

CHAPTER 13

International aspects of growth management in eHealth service start-ups

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ABSTRACT

Stages of growth theory provide little or no evidence regarding international aspects of growth management. Moreover, international entrepreneurship research and the international new venture approach view the growth of start-ups through the perspective of internationalisation, without a special growth management focus. There is a need for research which integrates both aspects. The start-up stage is the most critical period for the survival of a company, as decisions made during this time have a decisive influence on its success, if not survival. Digitalisation is revolutionising international business, and healthcare delivery is no exception. It provides business opportunities, even globally, for innovative start-ups. The aim of this chapter is to clarify international aspects of growth management in eHealth service start-ups. Utilising critical incident techniques and semi-structured interviews in the data collection, managerial priorities are analysed in five case companies in Finland, Sweden and the U.S. The findings demonstrate that international aspects are inseparable from the growth management of international eHealth start-ups. The key management priority areas related to internationalisation are focus, strategic management and service development and delivery.

Keywords: eHealth, start-up, new venture, internationalisation, growth, management

INTRODUCTION

The sustainability and quality of healthcare service provision are economic challenges because of increasing demand (Agarwal et al., 2010; European Commission, 2017). Digitalisation represents a key response to increased requirements for cost-effectiveness and quality improvement in healthcare systems and services (Agarwal et al., 2010; European Commission, 2018), and eHealth is one of the strongest drivers of the global transformation of the healthcare industry (Ouhbi et al., 2017). EHealth refers to the use of information and communication technologies to support health services (World Health Organization [WHO], 2016). It helps to improve communication and information sharing among health professionals, patients, and researchers in order to enhance the quality and effectiveness of healthcare services (van Limburg et al., 2011). Digitalisation is revolutionising international business (Monaghan et al., 2020; Ojala et al., 2018, 2020) and healthcare delivery (European Commission, 2018). Although healthcare is rapidly becoming more digital (Kirsch, 2002), practitioners have been slow to adopt new technologies (Kerwin & Madison, 2002; Wickramasinghe et al., 2005). As eHealth faces significant obstacles, a lack of sustainable business models is widely regarded as one of the greatest barriers (Oderanti & Li, 2018), and businesses are not currently realising the full benefits of digital services (European Commission, 2015). Moreover, lack of interoperability across health systems stand in the way of cross-border use of eHealth services (European Commission, 2018).

Start-ups are new, active, and independent (Luger & Koo, 2005), with promising ideas, organisational agility, the willingness to take risks, and aspirations of rapid growth (Weiblen & Chesbrough, 2015). Growth management concerns itself with how entrepreneurial owner-managers manage a firm's growth (Merz et al., 1994). The start-up stage is the most critical period for a new company's survival, as managerial decisions have a decisive influence on a company's success and even survival. Most new healthcare service businesses never reach the market (Kijl et al., 2010),

and eHealth innovation projects remain in a permanent pilot state (Urueña et al., 2016). Start-ups have high failure rates because they do not have resources, established effective work roles, relationships with outside suppliers and buyers, and bases of influence, endorsement, and legitimacy (Chang, 2004). Networking can complement these shortcomings and can be a driver for success (Chang, 2004; Kask & Linton, 2013).

The concept of eHealth has drawn increased interest from researchers in different disciplines, including the medical, public health, technological, and innovation management fields (Chen et al., 2014). Complexity and constantly changing business environment create new type of challenges to growth management (Amir & Auzair, 2017) and growth through internationalization is considered as perhaps the most complex growth strategy (Adomako & Mole, 2018). Some research exists on the internationalisation of large healthcare companies (Holden, 2005), but little research has been conducted on internationalisation and business aspects of eHealth start-ups (Oderanti & Li, 2018). Theoretical models and greater understanding of the activities of start-ups (Haltiwanger et al., 2013) are needed. A knowledge gap also exists regarding eHealth start-ups' growth (Saarela et al., 2018) and internationalisation. The aim of this study is to clarify international aspects of growth management in eHealth service start-ups.

GROWTH PROCESS AND INTERNATIONALISATION

Understanding start-up growth is important for management research (Davila et al., 2003). Universal models and frameworks clarify management priorities (Smith et al., 1985; Hanks, 1990) during the early stages of business growth (Phelps et al., 2007; Levie & Lichtenstein, 2010; Muhos et al., 2010). This study is based on the stages of growth perspective on business growth, often called the life cycle or configuration perspective. The perspective focusses on how managerial problems occur and how they can be managed during business growth across typical development stages (Davidsson & Wiklund, 2006). Stages of growth models attempt to explain the dynamic nature of business growth (Adomako & Mole, 2018). According to Zupic and Giudici (2018, p. 192), a research approach, which investigates the process of growth, is likely to be most useful to entrepreneurs in practice.

