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**A MODEL FOR MEASURING GROWTH READINESS  
OF INTERNATIONALIZING SMES**



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## ABSTRACT

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Organizational growth through internationalization with limited resources requires good business process management and the right digital technologies to support the growth. In the fast-paced environment in which fast growth small and medium-sized enterprises (SMEs) operate, good business process management should be considered from the ambidextrous business process management perspective, simultaneously focusing on managing the current processes and continuously looking for new opportunities while adapting the organization to the changing environment. Growth-oriented SMEs require easy-to-use solutions for managing growth, digital internationalization, and determining the current and the desired state in order to know how to proceed with digital internationalization. However, little is known about how to assess the maturity of internationalization in a growth-oriented SME context. To address this gap, the main objective of this research was to create a generalizable model to manage and improve the internationalization process of SMEs by following the design science research methodology (DSRM) and by utilizing the DSRM process model. The structure of the developed model was based on business process management thinking and maturity models. The model was based on extant literature as well as expertise and experience of the fast growth companies' community. The model was validated by domain experts on content, practicality, and usefulness, while growth companies evaluated the model in feasibility, usability, and utility. The results revealed that the model was considered practical and scalable, believed to produce useful results at all stages of internationalization. Moreover, the growth companies had intentions to continue using the model in the future. The novelty of this research lies in the design and development of a model for measuring growth readiness of internationalizing SMEs in order to support the internationalization process of growth-oriented SMEs.

Keywords: internationalization, organizational growth, digital technologies, ambidextrous business process management, maturity model, SME

## TIIVISTELMÄ

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Malli kansainvälistyvien pk-yritysten kasvuvalmiuden mittaamiseen

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Organisaation kasvu kansainvälistymällä rajoitetuilla resursseilla vaatii hyvää liiketoimintaprosessien hallintaa ja oikeita digitaalitekologioita kasvun tuke-  
miseksi. Nopeatempoisessa ympäristössä toimivien nopeasti kasvavien pk-  
yritysten näkökulmasta hyvää liiketoimintaprosessien hallintaa tulisi katsoa  
ambidekstrisen eli kaksitahoisen liiketoimintaprosessien hallinnan näkökul-  
masta, keskittyen samanaikaisesti sekä nykyisten prosessien hallintaan että uu-  
sien mahdollisuuksien etsimiseen mukauttaen samalla organisaatiota muuttu-  
vaan ympäristöön. Kasvuhakuiset pk-yritykset tarvitsevat helppokäyttöisiä rat-  
kaisuja kasvun hallintaan, digitaaliseen kansainvälistymiseen sekä nykyisen ja  
halutun tilan määrittämiseen, jotta tiedetään, miten edetä digitaalisessa kan-  
sainvälistymisessä. Kuitenkin vain vähän tiedetään siitä, miten kansainvälisty-  
misen kypsyttä voidaan arvioida kasvuhakuisissa pk-yrityksissä. Tutkimus-  
kuilun kaventamiseksi tämän tutkimuksen päätavoitteena oli luoda yleistettävä  
malli kasvuhakuisten pk-yritysten kansainvälistymisprosessin hallitsemiseksi ja  
parantamiseksi seuraamalla suunnittelutieteellisen tutkimuksen metodologiaa  
ja hyödyntämällä suunnittelutieteellisen tutkimusmenetelmän prosessimallia.  
Kehitetyn mallin rakenne perustui liiketoimintaprosessien hallinta-ajatteluun ja  
kypsyysmalleihin. Malli kehitettiin olemassa olevan kirjallisuuden perusteella  
ja hyödyntämällä kasvuyritysten yhteisön asiantuntemusta ja kokemusta. Alan  
asiantuntijat validoivat mallin sisällön, käytännöllisyyden ja hyödyllisyyden  
perusteella, kun taas kasvuyritykset arvioivat mallin toteutettavuuden, käytet-  
tävyuden ja hyödyllisyyden perusteella. Tulokset paljastivat, että mallia pidet-  
tiin käytännöllisenä ja skaalautuvana, ja sen uskottiin tuottavan hyödyllisiä tu-  
loksia kaikissa kansainvälistymisen vaiheissa. Lisäksi kasvuyritykset aikovat  
jatkaa mallin käyttöä myös tulevaisuudessa. Tämä tutkielma tarjoaa uuden ta-  
van lähestyä kasvuhakuisten pk-yritysten kansainvälistymisprosessin tukemis-  
ta kehitetyn kansainvälistyvien pk-yritysten kasvuvalmiutta mittaavan mallin  
avulla.

Asiasanat: kansainvälistyminen, organisaation kasvu, kaksitahoinen liiketoi-  
mintaprosessien hallinta, digitaaliteknologiat, kypsyysmalli, pk-yritys

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# 1 INTRODUCTION

External pressures, the increase in competition, increasing complexity, globalization and digitalization require internal business responses, which is to say, increase in flexibility, agility, and experimental culture. Growth belongs to the natural process of business, moreover, in today's competitive business environment growth is more important than ever (Durmaz & Ilhan, 2015). In order to sustain competitive advantage, or even survive, good end-to-end business process management (BPM) is required. Moreover, the right digital technologies are needed to help organizations to cope with the challenges of change while delivering significant growth.

At the same time, organizations should look ahead and prepare for the future in order to enhance their competitive advantage, they should align their business processes, which are supported by information technology (IT), with the business environment (Trkman, 2010). BPM definitions and models are to a large degree based on past knowledge, existing knowledge, and the attempt is to experiment and adapt them for the future needs through best practices (Lindsay, Downs & Lunn, 2003). However, there is little understanding of how BPM practices and tools can be successfully utilized in today's extremely dynamic business environment. BPM in the digital age requires new ways of thinking and managing processes that go beyond structuring and optimizing clear-cut processes. Instead of focusing on an inside-out approach where process improvement and problem-driven initiatives are at the core, deployment of opportunity-driven, proactive, and context-sensitive process thinking is needed. (Imgrund & Janiesch, 2020.) Therefore, implementation of an ambidextrous approach to BPM is required, showing exploitative and explorative BPM at the same time (Imgrund & Janiesch, 2020; Rosemann, 2014).

All organizations, regardless of size or industry, have business processes (Scheer & Hoffmann, 2015). As an organization grows, business processes and the supporting IT need to adapt to the changes. Therefore, it is important for organizations to occasionally review the current situation and determine what needs to be done next. Maturity models are suitable tools for assessing the cur-

rent state, developing the desired state, as well as comparing capabilities within the industry. (Virkkala, Saarela, Hänninen & Simunaniemi, 2020.)

Moreover, organizational growth as a phenomenon has many different aspects. High-growth firms exist in all industries (Coad et al., 2014; Du & Temouri, 2015; Gabrielsson, Dahlstrand & Politis, 2014; Henrekson & Johansson, 2010) and they make a major contribution to employment and economic growth (Bravo-Biosca, Criscuolo & Menon, 2013; Du & Temouri, 2015; Coad et al., 2014; Henrekson and Johansson, 2010). Therefore, it has been considered important to foster the development of high-growth firms (Du & Temouri, 2015). High-growth firms have been the interest of research. Since 2010 a Google Scholar search shows more than 15 000 articles having “high-growth firms” or “gazelles” in their title, and with “fast growth SMEs” 900 articles.

Small and medium-sized enterprises (SMEs) play the key role in most economies (OECD, 2017). For example, in Finland, 99.8% of businesses are categorized as SMEs and the SME sector accounts for more than 40% of the national GDP (Yrittajat, 2018). The definition of SME depends on the size of the domestic economy. The OECD (2017) refers to SMEs as firms with less than 250 employees, breaking them further into micro (1-9 employees), small (10-49 employees) and medium (50-249 employees). The fast growth SMEs are defined as firms willing to take risks, to be innovative, and willing to introduce aggressive competitive actions, and to grow faster on average than their industry peers (Upton, Teal & Felan, 2001).

Growth can be defined as “firms growing at or above a particular pace, measured either in terms of growth between a start and end year, or as annualized growth over a specific number of years” (Coad et al., 2014). Penrose (1959) differentiates growth as a process and size as a state, where size will be the by-product of the growth process. Eurostat and the OECD recommend that high-growth firms (HGFs) should be defined as firms with at least 10 employees at the start of the growth period and annualized employment growth exceeding 20% during a 3-year period (Eurostat-OECD, 2007). Scalability is often connected with ability to grow fast without affecting the constructs of the structure of the firm (Monteiro, 2019). The terms used for fast growing firms vary in the literature, some use “HGFs”, some “scaleups”, some “gazelle”, which is associated with an animal famous for its swiftness or speed, some use “high-impact firms”, which refers to the impact of growth companies to the employment and the society. Some of the terms are used interchangeably, however the difference between “gazelle” and HGF is that gazelle is a young firm, whereas HGF has no such limitations. (Gabrielsson et al., 2014). Coad et al. (2014) believe that there will be no single definition for HGF, as the selected definition depends on the type of study and the research question.

The growth companies in this study are defined and selected based on their growth potential, which has been identified by the Finnish business growth sparring program and explained in section 2.1, as well as on the basis of the companies’ international orientation.



## 1.1 Research problem and motivation

The motivation for this study emerged from the author's own observations on challenges and opportunities fast growth SMEs encounter during the growth process. Rapid business growth and limited resources require good BPM and the right digital technologies to support the growth. However, in the fast growth SMEs context, good business process management does not necessarily mean the same as when considering large organizations or SMEs in general. Moreover, the implementation of BPM activities has been criticized for a lack of actual guidelines on how to put them into practice (Denner, Püschel & Röglinger, 2018).

Offermann, Levina, Schönherr and Bub (2009) propose using literature review and expert interviews in order to make a problem more relevant to a larger audience. Firstly, a literature review for understanding the factors of growth is conducted in order to have an even better understanding on the phenomenon of growth, as well as an overview of the extant research on fast growth companies. Secondly, discussions with professionals working with growth companies, in addition to going through a dataset of nearly 600 responses on growth companies' challenges and development needs, confirmed the need for a practical model to manage growth, especially in the fields of sales, marketing, international operations, and technology management.

Moreover, it has been recognized that although SMEs play the key role in most economies, they tend to be underrepresented in international trade (OECD, 2017). Thus, in order to provide the needed support for the growth company community, the research focuses on the process of digital internationalization.

While going through literature, no model was found that targeted SMEs internationalization. Moreover, processes are everywhere but standard BPM do not seem to find its way to the fast-paced environment of fast growth SMEs. The traditional BPM thinking is supportive of standardized processes in a stable environment, which is not the environment where growth companies operate. Furthermore, according to Hammar (2015) all work is process work, therefore it is necessary to identify appropriate ways to manage growth companies processes.

Also, in order to manage growth, it is essential to assess the current situation to determine where to go and what to do next. Maturity models have been used in a variety of fields to assess the as-is and to-be stages. However, based on the literature review conducted, the existing maturity models cover many areas but not specifically internationalization. In addition, Virkkala, Saarela, Hänninen and Simunaniemi (2020) observed a growing trend of maturity models in the context of SMEs but concluded that there is still a need for SME focused maturity model development. Moreover, maturity models have been considered complex, covering everything possible, and difficult to put into practice (Spanyi, 2015). Also, the interviews with domain experts revealed that

the developed model for growth-oriented SMEs is something novel they have not seen before. Therefore, literature review and the feedback from domain experts confirmed the research gap and the need for a novel maturity model targeting growth-oriented SMEs digital internationalization.

Moreover, the study is motivated by the idea that one size does not fit all, however, it can be possible to simplify existing ideas and build a model that may fit to many stages and situations in the context of growth-oriented SMEs digital internationalization.

## 1.2 Research objective and questions

After defining the problem and motivation, it is essential to define specific objectives and research questions. Three research objectives can be identified, firstly, the objective is to manage and improve the internationalization process of growth-oriented SMEs by building a generalizable model applying design science research. The aim is to approach digital internationalization with BPM thinking, as well as consider the requirements set by the Finnish business growth sparring program community. Secondly, the aim is to contribute to the design theory by presenting a model based on extant literature and experiences from the fast growth companies' community. And thirdly, contributing to the design practice by describing the development process as well as reflecting the development process to the proposed generic development process model.

The defined solution requirements include focus on internationalization, simple structure, and guidelines with supportive questions in order to lower the threshold for model use while considering limited resources and a turbulent environment. Moreover, the model should help growth-oriented SMEs to assess their current situation and define a plan for improvement from the perspective of internationalization.

Therefore, the research questions that the study seeks answer are:

- What kind of model should be developed for supporting growth-oriented SMEs to manage and improve their digital internationalization process?
- What are the components required to implement internationalization?

## 1.3 Research contribution

The aim of design science research is to build a problem-solving model that contributes to current research. Not only must the solution contribute to current research, but it must also be relevant for researchers and/or practitioners. (Becker, Knackstedt & Pöppelbuß, 2009.)

Gregor and Hevner (2013) identify four types of knowledge contribution:

- Routine Design: Application of known solutions to known problems
- Exaptation: Extending known solutions to new problems (e.g., adopt solutions from other fields)
- Improvement: Development of new solutions for known problems
- Invention: Inventing new solutions for new problems.

The contribution of this study is a development of a new solution, a process-based conceptual model, which guides growth-oriented SMEs on how to assess digital internationalization initiatives, to a known problem, which is challenges with the internationalization process. Therefore, the knowledge contribution of this study is improvement based.

However, according to Gregor and Hevner (2013) nothing is really “new”, instead everything is derived from something else or builds on some previous ideas. Therefore, the contribution is assessed in terms of how it can be applied to the business needs in an appropriate environment, while adding content of knowledge base that can be further researched (Hevner, March, Park & Ram, 2004).

