, and the corresponding needs and desires for e-learning systems. To succeed, companies should carefully analyze the customer requirements and tailor the product to address these needs well.

The findings indicated that teachers are not fully competent using technology as part of their teaching, which may complicate the adoption of new technological solutions. To illustrate the digital product's advantages, companies should always combine the technological solution to teacher training. Teacher training promotes teachers'

knowledge and confidence with digital solutions (Hennessy et al., 2005; Kreijns et al., 2013; Yildirim, 2007). Training the teachers about the technology may enhance teachers' commitment to the product and therefore lead indirectly to future sales. Companies can either provide the training themselves or partner with a company, which operates the teacher training. Several experts suggested partnering with such a company, because teacher training requires lots of labor, and reduces startup's ability to scale up the business. For most companies, ability to scale up the business is crucial part of growth in global markets, and therefore partnering with such company would be ideal solution.

The findings showed that companies need two-fold sales approach to convince the clients. First, they need to convince the teachers about the pedagogic benefits and practical improvements for everyday teaching that the product could offer. Second, the companies need to show the school managers how the product will affect to the learning results and how much monetary value for the school of using the product. Especially in private schools the learning results is essential part of their sales argument to parents. With good results, the school can also set the tuition fee higher, which brings financial benefit to the school. Thus, the companies need to convince both the teachers and the managers of the benefits of the product, but the arguments for them are different.

The findings of this study provided several insights about the digital education markets and strategic approaches that companies can select. Companies need to address the major market-level challenges, which often stem from the unique characteristics of education industry and the local market characteristics. In this study, four different challenges were identified. In addition, a set of strategic approaches to address these challenges were presented. Startups should consider their resources in parallel with the market characteristics, and accordingly select which strategic approaches to apply. This selection forms the company's overall internationalization strategy.

The theoretical framework of the study suggested also many strategic approaches for entering new markets. Several of these approaches such as cooperation with other

companies and cooperation with Universities were also covered in the findings of this study. However, the findings of this study also suggested more detailed analysis of how these strategic approaches could be used and for what purposes. Interestingly, the theory of INVs suggested that companies often rely on internet in their internationalization. The findings of this study did not identify any of the sample companies relying on the internet. This may be due to the institutional complexity of education industry, which results in need for establishing closer relationships to customers than could be done on internet. The findings of this study also supported that adopting to the local market environment is important part of success in digital education business. The customers across the markets require tailored products that suit to their needs. In addition, the findings suggested that companies should adopt promotion to fit to the local culture, and companies should use local distributors in the markets. Pricing strategies varied between the sample companies in this study, which indicates that companies need to consider their pricing strategy by taking into account the market environment and the product's value to the customers. Next chapter concludes this thesis by summarizing the key findings, evaluating the study, and suggesting future research.

9. Conclusion

9.1 Summary of the Key Findings

The purpose of this study was to identify the key characteristics of digital education markets that drive companies' selection of the internationalization strategy. In addition, the study aimed at shedding light to different strategic approaches that companies could adopt to address the major challenges in the digital education markets.

The findings indicated several driving factors in the global digital education markets that affect to the market entry strategy of Finnish startup companies. These factors are related to cultural and regulatory differences, trust and reliability, customer types, and customer needs. Culture, traditions, religion and regulation all affect to company's operations in a specific market. Essentially, the results showed that companies need to acknowledge the culture's impact on manners and behavior with the local people and the need for localizing the product and marketing activities. In addition, across the markets the clients want to build trust with the person or the company they are making business with. This yields long negotiation processes, need for high-quality references, and need for being present in the target market. The findings also indicated that the customers differ both within a single market and between different markets. The main differencing factors between customers include the type of ownership of the school (private versus public), financial capabilities and barriers in infrastructure. Finally, the customers across the markets require high quality products and flexibility from the companies. In addition, in global scale the teachers need training both in technology and pedagogy. On the contrary, values, attitudes and beliefs are factors that vary between the customers in different markets, but still affect to the customer needs for digital education solutions.

The findings suggested also several strategies to address challenges in international business in digital education. First, to gain local knowledge about the culture and traditions, companies should use local partners. To find a local partner, the results suggested four approaches: using personal networks, cooperation with other Finnish companies, cooperation with MNEs, and leveraging institutional help. Ability to select

any of these four strategies is dependent on the company's resources to adopt any single strategy. Second, the findings showed that companies can build reliability by finding high-quality references, finding correct partners, and leveraging Finnish brand educational brand. Third, to select the right markets and customers, the findings suggested that companies should focus only on one or two markets, and to select the markets according to the existing personal network and customers' demand for the product. The findings also indicated that heavy market research may not be good approach for market selection. Finally, the findings indicated that matching the product and service to client needs requires flexibility, high quality product, combining technology with training, and two-fold sales approach to convince teachers and school managers.

9.2 Evaluation and Limitations of the Study

The study of this thesis included interviews with experts and companies in digital education. In such qualitative study the interpretation of the data is dependent on the researcher, and therefore subject to bias. However, the data analysis was carried out in a manner that reduced the risk of major biases.

In addition to researcher's limitations, the sample data was also limited in several ways. First, many of the interviewed experts had experience of the topic area only in certain markets or in a certain position that may cause biased experiences that do not present the true nature of issues. In addition, all the experts had been working in digital education mostly with Finnish companies. The experts' point of view was the companies that had Finland as a domestic market. Therefore, all the arguments may not hold to companies that are initially from some other country. Although the experts may have had several biases, already with the set of eight experts several the themes started to follow same patterns as already found in previous interviews.

The interviews of the sample companies were also limited in multiple ways. First, the sample size of seven companies was rather small. The sample size was limited because of the lack of appropriate companies that would meet the appointed requirements of having international activities in the field of digital education. Although many companies exist in this field, only a handful of them obtain enough experience to

contribute to this thesis. Nonetheless, the sample companies of this thesis had extensive experience and were therefore capable to provide many important insights. Second, the set of countries that the sample companies were operating was relatively limited and biased. For example, five sample companies out of seven were operating in United Arab Emirates, but only one company was operating in United Kingdom. Therefore, the sample companies' experiences from international digital education markets may not fully present the digital education market's characteristics globally. Finally, all the sample companies were Finnish, even though they were operating in other countries as well. In the education business, the country of origin may play an essential role in initial reputation and reliability of a company. Therefore, the results may not be applicable without modification to companies from other countries.

Even though both the expert and the company interviews were limited and biased in several ways, the quality of the interviews was generally very good. All the interviewees obtained a significant amount of knowledge of the topic matter and were therefore instrumental in contributing to this thesis.

9.3 Future Research

This thesis aimed at shedding light to internationalization of startups in digital education business. The contribution of the study included identification of major market-level characteristics in digital education as well as a set of strategies to address the challenges that these characteristics entail. Although the several generic market-level characteristics were identified, the future research could study different markets in more detail and attempt to categorize different markets and their unique characteristics. This would provide more detailed understanding how different countries and regions differ in terms of digital education.

In this thesis, several strategic approaches to address different challenges were presented. However, the study did not test the performance of different strategies in terms of financial indicators. The presented strategies were either recommended by the experts or adapted by some of the sample companies. Therefore, future research could evaluate the financial impact and effectiveness of different strategic approaches

presented in this study. This kind of research would be instrumental for company managers in comparing different strategies for internationalization.

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