Unlike in stages of growth studies, internationalisation of small and new ventures has attracted increasing interest in international entrepreneurship research. These 'born global firms' (Knight & Cavusgil 1996) or 'international new ventures' (INVs) have attracted great interest (e.g., Oviatt & McDougall, 1994; Bell, 1995; Coviello & Munro, 1995; Evers & Andersson, 2021). In many cases, INVs make decisions about internationalisation before their foundation (Oviatt & McDougall, 1994) or immediately after inception. That is, the entrepreneurs operating these firms have a 'global mindset' (Nummela et al., 2004; Torkkeli et al., 2018), which refers to managerial experience, openness, risk taking, and awareness of international markets. The recent study by Ojala et al. (2018) expands the INV phenomenon towards digital-based INVs and born globals. Internationalisation opportunities in digital markets relate to a firm's ability to make its technology available on different platforms and create working ecosystems around the digital innovation.

Stages of growth research (Phelps et al., 2007; Levie & Lichtenstein, 2010; Muhos et al., 2010), and more precisely stages of growth studies focussed on service business growth (e.g., Muhos et al., 2017), provide little or no evidence regarding international aspects of start-up growth management. So far, stages of growth theory has mostly bypassed international growth management aspects. Moreover, international entrepreneurship research and the INV approach view the growth of start-ups through the perspective of internationalisation, without a special growth management focus (e.g., Oviatt & McDougall 1994).

Thus far, the growth process of start-ups and internationalisation of new and small firms have been primarily studied in isolation rather than by integrating these two research streams. However, growth is commonly a prerequisite for internationalisation, and internationalisation is often needed for growth. In this study, the authors combine these two closely cognate views of the

international growth of start-ups. The research question is: What are the growth management priorities in international eHealth service start-ups?

RESEARCH METHOD

This is a multiple case study with a holistic research strategy (Yin, 1989) focussed on business growth and internationalisation during the start-up stage of eHealth companies. We use a framework devised by Muhos et al. (2017) to analyse and reflect on the experiences of managers. The framework is a synthesis of models focussed on service business growth. This study focusses on the start-up stage, which refers to the growth through market exploration and commercialisation of services. The framework presents nine management priority areas: focus, power, structure, decision-making systems, strategic management, service development and delivery, marketing, human resources (HR), and growth management. International aspects of eHealth start-up businesses are analysed in relation to each management priority area.

Data was gathered from five eHealth start-ups, two from Finland, one from Sweden, and two from the U.S. Purposive sampling was based on the age of the company, digital health service focus, and internationalisation goals. The data were collected in semi-structured interviews with owner-managers between 2014 and 2015. The interview framework was based on the critical incident technique (CIT) (Edvardsson & Roos, 2001; Fisher & Oulton, 1999). The interviews consisted of two sections, managers' open-ended stories of the business growth and detailed descriptions of positive and negative incidents experienced during the start-up stage. The audio-recorded interviews were transcribed and analysed qualitatively. The main characteristics of the case companies are summarised in Table 13.1.

Table 13.1

The key characteristics of the case companies

Case	Location	Age (y)	Team size	Sales	Assets	Service
A	Finland	1	4	20,000 EUR	n/a	Online well-being services for workplace
B	Finland	3	6	20,000 EUR	380,000 EUR	Online services to measure and improve employee well-being
C	Sweden	1	7	1,700,000 SEK	6,415,000 SEK	Online platform for better healthcare accessibility
D	United States	2	5	6,000 USD	n/a	Mobile telemedicine application and digital service platform
E	United States	1	2	4,000 USD	22,000 USD	On-demand service for healthcare infrastructure

Selected market contexts. The contexts of this study are Sweden, Finland and the United States. The Swedish healthcare system is considered a model internationally (Organisation for Economic Co-operation and Development [OECD], 2015), and Sweden and Finland are among the most innovative countries in the world (Dutta et al., 2016). The U.S. is the global leader in research and development (R&D) funding, with a large domestic market. The U.S. cases are located in California, which has a significant start-up presence (Jones Lang LaSalle, 2014) and large amounts of funding poured into eHealth start-ups.