#### **1.4 Structure of thesis**

The remainder of the thesis is structured as follows. Chapter 2 introduces the key concepts, including organizational growth, internationalization process, digitalization and digital technologies, how digital technologies are used in the process of internationalization, business process management from the traditional as well as from the digital age perspective, maturity models and their use, and finally summary of the literature review. Chapter 3 presents the research methods, the research process, and data collection and analysis. Chapter 4 describes the design and development process of the model. Chapter 5 presents the evaluation of the model from the experts as well as from the growth companies’ perspectives. Chapter 6 summarizes the results and discusses the contributions of this research, presents limitations and proposes further research. Finally, chapter 7 provides the conclusion of the study.

## 2 MANAGING GROWTH IN INTERNATIONALIZING SMES

This chapter presents the theoretical background of this study. The elements of growth management presented in this chapter consist of digital internationalization, business process management and maturity model. The study aims to design and develop a model for growth-oriented SMEs to manage their digital internationalization process regardless of whether the internationalization process is at the beginning or at a later stage. Considering the key concepts of this study, the first part of the theoretical background focuses on organizational growth, the internationalization process of companies, digital technologies, and digital internationalization, from which the content of the model is built. The model structure is based on ambidextrous business process management (BPM), consisting of both exploitative BPM and explorative BPM. In order to understand the overall concept of BPM, it is important first to present the traditional perspective, covering the core elements of BPM and the BPM life cycle, and then consider the ways to view BPM in the digital age, covering the role of context in BPM as well as agile BPM perspective. The maturity model is one of the key concepts in the design of the internationalization process model. Therefore, the concept of maturity models is presented, comparing several different types of maturity models and their structure in general. Finally, a summary of the literature review is presented.

The literature of this study includes a wide combination of scientific research articles, conference proceedings and books. Given the subject of this study, it was not possible to include only peer reviewed articles but to expand the search into conference papers. The starting point was to understand the phenomenon of growth and thus keywords such as "high-growth firms" and "'company growth' OR 'firm growth'" were used and subsequently narrowing down the search adding "SME" as well as using "fast growth SMEs" as a keyword. Moreover, conjunctions "OR" and "AND" were used to narrow down the number of articles. Distinct topic groups were detected while narrowing down the search into "fast growth SME-related", "business process management-related", "internationalization-related", "digital technologies-related",

and “maturity model-related” topics. The search was continued using a variety of related keywords, such as “agile BPM” and “ambidextrous BPM” and phrases, such as “‘digital technologies’ AND ‘internationalization’”, “‘internationalization’ AND ‘SME’”, “‘fast growth company’ OR ‘rapid growth company’ AND ‘maturity model’”, “‘internationalization’ AND ‘maturity models’”. Google Scholar and IEEE Xplore were used for searching articles. The selection of articles for a more detailed review was done based on title, abstract, publication information, the year of publication while also paying attention to the number of citations. During the read through of the selected articles, more relevant articles were found in the references section, which were searched using Google Scholar, scanned through, and chosen as applicable. The search was considered complete when the state of saturation was reached, in other words, the same articles were referenced, and no new concepts were considered relevant to the study.

## 2.1 Organizational growth

Organizational growth can be achieved in different ways. Growth can be organic (internal) or acquired (external), where organic growth occurs through new employment, sales from new customers, sales from new products/services or sales from new markets, whereas acquired growth occurs through mergers and acquisitions (Coad, Daunfeldt, Hözl, Johansson & Nightingale, 2014; Lockett, Wiklund, Davidsson & Girma, 2011; Achtenhagen, Naldi & Melin, 2010).

The extant literature on firm’s growth provides various ways of measuring growth. Over the time growth has been measured using different time periods and by using sales/turnover, number of employees, growth willingness/growth intentions, profitability, or combination of the previously mentioned. Majority of the existing research does not provide a motivation for the use of a particular growth indicator or formula. Most of the studies have attempted to discover the why behind the growth, thus concentrating on finding the antecedents of growth, namely ability, need for achievement, and opportunity, whereas less studies have concentrated on the growth process itself. (Achtenhagen et al., 2010.) On the other hand, McKelvie and Wiklund (2010) argue that previous studies have ignored “how” companies grow and instead concentrated on the question of ‘how much’ companies grow. Due to the differences of definitions and measures, comparing the findings of different studies is relatively difficult (Gabrielsson et al., 2014; Delmar, Davidsson & Gartner, 2003). Moreover, Achtenhagen, et al. (2010) suggest that a gap exists between what scholars define as growth and how growth is understood by practitioners.

The literature about firm growth frequently references Penrose’s theory of growth (Lockett et al., 2011; Achtenhagen et al. 2010; Du & Temouri, 2015). Based on Penrose’s theory, future growth opportunities or constraints are accumulated based on past growth (Lockett et al., 2011). However, Parker, Storey and Van Witteloostuijn (2010) show that routine application of lessons learned

from the past growth are unlikely to result in future success. Moreover, Greiner (1998) argues that practices that were successful in the past may cause crises in the future. Growth can be seen as a process and as an internal development. Growth should not be treated as a dependent variable but as an intermediary variable in the process of studying other outcomes, such as the improvement of performance, which are leading to higher company value. (Achtenhagen et al., 2010.)

A firm grows through sequential phases, from birth to maturity, having different priorities, configuration issues and strategies during the growth process (Dillen, Laveren, Martens, De Vocht & Van Imschoot, 2014). After a period of high growth there can be a period of inefficiency due to additional organizational complexities that are caused when adjustments and organizing of management and resources as the firm grows are not done in due time (Du & Temouri, 2015). Also, during the growth process a firm can encounter a number of organizational and managerial challenges that can diminish the benefits of growth (Senderovitz, Klyver & Steffens, 2016).

Thus, all high-growth firms do not grow the same way (Delmar et al., 2003). What is more, factors, such as size, age, legal form, etc., influence the growth rate (Coad et. al., 2014). Some studies doubt the existence of persistence in high growth (Hölzl 2014; Daunfeldt and Halvarsson 2015). Moreover, there are different results on whether firm size and age are key features of persistent high-growth firms (Bianchini, Bottazzi & Tamagni, 2017). Gabrielsson et al. (2014) find that the most important factor affecting whether the high growth is temporary or sustainable is related to increasing the number of exporting countries and focusing on development activities, which will result in sustained growth. Growth orientation can be treated as a precondition for growth (Nummela, Puumalainen & Saarenketo, 2005). Furthermore, it has been recognized that the survival of the firm as well as the growth depend on external and internal factors (Arasti, Zandi & Bahmani, 2014). Conditions within the firm, such as managerial ability, the external environment, which is to say the markets, and the combination of internal and external conditions, meaning the uncertainty and risk, can limit the growth. Moreover, external changes in markets, technology, or customer preferences, may change how the firm's internal resources are employed. (Penrose, 1959.)

The growth firms are often identified as the "heroes" in the economy, for example by supporting the highest growing firms in various events (e.g., "Entrepreneur of the Year" etc.) (Senderovitz et al., 2016). Finland's largest business growth sparring program selects and awards annually the most potential growth-oriented companies based on four criteria: market potential, the team, growth ability, and proof of performance. In other words, the factors considered are company's growth willingness, the diversity of the team, scalability potential and the potential of the market environment and networks. (Kasvu Open, 2020.)

As a firm grows, it generates new resources that provide new potential resource combinations, which in turn can create new growth opportunities for the

firm. Lockett et al. (2011) state that the firm's resources are never utilized in full. Furthermore, according to Penrose (1959), expansion is possible as long as the resources are not fully used. Different dimensions of growth are relevant in different companies in different settings (Achtenhagen et al., 2010), thus providing multiple options for enabling growth. This study focuses on growth through internationalization and the internationalization of firms is described next.

## 2.2 Internationalization of firms

Internationalization refers to the process of increasing company commitment to international markets by means of exporting, foreign investment or opening of subsidiaries (Dethine, Enjolras & Monticolo, 2020). Besides involving sales and marketing, internationalization can also extend to sourcing, production, and research and development (Cerrato, Crosato & Depperu, 2016). In this research internationalization refers mainly to exports and related activities.

Olejnik and Swoboda (2012) believe that SME internationalization can happen through different patterns. Moreover, Dethine et al. (2020) state that the stages of the SMEs internationalization process are not always gradual. The extant research on SME internationalization distinguishes three types of internationalization patterns: traditional based on the Uppsala model, born globals, and born-again globals (Olejnik & Swoboda, 2012). The Uppsala model by Johanson and Vahlne (1977) has been claimed to be the most suitable for all types of economies, companies, and situations (Skudiene, Auruskeviciene & Sukeviciute, 2015). According to the Uppsala model the internationalization process is gradual, the so-called establishment chain of internationalization pattern starts with no regular export, then proceeding to psychically and/or geographically close markets similar to the home market using low-risk and low-commitment entry models, such as exporting via agents, in order to avoid risks and to compensate lack of knowledge on foreign markets, and subsequently moving to a stronger commitment, such as whole owned subsidiaries (Johanson & Vahlne, 2009; Olejnik & Swoboda, 2012). Born globals internationalization happens within three years of the firm's inception with a high share of foreign sales, more than 25 percent, out of the total turnover. With the so-called born-again globals the internationalization occurs later as a result of a radical change, for example in the firm's ownership or management. Time is the key factor that separates the born globals and born-again globals from the traditional internationalization process. (Olejnik & Swoboda, 2012; Kuivalainen, Saarenketo & Puumalainen, 2012.)

Olejnik and Swoboda (2012) argue that growth orientation and international orientation, which refers here to the manager's positive attitudes toward exporting, international activities, and international experience, influence the internationalization pattern of SMEs. SMEs that are aiming for higher growth are more likely to follow the born global internationalization pattern or born-

again global instead of the traditional internationalization pattern (Olejnik & Swoboda, 2012).

Skudiene et al. (2015) point out several antecedents to internationalization: information availability about the markets and usage to transfer information to gain competitive advantage, international mindset, which refers to positive attitude toward internationalization process, international business networks, and communication interactivity. Also, Johanson and Vahlne (2009) emphasize the importance of establishing relationships in relevant networks in order to avoid the liability of outsidership. Therefore, building of trust and commitment are essential factors in the process of internationalization (Johanson & Vahlne, 2009). Furthermore, Cerrato et al. (2016) introduce six dimensions of firm internationalization: assets/resources, people/attitudes, capital, geography, relationships, and revenues. Resources and assets indicate the structural attributes of internationalization, such as the resources located abroad, and the foreign employees to the total employment. The dimension of people and attitudes refers to the international orientation. Capital denotes financial internationalization, which can be measured by foreign owners and foreign debts. Geography refers to the geographical scope, which can be operationalized for example by number of countries. Relationships dimension includes the internationalization of the business network and the range of opportunities a firm can access. Revenues dimension refers to the internationalization from the demand side, which can be measured by the ration of foreign sales. (Cerrato et al., 2016.)

The degree of internationalization of the firm can be described as a snapshot of the firm's situation in terms of number of foreign markets, foreign partners and share of foreign sales out of the total turnover (Kuivalainen, Puumalainen, Sintonen & Kyläheiko, 2010). Moreover, the degree of internationalization includes an attitudinal element, which refers to the top management's international orientation (Cerrato et al., 2016).

Cerrato et al. (2016) introduce four internationalization archetypes, marketer, investor, networker, and weak internationalizer, which describe the different ways firms internationalize. Firms belonging to marketers show a high-level degree of internationalization in terms of foreign sales and geographical scope. Investor archetype is similar to the previous archetype, although international activities are not limited to sales and marketing. Networker firms focus on network resources, having perhaps foreign sales lower than the two other archetypes, but geographical scope and international orientation are at similar level. Weak internationalizer firms have lower level of internationalization in several regards and internationalization is not considered the primary goal. Moreover, internationalization can also be limited in terms of business networks. The archetype of weak internationalizer is unlikely to be an intentional choice but as a consequence of lack of resources and capabilities. (Cerrato et al., 2016.)

Cerrato et al. (2016) argue that the focus should be on how internationalization archetypes and the environmental as well as firm-specific characteristics are matching together. Moreover, SMEs need to differentiate themselves from



the local competitors by, for instance, targeting a niche market and proving high-quality products (Schmitt & Baldegger, 2020). Another way to enter new markets is to collaborate with local distributors that already have connections to larger networks (Hervé, Schmitt & Baldegger, 2020b). Some of the most important factors today are online reputation and service quality (Wittkop, Zulauf & Wagner, 2018).

Digital competition can easily cross borders, which leads to increase in globalization of markets (Verhoef & Bijmolt, 2019). Skudiene et al. (2015) argue that traditional internationalization theories are not able to explain the internationalization patterns, which have emerged as a result of the digital technologies. Digital technologies provide new opportunities for SMEs to succeed in internationalization.

### 2.3 Digitalization and digital technologies

Although sometimes used interchangeably, digitization and digitalization describe different phenomena. Digitalization is defined as manifold sociotechnical phenomenon and the processes of adopting and using digital technologies to improve or disrupt business models, business processes, and products and services (Legner et al., 2017; Denner et al., 2018). Digitizing can be described as a process of converting analog signals of information into digital representation (Tilson, Lyytinen & Sørensen, 2010). Digitization makes digital technologies generic purpose technologies, as they can be applied in individual, organizational, and societal context (Autio, 2017). The process of digital transformation has been examined in the literature focusing on business organizations in terms of assessment of adoption, diffusion, and deployment of digital technologies (Cassetta, Monarca, Dileo, De Berardino & Pini, 2020).

The emergence of digital technologies started in the early 2000s with the Web 2.0 technologies, followed by the introduction of iPhone and Android mobile operating systems, web storage solutions, cloud computing, learning algorithms, and big data technologies (Autio, 2017). The so-called SMAC technologies (social, mobile, analytics, and cloud computing) combined with ever-increasing processing power, storage capacity, and communication bandwidth, have enabled ubiquitous access to powerful information processing regardless of place and time (Legner et al., 2017).