FINDINGS

This chapter provides analysis of general growth management and internationalisation issues in nine management priority areas.

Focus (central aim of the business)

Management. In Cases A and B, the management focus was first on the development of scalable service, gathering networks, and applying for funding. In Case B, the management focus was diluted as it was necessary for the founder to undertake parallel work to pursue funding. Case C focussed first on developing the first minimum viable online platform for potential customers, and then on finding a reference customer and investors and co-developing the service with paying customers. Scalability was important for Case D, whose focus shifted from a product-based business model to a scalable digital service-based business model. Through pivots, the company gradually moved towards a full-scale commercial roll-out. Case E did not focus purely on developing the service (marketplace) but also on attracting supply and demand among customers.

Internationalisation. Case A aimed at international business from the beginning with the U.S. as the first foreign target market.

'From the beginning, we have had U.S. what we have been desired [sic]' Case A

Case B tried to ensure success in international business by assembling an international team of co-founders.

'I was thinking of who are the best in the world to accomplish this story with me [sic]'. Case B

Cases C and D pursued customers and partners both in domestic and foreign healthcare markets immediately after the first version development. Case C did not have a clear target market, but the aim was to find customers to whose needs the company could respond. Case D found the domestic market in the U.S. constraining, so the company focussed from the beginning on several target markets domestically and overseas.

Case E adopted a different approach. The founders recognised the global, long-term potential of their service but, with a new-to-the-market business idea, they wanted to build a proven success case in their home market before scaling abroad.

Power

Management. In Case A, decision-making was participatory. The founder made the final decisions in Case B. Although many start-ups are owner-centric, authority is sometimes shared between the founder and co-founders. Case C offered all the developers the opportunity to become shareholders. The board was appointed based on experience, not ownership. Some founders were even excluded from the board.

'We decided quite early that not all the founders should be in the board. We looked at the board and what kind of skills and experience and network are we looking for in a board setting. And we found those people and we excluded part of the founders [sic]'. Case C

In Case D, the owner was willing to delegate responsibilities but was unable to find qualified individuals. In cases D and E, a common understanding of the roles and responsibilities of the majority owner and partial owner was crucial to further business development. However, the adjustment from being a solo entrepreneur to having a co-founder required trust and was sometimes difficult.

'Going from being a solo founder to having, you know, a co-founder has been difficult, because you built a vision, and now you've got to share that vision'. Case E.

Internationalisation. Internationalisation issues related to power did not occur in any of the cases.

Organisational Structure

Management. Role specialisation began early in Cases A and C as the founders focussed on networking, fundraising, and marketing. Coding of the service application was delegated to particular employees. Moreover, in Case B, the distribution of roles among the co-founder team was designed to be clear. Marketing, product-based service development, and coding tasks were differentiated.

'Quite early we started to look at everyone should not do everything. We should do what we are good at and where we can contribute the most [sic]'. Case C

Case B had a small board of only two people. The organisational structure was flat and informal in Cases B, D, and E, which means that everyone reported to the CEO and the team had multiple roles.

'So we're all wearing lots of hats and obviously the developers and the interns we have for marketing are doing the same'. Case E

In some cases, on the other hand, the start-up structure was formalised early. In Case C, the first horizontal layer was added when regular management team meetings were instituted, and Case E established a board of advisors early on. The structure became more complex after outsourcing the development team, and this required attention from the CEO of Case E. Preparations for scaling were also started.

Internationalisation. In Case B, the team, including a product developer and a sales specialist from the U.S., was formed from the existing network of the founder. Case E developed a virtual management structure and practices early on as it outsourced its software development to Romania, where it employed a team of five developers.

Decision-making Systems

Management. In a small team such as that of Case A, everyone worked in a self-guided way. Informal, free-of-charge, and participatory applications (such as Slack) were used for communication in Cases A, B, and D. Case B used an internal wiki system for early-stage organisation development, marketing, and service development. Some cases, including Case C, used more advanced systems, such as Customer Relationship Management (CRM) and other smaller business systems, to support decision-making. For management, Case E utilised affordable, widely used, and easy-to-access online services.

'We used Trello to do a lot of our project management, then we used Streak, which is a fantastic CRM'. Case E

From the outset, the company built systems to enable scaling.

'...Building systems, we had an eye towards scalability ...so that our customer experience was consistent, so that processes were efficient'. Case E

Internationalisation. Case E used virtual and globally scalable decision-making systems from the beginning to enable future international expansion.

Strategic Management

Management. Strategic planning can focus on building a scalable service business, as with Case A. The company appointed a board of advisors and external experts to consider strategic aspects. Moreover, the strategic goal was to gather people who were enthusiastic about the idea and who could promote various issues. The company acquired external expertise to fill the competence gap of the nascent entrepreneurs. These experts helped to reach the first widely known reference customers. Case B's approach was to first conduct strategic alignment activities. In addition, the boards of cases B and C were strengthened with skilled members who were able to systematically develop strategic work.

'To me that was one of the success factors were, that we didn't just run around. We had a very clear plan of what we wanted to do [sic]'. Case C

Case E began strategic planning straight from the beginning. The strategic validation of the riskiest hypothesis regarding the sharing economy-based business model and the availability of healthcare infrastructure was successful.

'We've always looked at our markets. We always knew what the potential markets were, and we always set up a matrix to kill that market'. Case E

An eHealth start-up may need to adjust its strategy several times. As cost was finally found to be a key driver of development, the owners of Case D made a strategic decision to target cost-driven markets first. In the U.S. market, the capacity for capitated space was found to be insufficient.

'It's more that we've run into obstacles and had to change our way of attacking the problem'. Case D

Internationalisation. The global market is a strong factor in the strategic planning of eHealth start-ups that aim for internationalisation. In Case A, immediately after inception, a strategic internationalisation plan was implemented with the support of a publicly funded internationalisation project, which arranged an investigation trip to the U.S. The project led to a partnership with a U.S. eHealth firm.

'Our strategic thought has been that service needs to put in shape before we can export it to a bigger market'. Case A

An eHealth start-up may have a clear idea of its target market, or may look for potential partners or customers first. Case B made a strategic decision to target the U.S. market, but its early attempts failed, so the company returned to the starting point and revised its strategy.

'It was not so easy to start abroad. We chose the Silicon Valley as a strategic step to get visibility that would help to get funding. But it's probably the most difficult place to compete. Now we have changed the strategy and go [sic] closer to Sweden to get an easier start. We will use more resources there'. Case B

A company may also choose to target domestic and international markets simultaneously as did Case C, whose born global strategy led it to its first international reference customer from Finland, and Case D, for which cost-driven capitation-based markets were the target both in the U.S. and overseas. These were the markets where the company's attributes were desired. Case D aimed primarily at Europe, with its national health systems, but also parts of Africa and South America, where cost is a driver of healthcare services.

A company must make creative strategic choices to tackle internationalisation barriers. Case E needed to create a strategy to overcome the high cost and availability barriers faced by software developers in California. As the start-up had very limited resources, the founders made a strategic decision to outsource software development to Romania.

Service Development and Delivery

Management. Customer acceptance is important for novel technology services. As a starting approach, the Case D founders contacted potential customers, healthcare professionals, before opening for business. Later, Case D pivoted its business model through several product-service trials with paying customers. Healthcare IT systems were difficult to access with new services, and finding a feasible solution took two years.

Often the primary focus of eHealth service development and delivery is to develop simple, scalable, reliable, and easy-to-adopt services. Development is often done step-by-step, allowing quick reactions to market changes and customer feedback, as with Case B, which allocated its development focus to narrowing the targeted service sector. Start-ups began by developing the first minimum viable version (MVP) of a digital service, even with public funding as with Case A, and

services were further developed with the paying customers. From MVP, Case C continued to early co-development of the beta version together with a paying customer.

'It was extremely good for us to have a real customer so we didn't just develop something from [sic] the top of our head or the way we saw it'. Case C

Unexpected obstacles may occur in service development. For instance, Case A suffered from a lack of software developers, tight schedules, and bugs in service application. The worst experience involved a failed software outsourcing project.

'We were maybe in a bit of a rush to get out our MVP... We paid too much; basically, they kept the money, and they didn't complete the project'. Case E

Despite serious challenges, Case E was able to build the service on both the supply and demand sides within an acceptable timeframe and loss.

Internationalisation. Case C launched its service first in a foreign market (Finland) as it had found the first reference customer with whom the company co-developed the beta version. Scalability and adjustability of service are important for start-ups considering several potential target markets. The aim of Case A was to develop a service that was applicable in both small and large markets and in different cultures.