The elements of digital technologies can be divided into digital artifacts, digital platforms, and digital infrastructures. Digital artifacts can be stand-alone software/hardware components on physical devices or offerings on digital platforms. Digital platforms are a shared, common set of architecture and services that facilitate interactions. Digital infrastructure refers to digital technology tools and systems that provide collaboration, information sharing and networking capabilities. (Nambisan, 2017.) Pergelova, Manolova, Simeonova-Ganeva and Yordanova (2019) introduce front-end digital infrastructures, such as website and online orders and payment, and back-end information manage-

ment systems, such as customer relationship management (CRM), supply chain management (SCM), and enterprise resource planning (ERP). Both are important to marketing intelligence and value creation (Pergelova et al., 2019). Digital technologies are divided here into e-business digital technologies (back-end), such as cloud computing and software applications, which enable information sharing with the suppliers, customers, and business partners, and e-commerce digital technologies (front-end), such as website and social media, enabling transactions as well as marketing activities (Cassetta et al., 2020).

Digital technologies are not limited to a specific group of companies, they can be used to extend, enhance, and enrich internal activity systems, customer interactions, digitalization of products and services, digitalization of marketing, and internationalization in any SME (Autio, 2017). However, it is important to consider the expected benefits of digital technologies before adopting them, as it will positively influence the adoption. (García-Moreno, García-Moreno, Nájera-Sánchez & De Pables-Heredero, 2016.) Moreover, the choice and the use of technologies should be approached from the perspective of context of practice rather than in isolation. Development of models that focus on technology use considering multiple classes of technology may bring more positive outcomes. (Morgan-Thomas, 2016.) The figure 1 below outlines the digitalization opportunities and the possible digital technology options.

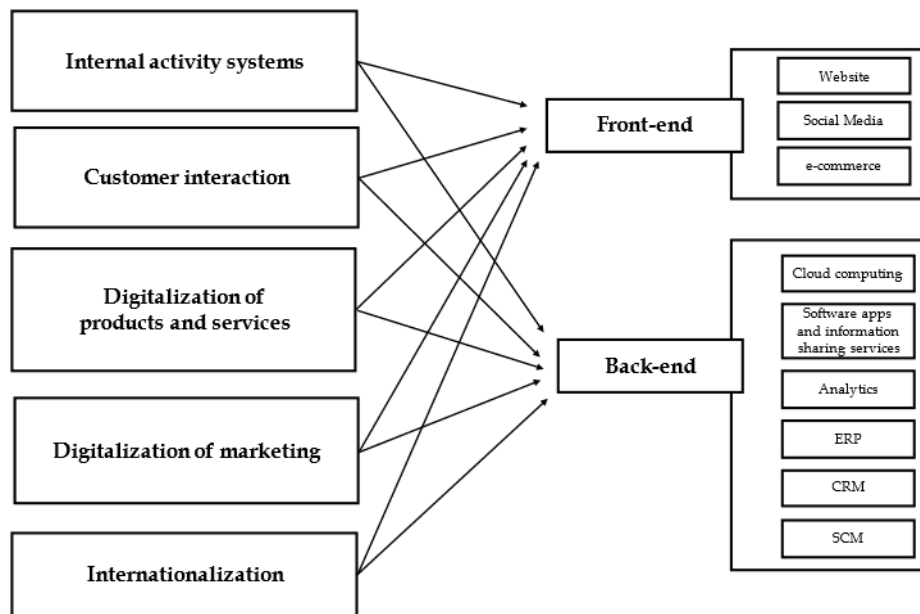


FIGURE 1 Actions to support digitalization (based on Autio, 2017; Pergelova et al., 2019)

Digital technologies help companies to grow, identify new markets, and create competitive advantage in a way of internal communication, communication with customers and partners, order taking, information sharing, coordination,

and responsiveness (Bi, Davidson & Smyrniotis, 2017). Kim, Lee and Lee (2011) introduce an interaction model covering networking, information sharing, and collaboration in areas of business-to-employee-to-employee, business-to-employee-to-consumer, and business-to-employee-to-business and propose enabling technologies for each area. In the area of business-to-employee-to-employee, networking can be done with the use of human resource management or employee relationship management, information sharing with knowledge dissemination, and collaboration with collaborative knowledge creation. In business-to-employee-to-customer, networking can be done using customer relationship management and public relations. For information sharing, market research, promotion, and a system to receive complaints can be utilized. Collaboration with customers can encourage product innovation. In business-to-employee-to-business, networking can be done using partner relationships management. For information sharing similar methods can be used as in the business-to-employee-to-customer area. Collaboration can include product innovation, application development, and supply chain management. Enabling technologies for networking include website and social networking sites, for information sharing podcasts, blogs, and social networking, and for collaboration wikis, open-source software, blogs, and social networking. (Kim et al., 2011.) The interaction model is shown in table 1. The different areas, i.e., employees, consumers, and business partners, provide the basis for the dimensions of the developed model. Moreover, enabling technologies help companies to determine selection of suitable technologies for networking, information sharing and collaboration in activity 4 (see table 7).

TABLE 1 Interaction model (adapted from Kim et al., 2011, p. 165)

<b>Area</b>	<b>Networking</b>	<b>Information Sharing</b>	<b>Collaboration</b>
Business-to- Employee-to- Employee	Human resource management Employee relationship management	Knowledge dissemination	Collaborative Knowledge creation
Business-to- Employee-to- Consumer	Customer relationship management Public relations	Market research Promotion Public relations	Production innovation Collaborative filtering
Business-to- Employee-to- Business	Partner relationship management	New product announcements	Product innovation Collaborative product development Application development Supply chain management

The use of digital technologies enables better connectivity with partners, suppliers, and customers (Cassetta et al., 2020). When the use of digital technologies advances, the focus shifts from individual technologies to how those technologies can be integrated (Zhu, Kraemer & Xu, 2006). System integration enables information sharing and transaction execution across the value chain (Barua, Konana, Whinston & Yin, 2004).

Small firms can see the benefits but may lack the needed resources, such as financial and technical resources, to implement new technologies. Moreover, younger firms may be more open to innovations and new technologies than older firms, however the lack of needed resources may prevent them from implementing new solutions. It is therefore identified that the firm size influences the adoption of digital technologies. The larger the firm, the availability of resources also increases. The adoption and diffusion of technology will also depend on the industry as well as the environmental factors, such as the nature of competition. For example, if the trading partners have implemented digital technology tools, the firm may feel the need to adjust its operating processes accordingly and adapt to the environment due to the threat of being isolated and the risk of losing competitive advantage. Digital technologies may require closer integration with the entire supply chain, which extends beyond a single organization (García-Moreno et al., 2016.) and may extend beyond the national borders. Moreover, digital technologies can be considered as complementary or an alternative way of entering international markets (Cassetta et al., 2020). Next, the digital internationalization is described in order to understand the benefits and factors when doing international business.

## **2.4 Digital internationalization**

Digitalization furthers the internationalization process of SMEs (Dethine et al., 2020). Internationalization through digitalization can offer reduced costs of operations, response time and reliance of physical documents, as well as improved productivity, product and service quality, information sharing, partnerships, competitiveness, and marketing (Westerlund, 2020). Distances between countries have been reduced due to digitalization. Moreover, digitalization has provided new opportunities in open innovation, skill sharing and partnership formation. Therefore, digitalization and internationalization have become collective activities. (Schmitt & Baldegger, 2020.) Cassetta et al. (2020) argue that in terms of export intentions, the effects of digital technologies depend on how e-commerce and e-business digital technologies are utilized and the ability of the organization to improve their internal digital skills. Rather than just adopting all types of digital technologies, companies should build their competitive advantage by discovering unique capabilities within digital technologies. Moreover, when the range of digital technologies increases, it is important to assess the connectedness between the alternatives and business types, industries, and

environments and consider the internal changes accordingly. (Cassetta et al., 2020.)

Hervé et al. (2020) identify four factors in terms of doing international business: (1) cost, accessibility, resources, and competences; (2) market knowledge (general and based on experience); (3) distance and location (psychological and physical); and (4) relational competences and partner networks (Hervé et al., 2020b) which play an important role with regard to the supportive questions of the developed model. Digital technologies are interaction technologies allowing SMEs to rethink the process of organizing value co-creating interactions (Autio, 2017). Hervé et al. (2020) describe the digitalization effects on internationalization activities and opportunities for new value propositions through digital use. In terms of cost, accessibility, resources and competences, the digitalization effects on internationalization activities can bring resource allocation in several markets, time-saving transactions, and optimization of decision-making processes. With regard to market knowledge, the digitalization effects include accessibility to large information databases, better analysis of market attractiveness, optimization of internationalization speed and market gain. When considering the digitalization effects from the distance and location perspective, borders are dematerialized and the access to new targeted markets is better. Digitalization increases a number of actors in markets and can create one large virtual market for international trade, increasing access to local knowledge and market partners. New value creation through digital use can generate a number of opportunities, such as partnerships with other companies, open innovation and co-creation with partners and customers, using customer feedback for improving services and products, better customer experience, collaborating with opinion leaders, and building and maintaining a strong online reputation. (Hervé et al., 2020b.)

In addition, internationalization through digitalization requires the consideration of Information and Communications Technology (ICT) resources, online presence, and matters related to cybersecurity. ICT resources include SMAC technologies, software, such as CRM, ERP, accounting, web-applications, as well as ICT expenditure, personnel, and training. Online presence includes the website and its features, such as ordering, booking and payment. Also, social media integration and mobile version, as well as third-party marketplace services can be essential. Cybersecurity breaches, such as theft, unauthorized access to information or reputation damage, require cybersecurity practices, such as email encryption, security patches, authentication solutions, and other security measures. (Westerlund, 2020.) Companies can increase the exporting activities and improve the customer and supplier relationships with the use of software applications enabling sharing of information along the supply chain (Cassetta et al., 2020).

The use of digital tools has been proven to have a positive effect on international expansion. However, despite the positive effects on digital technology usage, risks in internationalization, for instance, price pressure, aggressive global competitiveness, and cybercrime, exist. (Hervé et al., 2020b.) Therefore,

Westerlund (2020) suggests that in order to grow through digital internationalization, SMEs need to build a set of capabilities focusing on partnering, customer relationship, and business process management, as well as invest in ICT resources and cyber resilience. SMEs can improve their cyber resilience by keeping systems and applications up-to-date and installing available security patches (Westerlund, 2020). Moreover, Hervé, Schmitt and Baldegger (2020) believe that more secure tools are developed, which will protect companies from security issues. For example, companies can use blockchain technology to secure business transactions (Hervé et al., 2020a).

International SMEs are likely to have more partners and inter-organizational system integrations compared to domestic SMEs (Westerlund, 2020). Moreover, international SMEs tend to utilize information systems (e.g., CRM, ERP), focus on key internal resources and cybersecurity resolution, and expand their value networks more extensively than domestic SMEs (Westerlund, 2020). Also, Durmaz and Ilhan (2015) argue that CRM contributes to business growth. Digital technologies, such as CRM and ERP, facilitate connectivity with customers and suppliers and enable better tracking and management of relationships and business processes (Cassetta et al., 2020; Westerlund, 2020).

Due to business environment complexity driven by changing and increasing customer expectations, new technologies, and increasing global competition, organizations are experiencing rapid changes resulting in dynamic and continuously changing business processes of the organizations (Adesola & Baines, 2005). Moreover, growth by entering new markets requires appropriate business processes (Kirchmer, 2015).

## 2.5 Business Process

Business process as a definition is multifaceted, and even the word process may need clarification in this context. Hammer (2015) defines process as individual work activities that are combined into a larger context of activities, which together create results. Processes can be divided into core processes, which create value for external customers and are thus essential for the organization, enabling (also called supporting) processes, which create value for internal customers, and governing processes, which manage the core and enabling processes. (Hammer, 2015.)

According to Sharp and McDermott (2008), a business process is a collection of interconnected activities, initiated by a triggering event, to achieve a particular result for the customers. The customer can be a person or an organization, internal to the organization, such as an employee, or external to the organization. The purpose of a business process is to provide an individually identifiable and countable result. A business process includes people, resources, systems, and work, which the process coordinates. Business processes bring structure and coordination. Also, the goals and objectives of the process need to match with the goals and objectives of the organization, and they need to be

aligned (Sharp & McDermott, 2008). The ingredients of a business process according to Dumas, La Rosa, Mendling and Reijers (2013) consist of event, activity, decision point, actor, object, customer, and positive or negative outcome. Business process consists of zero, one or many events that are elements that have no duration. Business process can have one to many activities, which are a set of multiple tasks to be done to achieve a target. There can be zero, one or many decision points, which are points in time when a decision is taken regarding how to execute the process. Business process involves zero, one or many objects that can be physical, such as equipment, material, documents, and immaterial, such as electronic documents. Business process also involves zero, one or many actors that can be human actors, organizations, or software. Business process delivers outcomes that can be either positive, giving value to one or many customers, or negative, in which case the value creation is not achieved. (Dumas et al., 2013.)

Melão and Pidd (2000) organize business processes into four complementary, yet competing, categories:

- The first perspective, business processes as deterministic machines, views business processes as a sequence of well-defined activities (structure) performed by “human machines” (procedures) to achieve a certain objective (goals) by making inputs into outputs. The key in this view is efficiency in the use of resources. Information technology has an important part in terms of automation, coordination and supporting the re-engineering process.
- The second perspective, business processes as complex dynamic systems, views business processes as a whole, internal subsystems, such as people, tasks, technology, that interact with each other and with the external environment to achieve objectives.
- The third perspective, business processes as interacting feedback loops, emphasizes interactions between internal structure and information feedback. In this view business processes are described as flows of resources, which are regulated by decisions, going through a sequence of levels from inputs to outputs. The information feedback is a key element as it determines the actions to be taken in the process.
- The fourth perspective, business processes as social constructs, sees that business processes consist of people with different values, expectations, and different types of agendas, and that the processes are created by meanings and judgements that people make subjectively, and not in a concrete way. (Melão & Pidd, 2000.)