'In a way, our aim has been towards it [the U.S. market] all the time and it [the trip to the U.S.] gave [sic] sense of a certain kind of understanding of what things should happen to make it possible, that is, integrations with a smart watch, at least'. Case A

Case D found beneficial partners in international non-profit organisations who helped to improve service delivery in the developing countries. Pilot projects throughout the world were carried out with an extensive network of partners. Internationalisation of service development may not be planned, but may occur as a necessary reaction to obstacles the start-up faces. For instance, after Case E's failed software development in California, the company outsourced the work to a Romanian software development team. Thereafter, the MVP was developed quickly with affordable loss. This collaboration was organised with virtual communication tools and platforms.

Marketing

Management. The first task in marketing is to create market identity. The local industry ecosystem provided visibility for Case E. The company received support from a non-profit accelerator associated with a local university and from a healthcare industry-focussed incubator. Case A began marketing efforts even before the service was ready, and they learnt about marketing in a pre-start-up incubator.

'We thought that we probably would not be able to sell it because service was not ready yet, but with layouts, we were able to find out what works and what does not [sic]'. Case A

The start-ups developed goal-oriented marketing strategies to gain visibility and good reputations among potential customers, partners, financiers, and other networks. Case A networked actively, participated in various events, and also sought any possible media coverage. For Case B, winning an innovation competition led to visibility and an elevated reputation among customers. Based on early customer feedback, Case B attracted its first large customers. However, acquiring more customers turned out to be difficult, and they recognised their lack of sales competence. Likewise, Case E had identified some initial customers to test the service, but scaling the marketing was perceived as difficult in the healthcare infrastructure business, as the pool of potential scientist customers is scattered and risk-averse. The company realised that, in the beginning, it had neglected demand side needs.

EHealth start-ups act on niche markets which often have high quality standards and are difficult to access. Case D perceived the healthcare market as very complex, constrained, and risk-averse but highly competitive. From their perspective, the only accessible part of this ecosystem was the capitated healthcare market. Targeted service users, doctors, were experienced as change resistant, but they played a key role in adoption of the new service. Case C used social media and inbound marketing strategies, and they managed to make decision-makers aware of them in Sweden.

'All you need to do is to be out there, create content and be a voice that's being heard from [sic] people we need to reach'. Case C

In the highly competitive industry of technology development, start-ups must also target marketing efforts to potential employees. A positive brand as an employer led Case B to successful recruitments.

Internationalisation. Case B selected the U.S. as its first foreign target market partly based on the expected boost in visibility. The marketing strategy of Case C was to send mass emails targeted to potential international customers.

'We spammed a lot of healthcare providers and one of them responded, and that was basically the foundation for our success'. Case C

Case D also used a multi-market approach. They offered free service trials and recruited users from 28 countries. From a marketing perspective, being mentioned in the internationally distributed report of Frost & Sullivan as the only company in the world to 'look at' was a success.

Human Resources (HR)

Management. A small start-up is centred around key individuals. Cooperation between the two founders of Case A worked well, and recruitments were successful. A medical advisor and software developer supplemented the team, which was also successful.

'In the start-up phase, the first important thing was that I get involved [sic] this founder team, the co-founders'. Case B

Case C creatively acquired expertise which the founders did not have. Developers and the chief financial officer (CFO) were engaged by offering them shared ownership in the company against their working time. In addition, board members were invited based on their specific expertise.

'The first thing we did was to find the developers, since we all had more marketing and sales backgrounds'. Case C

A start-up is fragile to changes in the team. Case A suddenly lost its first software developer, and finding a replacement was difficult. In Case B, lack of financial resources led to creative acquisitions in HR and competence through a capable core team, equity-based rewards, part-time work, and external advisors. Similarly, Case E had difficulty finding suitable 'web tech' developers in California. Creative HR acquisition strategies included an equity-based reward system, outsourcing, trainees, and external advisors. In addition, a family member worked for the start-up. Human capital was protected by building an in-house core and generating a culture of involvement and ownership.

'The vision is [sic] you are hiring entrepreneurs, not employees'. Case E

Success in recruitment is crucial, and Case B worked to build a positive employer brand, which helped in recruitment and employee commitment. The company also promoted staff well-being. On the other hand, Case D reported some mistakes related to HR which cost the team time and money. Some recruited staff did not possess the necessary threshold for ambiguity and risk. However, the company was able to build a self-driven and capable team. Within a team of five persons, the full-scale contributions and commitment of each member was required.

Internationalisation. Case B took a strategic decision to begin internationalisation efforts in the U.S. market, and an American expert was involved in the company as one of the co-founders. Case C pursued another successful international HR strategy, as after hitting the first foreign market the company found well-positioned advisors in other international markets (United Kingdom).

'To find the right people in different markets is extremely important and we definitely hit the right [sic]'. Case C

Case E acquired resources from international freelancer pools and worked virtually with a group of developers. Virtual collaboration with an international team enabled the utilisation of overseas experts and formation of cost-effective long-distance relationships.

Growth

Management. Case A financed its start-up phase primarily through investment funding and loans.

'In the spring, we had to pay wages with the loan money, so that was a tough place, but fortunately we got funding to support that side, so that it is okay now'. Case A

Not all cases found external funding at first. The founders of Case C bootstrapped the company initially to 'get things moving'. They also recruited four developers and one designer who invested 500-1000 working hours each in exchange for equity. The same approach was applied to the CFO. Moreover, the company generated revenue starting from the first reference customer. The company attracted external private investments, which enabled full-time business development. Case D was also bootstrap-funded by the founder. The CEO spent most of his time trying to raise capital, with no significant success. Convincing venture capitalists of the necessity of this new service was one of the biggest challenges. In Case E, self-funding from the founder was acquired from the founder's family, friends, and investors. Still, fundraising was extremely challenging.

'At this stage, building relationships with investors was unfamiliar territory for them; they were used to marketing within high-tech companies. We were serving a market that they were not familiar with. It was very difficult for people to fund marketplaces'. Case E

Even though Cases B and E developed customer partnerships and attracted early paying customers, cash flow was insufficient to break even. Case B backed up its digital service development with consulting work. In addition to self-funding and other private investment funds, the company efficiently acquired public funding for service development. The process of seeking funding took half of the effective working hours of the CEO. Case E chose not to provide free test periods but to charge customers from the beginning.

'Our philosophy was we weren't giving this away for free. We charge from day one and maybe why we took a while to grow [sic]'. Case E

Internationalisation. The external investment by the Finnish customer was an important turning point in internationalisation for Case C. In addition to public support, the founders of Case A invested their own money [bank loan] to participate in the internationalisation project.

Without it [investment to project], we would not go to U.S. and come back with partnership and understanding that we must be there [sic]'. Case A

Lack of financial resources limited international growth for Case B, whose international break is still in process.

'We had too little [sic] resources so we haven't succeeded yet. It has slowed down things. Basically, we are still in the domestic market'. Case B

DISCUSSION

The present study analysed five companies in Finland, Sweden and the U.S. to clarify international aspects of growth management in eHealth service start-ups. The study shows that general management priorities are essential for successful internationalisation, though not all of them are of

equal importance. Every case start-up reported critical managerial incidents related to the central management priority areas (Smith et al., 1985; Hanks, 1990) derived from the stages of growth literature (e.g., Muhos et al., 2017). On the other hand, international aspects can be seen as inseparable from the growth management process. The international aspects were related to the central aim of the business; e.g., focus (in cases A, B, C, D, and E), structure (B and E), decision-making systems (E), strategic management (A, B, C, D, and E), service development and delivery (A, C, D, and E), marketing (B, C, and D), human resources (B, C, and D), and growth management (A, B, and C). Therefore, growth can be seen as a prerequisite for internationalisation, and internationalisation is, in these cases, needed for growth. With respect to internationalisation, issues related to focus, strategic management, and service development are the most central management priorities for eHealth start-ups. On the other hand, power, organisational structure, or decision-making systems are tackled mostly internally and seem less pivotal to early internationalisation efforts.

All cases faced internationalisation issues related to the management priority area focus. The focus is at first on the development of a scalable service and building network relationships. In the previous literature, the managerial practice of joining and forming network relationships close to inception have been found to be among the most promising managerial initiatives for smooth growth and internationalisation (Etemad, 2013). Further, networks are important for INVs as network relationships provide access to external resources in international markets (Coviello, 2006; O’Gorman & Evers, 2011; Ojala, 2009, 2015). Moreover, fundraising is an integral part of eHealth start-ups’ focus. In addition to funding contributions, venture capital firms often help start-ups by providing managerial advice and arranging alliances with potential customers and suppliers (Chang, 2004).