For the purpose of understanding and communicating business processes' structure, static approaches are applicable (Melão and Pidd, 2000). However, it is important to remember that the environment where the process operates and the process itself are dynamic elements and the change in either one of them

will affect the other (Lindsay et al., 2003). Melão and Pidd (2000) argue that business processes have “technical and social, tangible and intangible, subjective and objective, quantitative and qualitative dimensions”. Thus, there is no definition that would give a unanimous definition for a business process.

There are different viewpoints regarding thinking about processes and activities, including workflow, decision making, communication, coordination, control, and information processing, to mention a few. The concepts and generalizations are dependent on the viewpoint. (Alter, 2008.) All processes require management, and thus benefit from process management (Hammer, 2015).

## 2.6 Business Process Management

Business Process Management (BPM) is an extensive integrated system for managing and changing business operations by managing cross functional business processes (Hammer, 2015). Van der Aalst, ter Hofstede and Weske (2003) define BPM as “supporting business processes using methods, techniques, and software to design, enact, control, and analyze operational processes involving humans, organizations, applications, documents and other sources of information”. BPM aims to better understand how the business operates in order to improve the business efficiency and to identify how technology can be used to support business processes (Lindsay et al., 2003). BPM can also foster process innovation and creativity (Fischer, Imgrun, Janiesch & Winkelmann, 2020). All activities that in some way optimize or adapt processes in an organization are part of BPM (Scheer & Hoffmann, 2015). The main idea of BPM is to concentrate on the processes when coordinating work in an organization (Dumas et al., 2013).

BPM derives from the characteristic that it shares with continuous improvement philosophy of total quality management (TQM), the principles and techniques of operations management, Lean and Six Sigma, and combines them with capabilities which digital technologies offer, in order to achieve the objectives of an organization (Dumas et al., 2013).

There are significant aspects contributing to the success of BPM. Vom Brocke et al. (2014) propose ten principles of good business process management for the purpose of enhancing a common understanding of BPM:

1. The first principle, the principle of context-awareness, draws attention to the fact that BPM should suit to the organizational context, and that the organization’s size, strategy, industry, and objectives of BPM are some of the factors that separate organizations from each other and create the organizational setting that is to be considered when managing business processes.
2. The principle of continuity emphasizes that BPM should be a permanent practice and not just a one-time thing.



3. The principle of enablement stresses that BPM should develop capabilities.
4. The principle of holism points out that BPM should not focus solely on specific areas of an organization but have a holistic approach.
5. The principle of institutionalization states that BPM should be part of the structure of an organization.
6. The principle of involvement highlights that everyone who is part of the BPM should be involved and participate, which in turn will prevent resistance.
7. The principle of joint understanding stresses the fact that BPM should be communicated through simple process modeling so that everyone involved can create shared meaning.
8. The principle of purpose emphasizes that BPM should be seen as a management method for strategic value creation and should not be done just for the sake of doing it.
9. The principle of simplicity suggests that BPM should be economical. It is important to consider how much resources are used for which processes and how the inputs and outputs are balanced in order to have efficient and effective organizational processes.
10. The tenth principle, the principle of technology appropriation, stresses that BPM should make appropriate use of technology. As there are innumerable IT solutions available for improving the efficiency and effectiveness of business processes, it is important to select, adopt and exploit the suitable IT solutions as part of the inherent BPM, which can be seen to best support the organization. Ignoring the IT management when introducing IT solutions within an organization may damage the continuity, the growth, and the transformation capacity of the entire organization. (vom Brocke et al., 2014.)

Trkman (2010) states that BPM can be seen successful if it reaches pre-established goals on a continuous basis. He further argues that unsuccessfulness of BPM projects derives from the lack of linkages between the suitability between business environment and business processes (contingency theory), continuous improvement efforts (dynamic capabilities theory) and the suitability between the activities in the business process and information technology/system (task-technology fit) (Trkman, 2010).

According to contingency theory there is no one best way to organize, in other words, simply copying a successful business process from somewhere will not automatically bring similar results in another case. Therefore, each organization should explore their contingencies and align their business processes accordingly, which will in turn form a dynamic capability. (Trkman, 2010.) The critical success factors related to contingency theory are strategic alignment and performance measurement (Skrinjar & Trkman, 2013).

Dynamic capabilities theory emphasizes the fact that BPM is not a one-time thing but a continuous exploration on how to improve the business processes by adjusting the existing resources with the changing business environ-

ment in order to sustain the competitive advantage. Continuous improvement requires appropriate information and suitable fit between business processes and technology. (Trkman, 2010.) The critical success factors related to dynamic capabilities theory are organizational change and appointment of process owners (Skrinjar & Trkman, 2013).

Majority of business processes are at least to some degree supported by digital technologies. Systems, such as ERP, CRM, and similar systems, are in use in one way or another in most of the organizations. The systems can be standard application packages, such as ERP and CRM, which are based on best or common practices and reflect the vendor's business knowledge on certain industries and other customers in the industry. When purchasing a traditional system, such as ERP, the predefined configurable business process is included, in addition to the technology. In other words, the system has the process coded in the software, and modifications to the software can be costly. Alternatively, software-as-a-service (SaaS) or cloud-computing can be used to bring more flexibility since the procurement of needed functionalities can be quick and focused and consequently can lead to reduction of IT related costs. The IT support can either promote or impede innovation and agility. (Kirchmer, 2015.)

Task-technology fit related critical success factors include information, automation, employee training and empowerment. Success does not automatically derive from the technology alone; employees need to also know how to use it. Therefore, training to understand the potential of technology is equally important. Besides knowing their own tasks, all employees should understand their role in the process. (Skrinjar & Trkman, 2013.) Moreover, understanding the complementary elements needed for BPM successful and sustainable deployment are also important (Rosemann & vom Brocke, 2015).

### **2.6.1 Business Process Management core elements**

There are many elements to consider in BPM. The core elements of BPM frequently cited in the extant literature consist of six dimensions: strategic alignment, governance, methods, IT, people, and culture (Rosemann & vom Brocke, 2015).

Strategic alignment consists of process improvement planning, linking strategy and process capability, enterprise process architecture, process measures, and evaluation of the priorities of customers and stakeholders. Governance consists of process management decision making, process roles and responsibilities, process metrics and performance linkages, process related standards and process management compliance. Methods are a series of tools and techniques for supporting and enabling activities. IT-based solutions are crucial for BPM. Process-aware information systems (PAIS) are closely related to IT solutions in BPM. Process-awareness signifies that the software understands the process. Methods and IT include process design and modeling, process implementation and execution, process monitoring and control, process improvement and innovation, process program and project management. Peo-

ple refers to individuals and groups who use their process skills to improve business performance. People dimension consists of process skills and expertise, process management knowledge, process education, process collaboration and process management leaders. Culture consists of collective values of groups. Culture dimension includes responsiveness to process change, process values and beliefs, and process attitudes and behaviors, leadership attention to process and process management. (Rosemann & vom Brocke, 2015.)

According to Fischer et al. (2020), a successful BPM deployment requires a process-oriented environment where communication and collaboration are encouraged. The deployment of BPM occurs when an organization begins to utilize methods, tools, and techniques in order to control their business processes and to capture the benefits, such as process transparency and standardization of processes, through a better understanding of their processes (Malinova & Mendling, 2018). The BPM consists of a continuous cycle of phases, which are described next.

### **2.6.2 Business Process Management life cycle**

According to Dumas et al. (2013), BPM includes six phases: process identification, discovery, analysis, redesign, implementation, and monitoring and controlling phases. Each phase and the expected outcome of the phase is described as follows:

- Process identification is the phase in which the business problem is identified and delimited. The outcome of this phase is an updated or new version of the process architecture, which provides a general view of the process and its relationship with other processes.
- Process discovery phase focuses on the as-is process models and their documentation. The outcome of this phase is the as-is process model.
- Process analysis is used together with performance measurement to identify current issues in the process, which are listed and prioritized in terms of effects and based on estimated effort needed to resolve them. In this phase the outcome is a prioritized collection of issues.
- Process redesign (also called process improvement) phase aims at identifying the changes that can resolve the issues recognized in the previous phase. Different change options are analyzed and checked against the performance measures in order to discover the best solution. Thus, the process analysis phase is very closely linked with the process improvement phase. Moreover, improvement as a term can have different meaning depending on what the organization wants to achieve. The outcome of this phase is a to-be process model.
- Process implementation is the phase in which the needed changes are moved from the as-is process to the to-be process. Process implementation consists of two parts: change management and process automation. Change management deals with activities and participants that are relat-

ed to the transition process. Process automation refers to the development and deployment of IT systems, which support the to-be process. In this phase the outcome is an executable process model.

- Process monitoring and controlling aims at analyzing the collected data to determine how well the process performs based on the performance measures and set objectives. Process monitoring and controlling can reveal new issues requiring attention, and the life cycle is triggered again. The outcome of this phase is conformance and performance insights. (Dumas et al., 2013.)

The figure below (figure 2) links the BPM life cycle with the core elements of BPM and presents the necessary infrastructure for BPM implementation, such as tools used for process and guideline modeling. The relation exists between BPM core elements and the BPM infrastructure, which means that the core elements need to be in place prior to the infrastructure set-up. Subsequently, the infrastructure is to be set before the BPM is operationalized. Moreover, methods and IT are present in the phases of BPM life cycle. (Malinova & Mendling, 2018.)

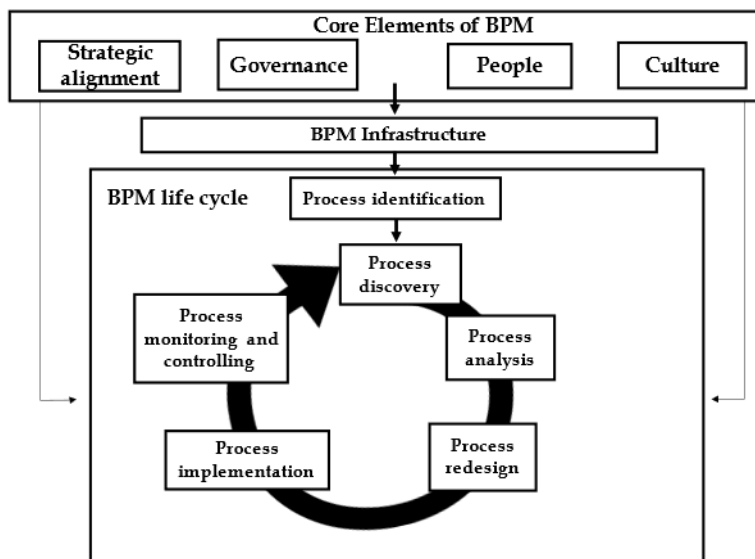


FIGURE 2 Integrated BPM life cycle (adapted from Malinova & Mendling, 2018, p. 887)

Early adoptions of BPM were mainly focused on process identification and documentation, when later focus moved to process monitoring and controlling. In the world of digital transformation, it seems that the focus has changed again. (Gabryelczyk, Biernikowicz & Sipiior, 2020.) In light of the changing environment, it is essential to understand the importance of the ability to react rapidly to the changes, shift focus from exploitative to explorative BPM while taking

the context factors into consideration. Agile and ambidextrous BPM are described after the role of context in BPM has been covered.

### 2.6.3 Role of Context in Business Process Management

Most of the BPM approaches, methods and models focus on clear-cut, structured processes requiring improvement, standardization, or automation, in order to increase the efficiency and effectiveness of business processes. Application of BPM in other types of business processes leads to new requirements. Moreover, it is questionable to consider the suitability of a single BPM model in all cases. (vom Brocke, Zelt & Schmiedel, 2016.) Therefore, the role of context should be taken into account. Context is defined as the relevance of information to a particular entity or group in a particular situation (Kröschel, 2010). Previous research has mainly focused on context from the external perspective. However, the contextual BPM requires to consider not only the environmental and external factors but also organizational and internal factors. (vom Brocke et al., 2016.)

The contextual BPM introduced by vom Brocke et al. (2016) includes four dimensions: a goal of BPM, characteristics of the process, an organization dimension to describe the specifics of the organization, and an environmental dimension to characterize the business environment. The goal dimension determines the implementation of BPM and the choice of tools and techniques to use (vom Brocke et al., 2016). Exploitation refers to the improvement and compliance aspects in which known tools, techniques, and approaches of BPM are utilized, whereas exploration relates to innovation processes utilizing creative techniques and communication (Rosemann, 2014). The contextual factors related to processes, such as value contribution (core process, management process or support process) and the interdependence of process participants, present the diversity of organizational processes and that BPM approaches need to be considered based on the type of process in question. The contextual factors related to organizational factors reflect whether the organization operates in product, service, or product and service industry, size of the organization, number of organizational resources, and scope. The scope of BPM can refer to intra-organizational process or inter-organizational process. The environmental context refers to the competitiveness and environmental uncertainty factors. (vom Brocke et al., 2016.)

The table below (table 2) delineates the framework of the contextual BPM and provides examples of possible options for each dimension that are considered in the model development.