Case start-ups conduct business planning and formal strategic planning, often with advisory boards and external experts. Start-ups employ a strategic approach to acquire external expertise. The strategy may need to be adjusted several times. Internationalisation was part of the strategic management in all five cases. The exact target market may be strategically decided, or the choice may be based on where a company finds its first reference customers. In niche markets such as eHealth services, domestic markets are often constraining, making internationalisation a necessary prerequisite for growth. One strategy is to target the domestic and one or more international markets simultaneously to ensure that at least one of the efforts succeeds. This demonstrates decision-makers’ ‘global mindset’ and openness to foreign markets (Nummela et al., 2004; Torkkeli et al., 2018). That is, they want to be born globals and seek international business opportunities immediately after establishment (Knight & Cavusgil, 1996; Oviatt & McDougall, 1994). The companies also seek partners who can help to build trust among potential customers. Internationalisation requires money, and the limited resources of an INV must be used wisely. For instance, one eHealth start-up outsourced software development abroad after an unsuccessful and expensive cooperation with a local partner.

Service development and delivery is highlighted in eHealth start-ups. Technology alone does not guarantee the survival or sustainability of a new service. The commercialisation of medical innovations requires preliminary steps, such as research and development, as well as successful sales and marketing (Mas & Hsueh, 2017). To solve these challenges in commercialisation, start-ups must actively seek partners and develop their technology. Only when the major challenges related to technology and regulations are solved can these digital-based INVs penetrate global markets (Ojala et al., 2018). The true market test of an eHealth service lies in whether it can provide value for users and the general public (Lin et al., 2010). The first MVPs are launched early and start-ups seek paying customers with whom later versions can be tested. Traditionally, in healthcare services, production and consumption occur simultaneously, requiring the local presence of the service firm (Erramilli, 1990). Modern technology allows both development and delivery of health services online without physical presence. Scalability of services and technology is of the utmost

importance for ventures which reach international markets. High complexity of healthcare systems makes it challenging to jump into multiple markets and thus to scaleup business (Mohout & Staelraeve, 2017). Barriers involve differences in cultural environments, legal and regulatory requirements, payment policies and structures for practitioners, hardware standards, and software availability (Maheu et al., 2002).

This study presents a novel approach combining both early stage growth management and internationalisation considerations, and analyses them side by side in the context of eHealth start-ups. The findings demonstrate that international considerations are inseparable from the growth management. The key management priority areas related to internationalisation are focus, strategic management, and service development and delivery. In conclusion, the stages of growth perspective could be strengthened by the integration of internationalisation aspects as elementary functions of business growth management.

Implications and Recommendations for Further Research

This study argues for the need for further research in which growth management and internationalisation are perceived as intrinsically associated. This study encourages the academic community towards a more integrated approach in research focussed on both aspects. We propose that stage of growth models could be extended to include internationalisation and context-specific characteristics of business as part of management priorities. The extended framework could be applied in the context of international eHealth start-ups. On the other hand, the authors note that international entrepreneurship research could pay more attention to growth management among INVs. This will contribute to the development of a more industry-specific and nuanced theory of growth management of eHealth start-ups.

Implications and Recommendations for Management

EHealth start-ups are dependent on different external resources and face technical and strategic bottlenecks and context-specific characteristics, such as legal and regulatory requirements and different health systems and payment policies. For eHealth service start-ups aiming for internationalisation:

- Take into account the context-specific characteristics of eHealth business and the specificities of the targeted healthcare market areas.
- (International) customers and partners must be involved in service development as early as possible to finance the development stage and to ensure user acceptance of the new service.
- Take internationalisation strategically into focus from the beginning.
- General growth management priorities need to be considered first or side by side with internationalisation; the 'basic' elements of successful start-up growth management must not be forgotten.

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EPILOGUE

Given the time elapsed since the data was collected, it is appropriate to share our thoughts on recent events related to the topic of international eHealth service start-ups. Digitization has increasingly influenced the health and wellbeing sectors, which are currently undergoing major challenges and transformations. The eHealth start-up industry is expanding, aiming to develop digital solutions to meet needs, fill gaps, and even create new markets (Elton & O’Riordan, 2016, p. 138). Access to care and lowering healthcare costs are top global health concerns, and eHealth start-ups, which can meet these challenges, have thus best succeeded at raising investor capital (Plaster et al., 2020).

According to a recently published investor report, eHealth innovation funding continues its strong upward trend. Since 2010, \$70 billion has been raised globally, and both funding levels and investor numbers increased tenfold during the 2010s (Plaster et al., 2020). Although the eHealth sector is the second most funded industry by number of deals in Europe, it takes an average of five years for eHealth start-ups to raise substantial external financing (Mohout & Staelraeve, 2017). In addition to the start-ups, which tend to raise awareness, the market includes global giant digital health players—such as Google, Apple, Facebook, and Amazon—which conduct health technology initiatives and offer services through practical modern technologies that adapt to people’s lifestyles (André, 2019; Elenko et al., 2015; StartUp Health Insights, 2014). Furthermore, several incumbent healthcare companies (e.g., Philips Medical and IBM Watson Health) have placed digital initiatives at the center of their strategies (Elton & O’Riordan, 2016). In recent years, there has also been increasing investment in China’s eHealth companies, cementing the country’s role as a hub for eHealth innovations (Plaster et al., 2020).

In December 2019, the severe acute respiratory syndrome coronavirus (which causes COVID-19) emerged from the city of Wuhan in China. Since early 2020, people all around the world have been facing unprecedented challenges and uncertainties as a result of this pandemic. Societies and economies worldwide are experiencing unprecedented exogenous shock, and global economic growth prospects have plummeted due to measures taken to prevent the spread of the virus. Closed borders and economic lockdowns have created a unique situation (Kuckertz et al., 2020). Nowhere is business running as usual, and global recession is on the horizon.

Start-ups are especially likely to be hit hard because they are typically more vulnerable to supply and financing disruptions (Kuckertz et al., 2020; Sterk & Sedláček, 2020). Reports already indicate that start-ups have endured immediate and tangible consequences of the COVID-19 outbreak, especially in the form of reduced sales paired with unchanging costs, a combination that threatens their liquidity and survival (Kuckertz et al., 2020, p. 3). In addition, border closings have hampered start-ups’ international trade and activities. However, during these unprecedented and scary times, eHealth start-ups have the potential to be effective contributors to managing COVID-19. According to a recently published report by Research 2 Guidance (2020), 44% of eHealth companies expect the pandemic to have a positive impact on their business. Telehealth solutions will benefit most, followed by remote monitoring, self-testing, and tracking and tracing (Research 2 Guidance, 2020). By providing solutions to such challenges, eHealth start-ups can play a critical role in managing the current healthcare crisis. For example, the mHealth apps used to respond to COVID-19 are related to symptom checkers and self-diagnosis tools, tracking and tracing the spread of the coronavirus, providing trustworthy information and guidelines, supporting homebound (diagnosed) patients in their self-management, and supporting medical personnel (e.g., in following up on patients confined to home) (European Union, 2020).

It is easy to say that eHealth is now more pertinent than ever. COVID-19 is transforming healthcare by changing the way people behave and how health services are viewed. The current situation has required large-scale adoption of new technologies, which is likely to radically change the eHealth sector. With physical meetings minimized, technology adoption has expanded vastly in just a couple months, and eHealth especially has made a giant leap. It is reported that more than 50% of eHealth companies expect the crisis to significantly increase patient acceptance of digital solutions (Research 2 Guidance, 2020). With governments looking for digital solutions, the pandemic has created new opportunities for innovative eHealth start-ups. For example, the adoption of telehealth has escalated as remote clinical services become an important part of fighting COVID-19. It can be assumed that investors are increasingly moving to industries such as healthcare and teleworking that are perceived as less vulnerable to the coronavirus pandemic. Funding is especially allocated to eHealth start-ups with the ability to act quickly and solutions that directly address COVID-19 challenges. In addition, eHealth start-ups' cooperation with large pharmaceutical and medical device companies can provide novel approaches to curbing the epidemic (Seah, 2020). It is estimated that over 60% of eHealth start-ups are business-to-business companies (Mohout & Staelraeve, 2017).

This acute crisis will thus have some positive effects on the eHealth sector, as eHealth start-ups are on the frontlines of building a post-COVID-19 world that utilizes technology to improve health and wellbeing outcomes. They will shape the industry's future economic activity as demand for value-added digital health and wellbeing services continues to grow. We can also assume that the eHealth market is becoming less protected due to the current crisis. Many eHealth companies anticipate that regulations will become more favorable, the market more accessible, and security and data protection rules smarter due to the enormous pressure faced by health systems to keep infection rates down (Research 2 Guidance, 2020). The COVID-19 crisis may also enhance eHealth start-ups' opportunities to access the market by opening doors to complex healthcare systems. From the perspective of international eHealth service start-ups, this may lead to scalable business opportunities. Before the current crisis, resistance to innovative services and practices was prevalent in the public-driven healthcare industry, where old and traditional practices dominated. As technology adoption has now spread throughout the healthcare sector, however, COVID-19 may prove a source of health sector innovation.

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