TABLE 2 Framework of contextual BPM (adapted from vom Brocke et al., 2016, p. 490)

<b>Contextual factors</b>	<b>Examples of possible options:</b>				
<b>Goal dimension</b>					
Focus	Exploitation (Improvement, Compliance)	OR	Exploration (Innovation)		
<b>Process dimension</b>					
Value contribution	Core process	OR	Management process	OR	Support process
Interdependence	Low	OR	Medium	OR	High
<b>Organization dimension</b>					
Scope	Intra- organizational process	OR	Inter-organizational process		
Industry	Product	OR	Service	OR	Product & Service
Size	Start-up	OR	Small and medium	OR	Large organization
Resources	Low	OR	Medium	OR	High
<b>Environment dimension</b>					
Competitiveness	Low	OR	Medium	OR	High
Uncertainty	Low	OR	Medium	OR	High

Vom Brocke et al. (2016) state that the context factors should be examined early in the BPM project as it influences the selected management practices. Therefore, the developed maturity model includes the context factors as the starting point in order to have sufficient information about the current state from the internationalization perspective, such as the resources, industry, and scope, to select the appropriate management practices. However, context changes over time, such as changes in resources or in the competitive environment, which requires that BPM be continuously adapted to the existing contextual factors. Moreover, the relevance of context may depend on the maturity level, and thus, evaluation of the relevance of context in different maturity stages can be useful. (vom Brocke et al., 2016.)

Although there is a common understanding that flexibility or adaptive business processes are needed, there is no consensus on how to achieve flexibility in accordance with the internal and external environment. Instead of changing everything, it is important to be aware of what needs to be changed while keeping the rest of the parts stable. (Kröschel, 2010.) The ambidextrous organization is able to manage the current processes while continuously adapting the organization to the changing environment (Rosemann, 2014). As business processes interact with the internal and external environments, a great amount of collaboration, context and flexibility are essential (Kröschel, 2010).

### 2.6.4 Agile and Ambidextrous Business Process Management

In order to enhance competitiveness, organizations need to find ways to be more responsive, collaborative, and agile (Liu et al., 2020). Business process management is agile when it can react with speed to emerging needs, threats, and opportunities (Bruno et al., 2011).

Sambamurthy, Bharadwaj and Grover (2003) identify three types of agility: customer agility, partnership agility, and operational agility, in which operational agility refers to the ability to swiftly reconfigure, redesign, and realign existing processes. According to Bruno et al. (2011) agile BPM requires making changes to the paradigm of BPM life cycle, as the traditional BPM life cycle approach is based on tayloristic thinking and a top-down flow of information. Imgrund and Janiesch (2020) propose BPM that is run on a networked structure of local resources in order to enable adaptive and asynchronous process improvements.

Bruno et al. (2011) propose three requirements for agile BPM life cycle: organizational integration, semantic integration, and responsiveness. Organizational integration refers to considering all stakeholders' requirements to the BPM life cycle. Semantic integration implies creating a common understanding of the terms used in BPM among all stakeholders. Responsiveness describes the capabilities of the BPM life cycle to adapt its structure in accordance with the internal and external events. (Bruno et al., 2011.)

Digital phenomenon requires rethinking of the assumptions about management frameworks (Baiyere, Salmela & Tapanainen, 2020). Agile BPM requires a culture of involvement and attitude, which appreciate personal responsibility and autonomy (Imgrund & Janiesch, 2020). Baiyere et al. (2020) propose three BPM logics in the context of digital transformation, which are process logic, infrastructure logic, and agential logic. The traditional BPM approach, requiring rigorous modeling of business processes, is replaced with light touch. The assumption behind process logic is the fact that the dynamic environment causes changes which in return require continuous need for modifying business processes. Therefore, the practices needed are easily modifiable processes and conditions where processes are not rigidly controlled. Aligning infrastructures to sync with the business process objectives is replaced with flexible infrastructure. When the infrastructure is flexible, it is easier to respond to emerging business process needs and adapt to continuous change. The procedural actors following the modeled processes are replaced with mindful actors who can function effectively without defined process models. Adaptiveness, experimentation, and ambidexterity are the underlying values caused by digital transformation. (Baiyere et al., 2020.)

The table 3 presents the comparison of the regular BPM logic with the digital transformation BPM logic, including the underlying values and drivers, which are used as the basic idea behind the design of the developed model framework. In other words, the processes are easy to adapt and responsive to emergent business process needs while the actors are involved throughout the

process and thus can effectively decide appropriate actions in different situations.

TABLE 3 Overview of BPM logics in regular versus digital transformation contexts (adapted from Baiyere et al., 2020, p. 253)

<b>Dominant BPM logic</b>	<b>Digital transformation BPM logic</b>	<b>Underlying values/drivers</b>
<i>Modeling</i>	Process logic <i>Light touch processes</i>	Adaptiveness Experimentation Ambidexterity
<i>Infrastructural alignment</i>	Infrastructure logic <i>Infrastructural flexibility</i>	
<i>Procedural actors</i>	Agential logic <i>Mindful actors</i>	

An ambidextrous approach to BPM integrates exploitative and explorative capabilities simultaneously utilizing available knowledge, resources, and capabilities to overcome identified problems in a certain business process and incrementally improving the process while assessing new opportunities in order to innovate organization's business processes. (Kohlborn, Mueller, Poeppelbuss & Roeglinger, 2014). The exploitative BPM has an 'inside-out' approach focusing on process improvement and execution, from process problem to resolution, which can be appropriate for predictable and efficient processes. On the other hand, organizations aiming for innovation require the opposite approach, an 'outside-in' approach, focusing on environmental scanning in order to discover technological options, such as mobile technology and internet of things, and strategic options, such as design thinking, and assessing their applicability in their organizational context. Moreover, BPM is very much internal business process focused, concentrating on processes such as procurement, manufacturing, and sales. Organizations should also consider the factors triggering the customer process and work on their business processes from the customers' perspective. Customer Process Management is strongly aligned with outside-in focus on BPM. Based on this view, the process starts before the customer even contacts the organization. (Rosemann, 2014; Kohlborn et al., 2014.)

Managing and improving organizational capabilities can seem difficult and time consuming for many organizations, however, it is essential. One way to assess and improve organizational capabilities is by using maturity models. (Maier, Moultrie & Clarkson, 2012.)



## 2.7 Maturity Models

The fundamental purpose of maturity models is to describe the path through different stages of growth levels of organizations or processes (Pöppelbuß & Röglinger, 2011; Becker et al., 2009). Maturity is defined as “the state of being complete, perfect, or ready” and “fullness or perfection of growth or development” (Oxford University Press, 2004). Maturity models are described as stages-of-growth models, stage models, or stage theories (Prananto et al. 2003). Maturity models can be used for descriptive purposes, to evaluate the as-is maturity level, or for prescriptive purposes, to identify the desired maturity level. Maturity models can be also used for comparative purposes, for internal or external benchmarking. (Röglinger, Pöppelbuß & Becker, 2012.)

Academics and practitioners have developed a number of maturity models for many domains in order to measure, among others, the maturity of IT service capability, business-IT alignment, project management, and knowledge management (de Bruin, Freeze, Kulkarni & Rosemann, 2005). Reviews of existing maturity models have been covered in multiple papers. Maier et al. (2012) reviewed 24 existing maturity models providing detailed descriptions including the scope, items in the model and maturity levels, and none of them mentioned internationalization. Moreover, Virkkala et al. (2020) conducted a systematic literature review to obtain an overview of maturity models focusing on SMEs. Many of the 20 maturity models for SMEs covered in the article had digital focus and multiple models had supply chain aspect, however none had internationalization focus.

The majority of maturity models derive from the Capability Maturity Model (CMM) developed by the Software Engineering Institute at Carnegie Mellon University, which was used for assessing the maturity of software development processes, established by the maturity of the software organization (Rosemann & vom Brocke, 2015). CMM has five maturity levels, which are from the lowest to the highest, initial, defined, repeatable, managed, and optimized processes (Rosemann & de Bruin, 2005). The lower level implies that the organization has little capabilities in a specific domain and the highest level represents the total maturity. Progressing toward higher levels requires that the organization continuously develops its capabilities and process performance (Becker et al., 2009.) However, the organization does not necessarily need to aim for the highest level, instead it should aim for the level that suits best for the organization’s goals and objectives (Rosemann, de Bruin & Hueffner, 2004). Different maturity models use different maturity levels (rating scale) (Maier et al., 2012). For example, Hammer’s (2007) Process and Enterprise Maturity Model (PEMM) expresses the maturity levels with P as process from P1-P4 and with E as enterprise from E1-E4. Furthermore, different maturity models have different types of dimensions. Various examples of some of the most referenced maturity models are described in table 4.

TABLE 4 Selection of examples of maturity models

<b>Maturity model</b>	<b>Process area</b>	<b>Maturity levels</b>	<b>Reference</b>
Capability Maturity Model (CMM)	Six core elements: Strategic alignment, Governance, Methods, Information Technology, People, and Culture	Level 1: Initial Level 2: Defined Level 3: Repeatable Level 4: Managed Level 5: Optimized	the Software Engineering Institute (SEI)
IT Performance Measurement Maturity Model (ITPM)	Three dimensions: Contents with (Awareness and Communication, Time Horizon and Purpose, Goal Setting, Coverage, Conception), Organization with (Cost-Benefit Analysis, IT Value Perception, Skills and Expertise, Responsibility and Accountability, and Policies, Standards and Procedures), and Technology with (Standardization of Components, Data Historization, Degree of Data Integration, Automation and Timeliness, and Provision of Information and Functional Range)	Level 0: Non-existent Level 1: Initial Level 2: Defined Level 3: Repeatable Level 4: Managed Level 5: Optimized	Becker, Knackstedt & Pöppelbuß, 2009
Process and Enterprise Maturity Model (PEMM)	Five process enablers: Design with (Purpose, Context, Documentation), Performers with (Knowledge, Skills, Behavior), Owner with (Identity, Activities, Authority), Infrastructure with (Information Systems, Human Resource Systems), and Metrics with (Definition, Uses)  Four enterprise capabilities: Leadership with (Awareness, Alignment, Behavior, Style), Culture with (Teamwork, Customer Focus, Responsibility, Attitude Toward Change), Expertise with (People, Methodology), and Governance with (Process Model, Accountability, Integration)	P1/E1 P2/E2 P3/E3 P4/E4	Hammer, 2007

Maturity models can be considered as artifacts that are built in order to solve the problem of identifying an organization's current situation and its capabilities and determining the desired state (Becker et al., 2009). Spanyi (2015) identifies two issues with maturity models, first, they are complex, covering everything possible, and seem difficult to put into practice, and second, the link between the model and operational performance is not strong enough. Therefore, the benefits of applying maturity models have been perceived difficult to justify to leaders (Spanyi, 2015). Moreover, Lasrado, Vatrappu and Andersen (2015) state that there are relatively few empirically validated maturity models. However, maturity models can be the solution to pinpoint areas of low current maturity and high priority and help finding ways for better performance.

## 2.8 Summary of the literature review

Development of a model to support the internationalization process requires both content and structure, which are derived from the factors discovered to promote growth-oriented SMEs in their digital internationalization process. This study explores organizational growth, the internationalization process, digital technologies, and digital internationalization to form the content for the model as well as ambidextrous BPM and maturity model to provide the structure.

Organizational growth occurs through sequential phases, having different priorities, challenges, and opportunities during the growth process. The factors of growth consist of growth orientation, growth ability and growth opportunity, which are enabled by the organization itself, the team, the customers, technology, networks, the environment, and markets. Growth can be achieved by internal growth, through new employment, sales from new customers, sales from improved products and services, sales from new products, and sales from new markets, or growth can be achieved by external growth through mergers and acquisitions. Growth management guides growth, taking into consideration different aspects contributing to growth and results in persistence of growth. The factors of growth provide the foundation for the model content as it is necessary to assess internal, such as employees, service/product, and technology, as well as external, such as customers, networks and environment, factors of growth throughout the growth process.

The internationalization process of SMEs can be gradual and incremental or occur fast shortly after the inception of the firm. SMEs aiming for higher growth tend to favor internationalization at a faster pace. The team's growth orientation as well as international orientation play an important role in the process of internationalization. Moreover, information availability about the markets, partner networks, capital, communication interactivity, ICT resources and skills, customer relationships, online presence and cybersecurity resilience are some of the perceived factors to influence the internationalization process. Moreover, the focus of international activities can also influence actions to be taken during the internationalization process. The focus can be on increasing the foreign sales and geographical scope through sales and marketing or building network resources. Despite the approach, it is important to differentiate from local competitors, have a strong online presence and excellent service quality.

Digitalization and digital technologies have changed the way international business is done. Digital technologies can be divided into digital artifacts, digital platforms, and digital infrastructures. Digital infrastructures, which can be divided into front-end and back-end, are defined as tools and systems that facilitate collaboration, information sharing and networking capabilities. Both types of digital infrastructures are vital for interaction, attaining growth through internationalization and value creation. With the use of digital technologies better

connectivity is ensured between employees, customers, business partners, and suppliers. However, it is essential to consider the value of technology based on the expected benefits rather than using technology just for the sake of using it.

Internationalization through digitalization can be faster, cost effective, provide better service quality, and means for better interaction with stakeholders. In conclusion, digital technologies have been proven to have a positive impact in international business despite the risks of cybercrime, aggressive global competition, and price pressure. Above all, it is important to be aware of the risks and build on the capabilities of partnering, customer relationship, as well as invest in ICT resources and cyber resilience, and business process management.

The definition of a business process has many perspectives. It is important to consider the resources and interrelated activities supported by technology, which are carried out based on information feedback, and which will bring individually identifiable and countable results for customers. The external environment is affecting the processes and the processes are affecting the external environment.

The idea of BPM is to focus on processes using appropriate methods, techniques, and software when coordinating business operations. The practices are determined based on principles and best practices. The traditional view of BPM derives from the idea of continuous improvement, automation, and standardization of clear-cut processes. On the other hand, other types of business processes require new ways of thinking. The idea that one-size-fits-all does not exist due to the fact that BPM is organization-specific, the BPM success requires that the BPM suits the organizational setting and the organization's objectives. Contextual BPM approaches BPM with a goal (e.g., exploration or exploitation), process (e.g., value contribution and interdependence), organization (e.g., scope and industry), and environment (e.g., competitiveness and uncertainty) perspectives. Context changes as the time passes, which requires constant adaptation to the new contextual factors. Furthermore, the relevance of context can depend on the maturity level of the organization. BPM should be considered as a continuing practice, which requires constant evaluation of how to improve business processes and how to utilize existing resources while exploring the possibilities of new technology to better suit for the future needs.

Today's organizations are required to simultaneously manage current processes and adapt to changing environment and customer needs. Agile BPM ensures that the organization can react fast to emerging issues and opportunities. Agile BPM transforms the traditional BPM life cycle into collaborative activities, in which all stakeholders are taken into consideration, and common understanding and responsiveness are present. Moreover, the rigorous modeled business processes are replaced with modifiable processes, while infrastructure alignment is replaced with flexibility, and procedural actors are replaced with mindful actors, able to react and respond swiftly without defined plans to engage with issues and opportunities. The relation exists between BPM context factors and the core elements and between the core elements and the

BPM infrastructure, which means that the core elements need to be in place and context identified prior to the infrastructure set-up. The continuous cycle of phases is described in BPM life cycle, which consists of process identification, discovery, analysis, redesign, implementation, and monitoring and controlling phases.

The extended BPM framework is presented in figure 3, which is used as the foundation for the managing growth through internationalization model framework (see table 5). The phases of process identification and discovery utilize the maturity assessment to identify the current and desired states of areas affecting internationalization. When the current state and desired state are defined, the performance measures are set, and activities prioritized. Process redesign defines the related processes and actors. Process implementation focuses on assessment of technology options and selection of suitable technologies. Process monitoring and controlling analyzes the process and lists down new issues and opportunities.

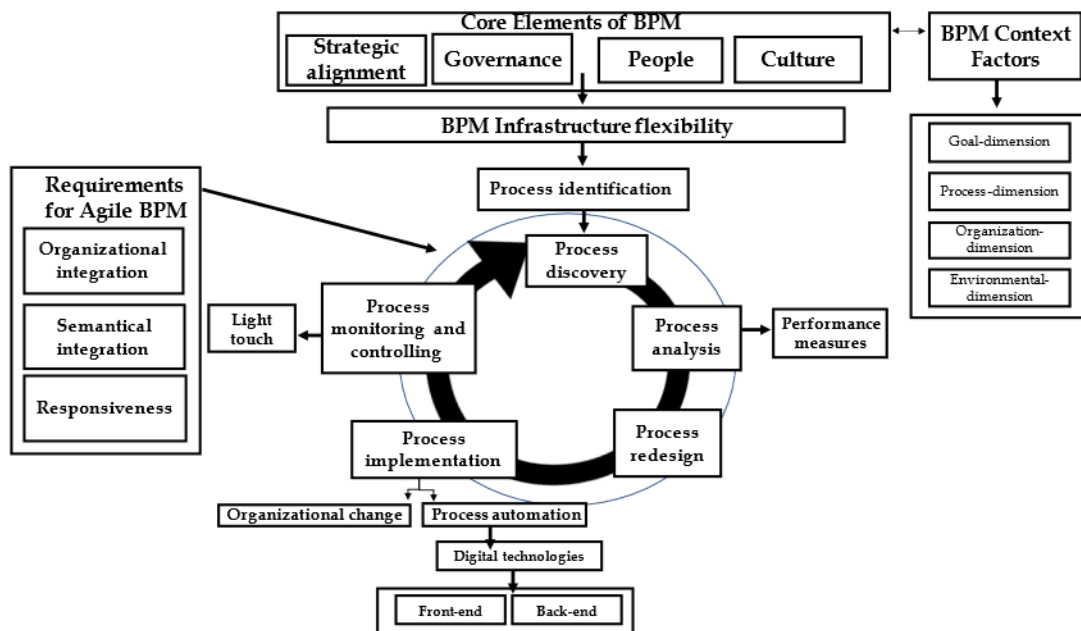


FIGURE 3 Extended BPM framework

Moreover, the exploitative BPM, an 'inside-out' approach from the problem-centric approach is moving toward explorative BPM, an 'outside-in' approach, where the focus is on capturing new opportunities by scanning the environment and assessing their suitability in the organizational context. The customer process management is aligned with the 'outside-in' approach. Thus, understanding the customer process is becoming increasingly important.

Continuous improvement and innovation require suitable fit between technology and business processes. In other words, business processes are sup-

ported by digital technologies and depending on the technologies used can either impede or promote innovation, flexibility, and agility. Similarly, employees need to know how to use the technologies in order to capture benefits. Especially SMEs with limited resources can consider management and assessment of organizational capabilities and processes time consuming. However, it is essential to know the current situation and what to do next in order to move to the right direction. Maturity models, also called stages-of-growth models or stage theories, are used to assess the current and desired state of an organization. Maturity models can also be used for internal and external benchmarking.

The knowledge base consists of theories, frameworks, models, and methods in the fields of organizational growth, internationalization of firms, digitalization and digital technologies, digital internationalization, business process management and maturity models, which are used to design and develop a model in accordance with the objectives of this study.

### 3 RESEARCH METHODS

This chapter describes the research method of this study, the research process and data collection and analysis methods. In order to build a model, such as the proposed digital internationalization model framework, it is necessary to select a research method that aligns with the purpose. The goal of design science research (DSR) is to create better and relevant solutions to address important problems (Gregor & Hevner, 2013). Therefore, the DSR method is chosen.

The development of the solution is a research process that emerges from existing theories and knowledge, and results in creation of a solution to the defined problem (Peffer, Tuunanen, Rothenberger & Chatterjee, 2007). Solutions comprise conceptual solutions, such as constructs describing concepts and symbols, models consisting of representations and semantics, methods comprising algorithms and techniques, or instantiations consisting of systems and products or processes (Gregor & Hevner, 2013).

The design science research methodology by Peffer et al. (2007) include the following steps in DSR: identify the problem, define the objectives of the solution, design and development, demonstration, evaluation, and communication. The six activities of DSR are explained here.

- Activity 1, *problem identification and motivation*, requires understanding the problem and breaking it into smaller parts in order to capture the overall situation and to have the building blocks to build a workable solution.
- Activity 2, *define the objectives for a solution*, involves considering the existing resources and possibilities against the identified problem, and determining whether the objectives are qualitative or quantitative.
- Activity 3, *design and development*, includes establishing requirements of the solution's functionality and its architecture, and finally building the solution.
- Activity 4, *demonstration*, involves the use of the solution, for example, using experiments, case studies, or other suitable activities, in order to demonstrate the workability of the solution.

- Activity 5, *evaluation*, involves observing how well the solution resolves the problem identified in activity 1 and comparing the results with objectives set in activity 2. The results determine whether it is necessary to return to activity 3 in order to do necessary improvements, or to continue to the final activity.
- Activity 6, *communication*, involves reporting of the process as a whole, requiring knowledge of the disciplinary culture. (Peffer et al., 2007.)

The DSR methodology process model including data sources and the section where each phase is described is shown below in figure 4.

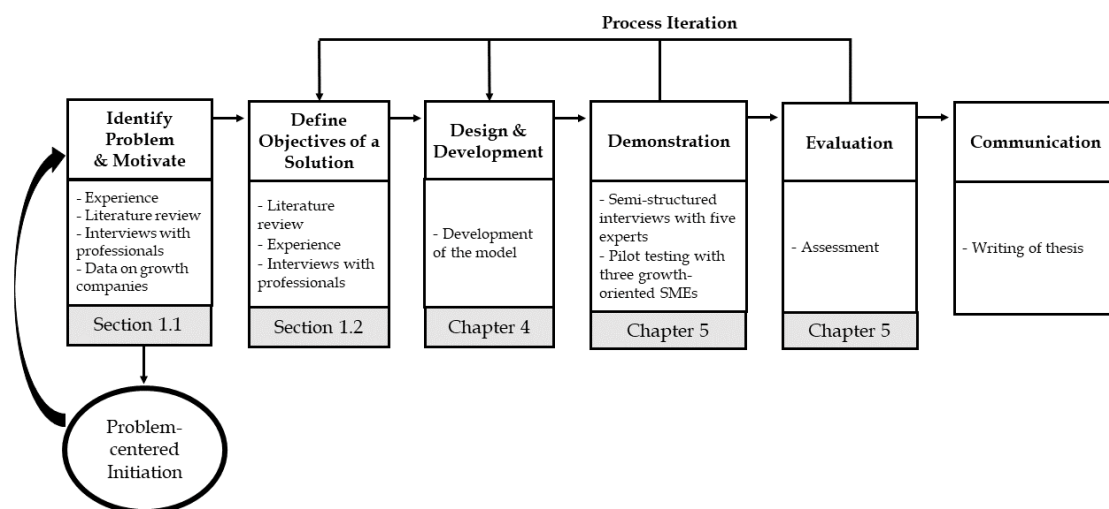


FIGURE 4 Design Science Research Method (based on Peffer et al., 2007, p. 54)

Furthermore, the data sources used in each phase are summarized as follows:

- The first phase included interviewing and discussing the topic of growth management with experienced professionals working with growth companies, as well as studying extant literature and going through data on nearly 600 responses on growth companies' improvement needs while confirming the results with personal experience.
- In the second phase, published literature was analyzed in order to identify relevant theories, models, and frameworks, after which the findings were discussed with professionals working with growth companies while also reflecting and utilizing own experiences in sales, marketing, export, and international activities to narrow down the options and to determine the objectives.
- In the third phase, a model was designed and developed based on the findings from previous activities.



- The fourth phase consisted of confirming the suitable content and testing the model in practice in collaboration with pre-selected experts and three growth companies.
- The fifth phase involved evaluation of the model with an evaluation sheet.
- In the final phase, the final thesis was written.

### 3.1 Research process

The research process followed the six phases of design science research defined by Peffers et al. (2007). Each phase of the research is described next. The entry point of the research was problem-centered, emerging from the author's own observations on challenges and opportunities fast growth SMEs encounter during the growth process.

In the first phase (activity 1), the identification and understanding of the problem situation was analyzed and identified, and the research motivation was defined with the help of extant literature, interviews and discussions with professionals working with growth companies, and data set on growth companies' development needs (i.e., sales, marketing, international operations, and technology management). The research problem and motivation are described in section 1.1.

In the second phase (activity 2), the aims and objective of the study were set. Further discussion with the professionals working with growth companies established the requirements for internationalization focus, simple structure, actionable practices with supportive questions, and the need for assessing the current and desired state in order to know how to proceed with digital internationalization. The literature review revealed that organizational development and raising the level of maturity in different areas of internationalization has not been addressed in earlier studies, which raised the need for a novel maturity model. Moreover, the most suitable research method was selected, and the research questions were defined. The objective of the research was to manage and improve the internationalization process of growth-oriented SMEs by applying BPM thinking and maturity model. The purpose of the model was to help growth companies analyze the current and desired state of the internationalization process and its related processes from the perspective of internationalization. The aim was to develop a model that companies can use both independently and as part of the growth community sparring program, regardless of whether the international activities are only at the beginning or already at a "later" stage. The objectives and research questions are described in section 1.2.

In the third phase (activity 3), a model was designed and developed based on the requirements of the growth companies sparring program professionals and using extant literature and own experience. Moreover, for the maturity model development de Bruin et al.'s (2005) development process for the maturity model was used. The development process is explained in chapter 4.

In the fourth phase (activity 4), the model was first presented to five domain experts and then tested in practice by three growth companies to demonstrate the workability of the solution. However, the scope of this study did not include comprehensive solution testing using the complete model to solve a specific problem of a company. During the testing, some minor changes were detected, which were thereafter corrected. The demonstration is described in chapter 5.

In the fifth phase (activity 5), the results were evaluated using an evaluation sheet (see table 9). Based on the evaluation, some changes to the context and design of the model were done in accordance with the defined objectives of the solution. The evaluation is explained in chapter 5.

In the final phase (activity 6), the process was communicated in a form of this written report.

## 3.2 Data collection and analysis

This study employs a range of data sources, which are described earlier in this chapter and summarized in figure 4. The study utilizes a qualitative research and data collection method. In order to make the problem of growth management more relevant to a larger audience, literature review and expert interviews are used (Offermann et al., 2009). Moreover, a qualitative interview is considered one of the most important data gathering techniques and it is suitable for all types of qualitative research (Myers & Newman, 2007).

The professionals working with growth companies provided valuable insight throughout the development process in terms of information about the growth companies' needs, contacts to suitable experts and growth companies, as well as ideas on what can work from the practical point of view. In the early stage of the study, supplementary insight was obtained from a dataset of growth companies' challenges and development needs. Semi-structured interviews were used, which allowed improvisation as necessary due to the incomplete script, for the demonstration and evaluation phases in order to obtain thoughts, opinions, and experiences (Myers & Newman, 2007).

The experts were selected in cooperation with the growth company sparing program representatives based on international experience working with SMEs. Two dominant Finnish private export trade specialist companies were chosen for the semi-structured interviews that were conducted online. Two interview sessions were held, one for each company. The purpose of the interview was to go through the model and get feedback on the content, practicality, and usefulness of the model from the perspective of a domain expert. The expert interviews lasted one to one and a half hours each. The background information of the domain experts is shown in chapter 5 in table 7.

After the expert interview, the recording was transcribed, and the feedback was summarized under each question. The summary of the interviews can be found in appendix 3. Especially feedback on what was missing, as well as

improvement suggestions were analyzed and categorized based on missing areas and sub-areas, and suggestions to the supportive questions, after which the model was modified accordingly. The interview summary and the modified model were sent back to the experts for checking.

The selection of growth companies was done in cooperation with the growth company sparring program representatives based on the stage of the company's international activities. One of the companies was recently founded and at the beginning of their international activities, while the other two selected companies already had international activities. The purpose of the demonstration was to discover what the growth companies thought about the model. Moreover, the aim was to understand the suitability of the model at different stages of internationalization. First, the model was introduced, and second, a part of the model was applied to the current needs of the company. The demonstration of the model was done online and lasted 45 minutes to one and a half hours. The background information of the companies can be found in chapter 5 in table 8.

After the presentation and testing of the model, an evaluation sheet was filled by the company to evaluate the feasibility, usability, and utility of the model. The evaluation sheet structure and the last question was based on a sheet used by Pries-Heje and Baskerville (2008) and the remaining questions were based on questions used by Adesola and Baines (2005). The recording of the presentation and testing session was transcribed, and the model was modified based on the feedback from the session. Also, minor errors detected during the testing were corrected before the model was sent to the company for further use. The evaluation of the model can be found in appendix 3.

## 4 DESIGN AND DEVELOPMENT OF THE MODEL

The purpose of this chapter is to document how the design and development of the model was carried out. The use of a standardized maturity model development process enables a stable development of a model that is well-founded, well-based, and generalizable (de Bruin et al., 2005).

The design and development process was structured into two phases, first, development of an initial model with actionable practices to manage growth from the internationalization perspective, and second, development of a maturity model. The integration of BPM thinking with maturity evaluation made the model more comprehensive. Both of the development phases are described next.

### 4.1 Constructing a model based on BPM life cycle

The first phase involved developing the first component, an initial model with actual doable steps and supportive questions reflecting BPM thinking. The development of the initial conceptual model derived from the synthesis of existing literature. The foundation of the model was based on ten principles of good business process management by vom Brocke et al. (2014), considering the requirements for agile BPM life cycle by Bruno et al. (2011), and BPM logics in the context of digital transformation by Baiyere et al. (2020). The basic structure of the model was inspired by the business process improvement (BPI) step activities and techniques by Adesola and Baines (2005). The developed model follows the BPM life cycle consisting of five activities, process identification, analysis, improvement, implementation, and monitoring and controlling, having 2-3 steps in each activity. In addition, the model includes actors involved in the process, output of each activity, and the supportive questions for each activity.

The model to manage growth from the internationalization perspective has been presented in table 5 and each activity is presented next.

TABLE 5 Managing growth through internationalization process

Activity	Steps	Actors	Output	Supportive questions
1 Process identifi- cation	1.1. Identify the current situation 1.2 Define the area to be re- solved	Process partici- pants Employ- ees Custom- ers Partners	General view of the cur- rent situ- ation and the to-be process	See Maturity Assessment worksheet
2 Process analysis	2.1 Identify current issues 2.2 Identify performance measures 2.3 List the is- sues in se- quence of im- portance	Process partici- pants	Priori- tized list	<ul style="list-style-type: none"> <li>•Have we met our international market share objective?</li> <li>•Have we achieved the turnover objective we set for internationalization?</li> <li>•Are we satisfied with our success in the international market?</li> <li>•What is the percentage of foreign customers and foreign partners?</li> </ul>
3 Process im- prove- ment	3.1 Prioritize the changes that can resolve the issues against performance measures 3.2 Select the best solution	Process partici- pants	To-be process model	<ul style="list-style-type: none"> <li>•What are the main tasks needed?</li> <li>•What is the desired outcome?</li> <li>•Who is involved in the process?</li> <li>•What is the value given to customers?</li> </ul>
4 Process imple- menta- tion	4.1 Assess technology options 4.2 Select suitable technologies	People who will use them should be involved Technol- ogy ex- perts	List of suitable technol- ogies	<ul style="list-style-type: none"> <li>•What technologies are in use? Are those integrated with other technologies in use?</li> <li>•ICT resources: cloud services, data analytics, mobile apps.</li> <li>•Enabling technologies for networking: website, social networking sites</li> <li>•Enabling technologies for information sharing: podcast, blog etc.</li> <li>•Enabling technologies for collaborating: wikis, blog, Twitter etc.</li> <li>•What new technologies are available?</li> </ul>
5 Process monitor- ing and control- ling	5.1 Analyze the process based on the perfor- mance measures 5.2 List new issues that have appeared which need to be changed	Process partici- pants	Assess- ment of the per- formance of the process List of new is- sues	

The first step is to identify the current and desired state together with the relevant stakeholders, such as process participants, employees, customers, and partners, using the maturity model and the supportive questions. The list of the initial supportive questions for activity 1 and the modifications after demonstration and evaluation are outlined in appendix 2. The output of this activity is a general view of the current and desired state including ratings for each dimension. After completing the assessment, the visualization of the situation can be found in the visual worksheet and an example of the visual representation view can be found in figure 12 in appendix 1. Example of the maturity assessment view of the model is presented in figure 5. Moreover, the development of the maturity model is introduced later in this chapter.

			Current	Desired	Set priority
<b>Business -&gt; Employees</b>			10/18	15/18	
	<b>International mindset</b>	Do we encourage employees' international orientation?	Low (1)	Moderate (2)	Low (1)
	<b>International experience</b>	Do we see all cultures similar? Do we know the local language to understand the nuances of meaning?	Low (1)	Moderate (2)	Moderate (2)
	<b>Branding and communication</b>	How do we want to be perceived? How is that communicated? Are we consistent with our message?	Low (1)	High (3)	Moderate (2)
	<b>ICT resources</b>	Do we have the needed technology and know-how? Do the employees need training to use needed technologies or raise awareness regarding cybersecurity practices?	Moderate (2)	Moderate (2)	High (3)
	<b>Digitalization level</b>	To what extent are day-to-day business activities (e.g. sales, customer service, new customer acquisition) done digitally?	Moderate (2)	High (3)	High (3)
	<b>Cybersecurity resilience</b>	Do we have guidelines regarding cybersecurity? Are our systems and website up-to-date?	High (3)	High (3)	High (3)
<b>Business -&gt; Service/Product</b>			7/18	17/18	
	<b>Service/product readiness</b>	Are the product/service scalable or does it need modification (product/service adaptation)?	Low (1)	High (3)	High (3)
	<b>Production readiness</b>	Do we have the needed capacity to produce the product/service?	Low (1)	High (3)	High (3)
	<b>Legal aspect</b>	Do we have the needed documentation in order?	None (0)	High (3)	High (3)
	<b>Unique selling point</b>	What are the factors that differentiates our product/service from its competitors? What are the sales arguments?	Moderate (2)	High (3)	Moderate (2)
	<b>Pricing aspect</b>	How is the product/service priced?	Moderate (2)	High (3)	High (3)
	<b>Implementation</b>	Can the installation/deployment/customer service etc. be accomplished in international context?	Low (1)	Moderate (2)	Moderate (2)

FIGURE 5 Example of the maturity assessment view of the model

The second activity is called analysis where the issues and opportunities are prioritized, performance measures identified, and the issues and opportunities listed in the sequence of importance. The prioritization can be already done while identifying and assessing the current and desired states. The performance measures can be identified with the help of the supportive questions for activity 2. The supportive questions related to performance measures can be chosen based on relevance, for instance, turnover from exports, or the percentage of foreign customers and foreign partners. The output of this activity is a prioritized list.

In the third activity called improvement the most important issue or opportunity is linked to an existing or new process. The supportive questions related to the main tasks, desired outcomes, and value of the process help to define different elements of the process. The output of this activity is a to-be process model.

The fourth activity is implementation, in which the technology options are assessed, and suitable technologies selected together with the people who will be using the technology. The supportive questions help to consider the relevant matters in terms of existing technologies, ICT resources, technologies for networking, information sharing, and collaboration. The output of this activity is a list of suitable technologies.

The last activity is process monitoring and controlling. In this activity the process is analyzed based on the performance measures, and consequently, new opportunities are identified and listed. The output of this activity is assessment of the process performance and a list of new issues and opportunities.

The structure of the model is shown in appendix 1. The model was developed into Excel based tool consisting of four data sheets: (1) a model based on business process management (BPM) life cycle, (2) maturity assessment, (3) visual representation of the current and desired state, and (4) rating scale descriptions.

## 4.2 Maturity model development

The second phase included the development of the second component, the maturity model, which works as an assessment tool and guides the current situation toward the desired state.

The development process of the maturity model follows de Bruin et al.'s (2005) suggested model, consisting of six development phases: scope, design, populate, test, deploy and maintain. The generic framework is summarized in figure 6.

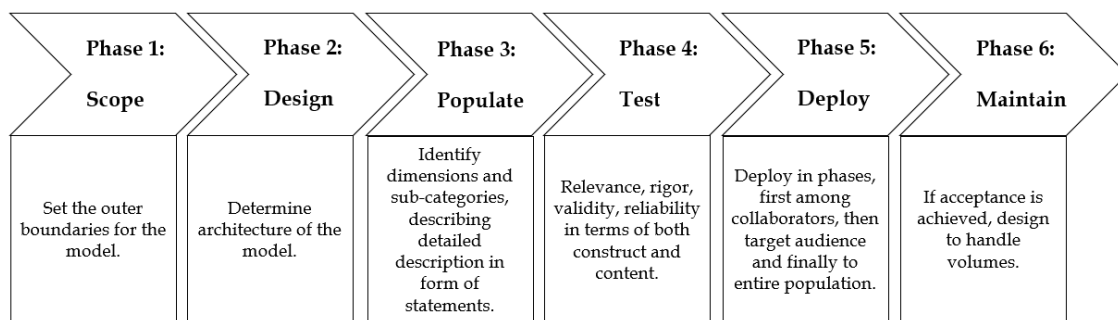


FIGURE 6 Phases of maturity model development process (adapted from de Bruin et al., 2005; Lasrado et al., 2015)

Prior to the first phase, existing maturity models were reviewed as a part of the literature review in order to discover what kind of components have been previously used, such as rating scales and process areas, and to determine the need

for a new maturity model development. The phases of the model development and the application are covered in the following sections.

#### **4.2.1 Scope**

The first phase involves deciding the focus of the model, whether it is designed to be generic or domain specific. The focus will distinguish the developed model from other existing models. Moreover, the focus also determines the specificity and extensibility of the model. Another decision is concerned with who will be assisting with the process of developing the model. (de Bruin et al., 2005.)

The primary focus of the developed model is domain-specific, the assessment focus is on factors influencing digital internationalization on growth-oriented SMEs. The development assistants are mainly practitioners, experts who have been working with SMEs. The aim is to capture domain specific issues and opportunities that are not considered too complex. The model enables the assessment of the as-is state, then determining the desired state, and finally deciding the priorities for each dimension and sub-section.

#### **4.2.2 Design**

The design phase determines the architecture of the maturity model, covering selection of audience, method of application, driver of application, respondents, and application. In the design process it is important to consider the needs of the intended audience and how the needs can be met. It is also vital to consider the reasons why the intended audience would use the model, how they would use it in different organizations, who needs to be involved in the process, as well as what are the benefits from using the model. (de Bruin et al., 2005.)

The audience can include the management of the company, possible facilitators, employees responsible for the international activities and IT, and in some cases the customers and partners as well. In other words, it can be a combination of internal and external audiences. Moreover, the method of application can be in a form of self-assessment or third party assisted. The drivers of application can emerge from internal requirements, for example the need for increasing digitalization level, or from external requirements, for example changes in country risk or level of competition. The respondents can be a combination of management, staff, and business partners. The application can be multiple entities in multiple regions. However, it is also possible to apply the model to one entity and one region at once. Moreover, it is impossible to cover everything at once, therefore prioritization is used to determine what is to be resolved and in which order.

Another decision relates to deciding the number of stages (de Bruin et al., 2005). Typically, the stages are represented as a number of cumulative stages, the lowest number representing lower maturity and higher number higher maturity (Maier et al., 2012). The aim was to make a simple and logical progression scale that can be used in different types of activities. Therefore, the chain of in-



ternationalization pattern from none through low commitment to high commitment was used to describe the internationalization mechanism. Here the levels are from none (Level 0) to high (Level 3) in addition to the possibility to choose not applicable, which implies the irrelevance of a particular sub-section. None refers to the non-existence of practices and low describes that some activities have been planned and started. Moderate refers to practices performed based on plans and high that the planned practices are also periodically reviewed, and the needed resources and skills and knowledge are available. The levels provide a foundation which can be used to identify the next steps forward. The levels and the model per se are not intended to be exhaustive and detailed, answering all the questions, but the aim is to provide a framework to help to identify the essential topics. Above all, practices at the higher level are better organized than at the lower level. The maturity stages can be found in table 6.

TABLE 6 Maturity levels of the developed model

<b>Maturity levels</b>	<b>Descriptions</b>
N/A	•Not applicable
Level 0: None	•No practices are performed
Level 1: Low	•Some practices are planned and performed
Level 2: Moderate	•Practices are performed based on plans •Practices are more complete or advanced than in Level 1 (Low)
Level 3: High	•Practices are performed based on plans and reviewed periodically •Employees have required skills and knowledge to perform the practices •Practices are more complete or advanced than in Level 2 (Moderate)

### 4.2.3 Populate

The third phase involves determining the content of the model. In order to keep the model simple, the number of dimensions and sub-areas should be kept low. The purpose is to identify dimensions and sub-areas, which are mutually exclusive and together comprehensive. (de Bruin et al., 2005.)

The factors of growth provided the starting point for the dimensions to be considered in the overall model. The dimension selection was based on models, concepts and approaches found within the extant literature and synthesized into five key themes. The first theme was based on vom Brocke et al. (2016) Framework of contextual BPM, and the rest of the themes were based on Kim et al.'s (2011) Interaction model. The sub-areas were selected based on the findings affecting the internationalization process, which were grouped under the appropriate themes or dimensions. Each dimension includes supportive questions in order to discover needed information and to determine the current state. The list of the initial supportive questions for activity 1 and the questions added

after demonstration and evaluation can be found in appendix 2. The figure 7 presents the different themes and sub-areas, which were initially considered influencing digital internationalization of growth-oriented SMEs based on literature.

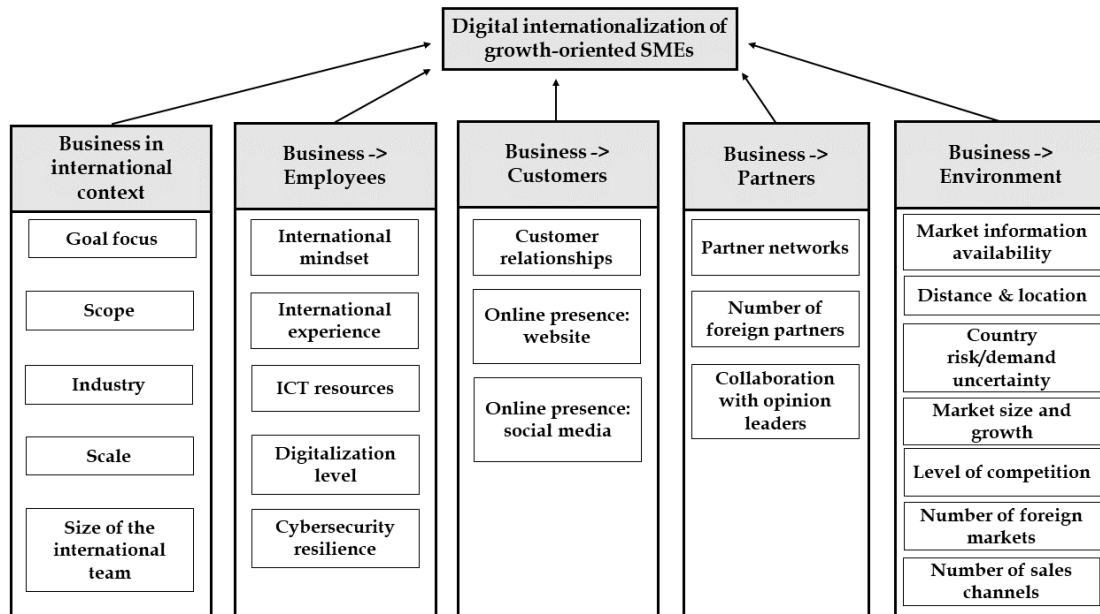


FIGURE 7 Factors impacting digital internationalization of SMEs based on literature

The first theme, business in an international context, does not measure the maturity, but instead it provides the foundation for the assessment. In other words, why is the assessment being performed and what are the available resources. The initial model included goal focus, scope, industry, scale, and size of the international team. Goal focus concentrates on the question of whether the intention is to improve something on the existing market process or to expand to a new market or focus on networking. Scope represents the question of whether the process is internal or between organizations. Industry specifies what has been offered, product, service, or both. Scale identifies the need for service/product modification in an international context. And the size of the international team defines the available resources. Basic information, such as year of foundation, turnover, turnover from exports, number of employees, were added based on the feedback from the expert interviews. Moreover, funding of international activities was included based on the feedback from experts to consider how the international activities are funded.

The second theme covers topics related to the organization's employees. The initial model included international mindset, international experience, ICT resources, digitalization level, and cybersecurity resilience. International mindset seeks answers to how the organization encourages employees' international orientation. International experience defines the level of cultural and language

knowledge of the employees. ICT resources relates to whether the organization has the needed technologies and know-how and the degree of employees' training to use the needed technologies. Digitalization level identifies the extent of digitalization of the day-to-day business activities, such as sales, customer service, and new customer acquisition. Cybersecurity resilience assesses the organization's information security readiness. Sub-section covering branding and communication was added based on the feedback from experts. The idea with branding and communication is to define how the organization wants to be perceived and how it is communicated.

The third theme encompasses the customers' side, the customer relationships, online presence from the website as well as from the social media perspective. The assessment of customer relationships includes finding answers to the technologies used by the customers, knowledge about the customer process, whether the customers are similar worldwide, and CRM usage and integration of marketing tools. Online presence assesses the website usability, accessibility, security, features, the use of analytics, and the number of social media channels and activity.

The fourth theme includes partner networks, number of foreign partners, and collaboration with opinion leaders. The aim of the partner networks sub-area is to assess the channels to find the right partners, the technologies in use for collaboration and partner training. The number of foreign partners reviews the suitability and the sufficiency of partners. The collaboration with opinion leaders assesses the possibility of opinion leader identification and cooperation. The partner management sub-section was added after the evaluation of the model with growth companies. Partner management aims to identify how well and efficiently the partner network operates.

The fifth theme covers the environmental factors related to international operations, such as market information availability, distance and location, country risk/demand uncertainty, market size and growth, level of competition, number of foreign markets, and number of sales channels. Market information availability assesses the access to market information. Distance and location consider whether the geographical distances are seen problematic. Country risk and demand uncertainty seek answers to questions related to financial and political risks, demand uncertainty, country legislation and taxes. Market size and growth assesses the possibilities for growth and market attractiveness, and thus can influence the decision to enter a particular market. Level of competition reviews factors related to competitors and pricing. Number of foreign markets aims to determine the markets in relation to the organization's resources. Number of sales channels reviews whether the sales are done by the organization or through distributors. Number of foreign markets and number of sales channels do not have a maturity level as such (none to high level), but numbers are used instead, as the aim is to raise awareness and set desired goals.

Service/product theme was added based on the feedback from experts on the importance of the service/product readiness. This dimension includes service/product readiness, production readiness, legal aspect, unique selling point,

pricing aspect and implementation. Service/product readiness considers whether the product or service is scalable or if modifications are needed in the international context. Production readiness assesses the capacity to produce the products or services. Legal aspect reviews the need to consider legal documentation in an international context. Unique selling point seeks answers to what differentiates the product or service from competitors and what are the relevant arguments. Pricing aspect considers the pricing strategy. Implementation evaluates the installation and customer service readiness in an international context.

The figure 8 presents the updated themes and sub-areas, which were confirmed by domain experts and selected growth companies to influence digital internationalization of growth-oriented SMEs.

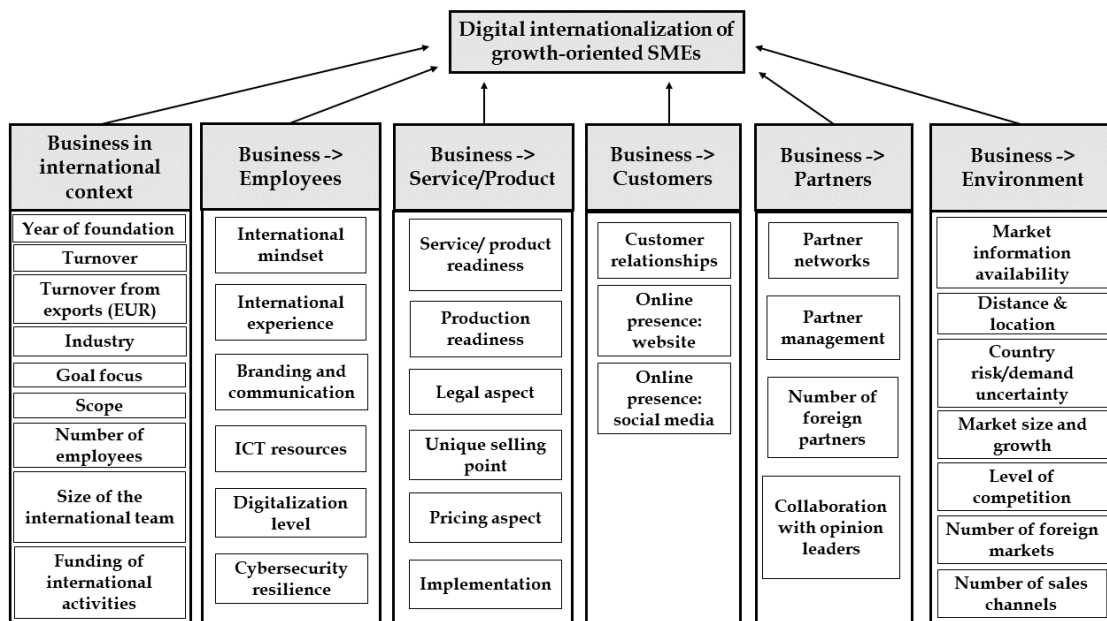


FIGURE 8 Factors impacting digital internationalization of SMEs

#### 4.2.4 Test

After the populate phase, the model needs to be tested. The phase includes testing validity, reliability, and generalizability. Face validity is assessed by evaluating whether the purpose is clear, and the use of wordings are relevant. Content validity is assessed in terms of how comprehensively the domain area is represented. (de Bruin et al., 2005.) The validation has been tested by extensive literature review, using semi-structured interviews to seek agreement with domain experts, as well as using pilot testing in order to determine the model usability and acceptability.

Following the literature review, the model was presented to five domain experts. The model was sent in advance together with background information. The demonstration and evaluation were done online. The interview began with introduction of the participants, after which the main concepts of business pro-

cess, business process management, and maturity models were presented, in addition to introducing BPM context framework by vom Brocke et al. (2016) and the extended BPM life cycle framework. After the main concepts were introduced, the model was presented. Finally, the content and its comprehensiveness, practicality, and usefulness were assessed, and the results are introduced in chapter 5.

After the semi-structured interviews with experts, the model was presented and partly tested with three growth-oriented SMEs. The companies received background information about the model and its development process prior to the demonstration and testing session. In the beginning of the online session, the background information of the company was noted, after which the model was presented. After the presentation, the first activity including going through all the supportive questions of the maturity model was completed. Finally, the feasibility, usability, and utility were assessed. The evaluation is covered in chapter 5.

#### **4.2.5 Deploy**

Following the testing phase, the model needs to be made available for use and the distribution channels of the model needs to be determined (de Bruin et al., 2005). The purpose was to build a model that is easy to use as a self-assessment tool as well as a third-party assisted tool while reaching and benefitting as many SMEs as possible.

The primary distribution channel is planned to be through the Finnish business growth sparring program community. Additionally, another party has shown interest toward the model.

#### **4.2.6 Maintain**

The final phase, maintain, is concerned with following the model evolution and development. The need and degree of resources to maintain the model depends on the goal of the model. The model will evolve together with the domain knowledge and as the model understanding becomes more comprehensive. (de Bruin et al., 2005.)

At this point it is difficult to determine the need for maintenance and it will remain to be seen after the model has been in use for some time.

## 5 EVALUATION

This chapter describes the evaluation of the developed model. The model was evaluated based on its worth in terms of feasibility, usability, utility, and validity, in addition to concluding whether the goals were achieved and valued also outside the development environment (Gregor & Hevner, 2013). For evaluation phase expert interviews and pilot testing were used.

The following sections introduce firstly the feedback from experts and secondly the responses of the growth companies.

### 5.1 Interviews with domain experts

The purpose of the domain expert interviews was to present the model and get feedback on the content, practicality, and usefulness of the model from the perspective of a domain expert. The questions covered in the interview included:

1. How important do you see the different aspects of the model? Is something missing? Is there something extra?
2. What is good about the model?
3. What is bad about the model?
4. Do you think the model would work in practice?
5. Are there any suggestions for further improvement?

At the beginning of the interview, the experts were also asked what kind of tools they currently use in their work to promote the internationalization of companies. Forms and questionnaires were commonly used to collect background information from companies in addition to discussions. According to the experts, the presented model provided a new and interesting approach to internationalization of SME that they had not seen before.

The selected experts had 5-20 years of experience in international operations in diverse roles in multiple projects. Table 7 presents the background information of the experts.

TABLE 7 Background information of the domain experts

Identifier	Experience in international operations	Role
Expert 1	over 15 years	Diverse role, has been involved in the implementation of more than 500 projects in more than 30 markets.
Expert 2	over 5 years	International trade from a marketing and communications perspective.
Expert 3	over 20 years	Acquisition of new customers and development of companies' export operations. Has done export trade to more than 60 countries, on every continent.
Expert 4	over 20 years	Experience in exporting in both large and small companies as well as in the role of an entrepreneur, where exports and international operations have been commonplace.
Expert 5	over 8 years	Development of digital tools. Has acted as an international liaison officer and participated in the development of international networks.

In regard to the first question asked, what was considered missing from the model was the service/product aspect. The product and production were considered important in the international context, namely, service/product international readiness, production readiness, capacity, packaging materials, law, competitive advantage, price, and implementation. Matters related to a product or service must be adapted to suit the international market. One of the experts described the service/product aspect as a crucial matter to consider:

The product or service must be in order before it makes sense to go international. It is one of the most important things. (Expert 3)

From the sub-area perspective, funding of the international activities, identification of competitive advantage, also called unique selling point, and branding and communication were considered missing. One of the experts pointed out that also financial resources are needed to act. Thus, companies should think about the financial aspect before moving forward with their internationalization plans. The identification of competitive advantage was added under service/product dimension. Another sub-area that was considered important was the company's image, communication, and branding and how they are presented. The company image was described as follows by two of the experts:

It may be that a company has great products and great know-how but company's communication on their website and their marketing material does not really match the image of an international player or the desire to become an international player. The thinking that service/product is the determining factor is still very common in Finland when actually the big picture is the determining factor. The customer wants to know what kind of company it is, first creating an image of how things are handled, for example, how personnel matters are handled, the company's soft values and long-term strategy, after which they get acquainted with the products and services. (Expert 4)

Communication and branding are important, but they tend to be overrun by more concrete things. (Expert 5)

According to the feedback, the supportive questions should have more focus on business-to-business perspective in the customer relationship sub-area, such as telecommunication and event platforms and matchmaking tools. It was suggested that legislation, certification, and taxes are added to the sub-area of country risk/demand uncertainty. Moreover, it was concluded that even more questions can be certainly invented, however, the next step is to get actual companies to use the model, which will reveal the relevance of questions. That is, nothing was considered to be extra in the model at this point.

In terms of what was considered good about the model was that all aspects are taken into consideration. The supportive questions were believed to be good and to provide companies food for thought. One of the experts noted that it was good that topics, such as international mindset and international experience, are also considered.

Furthermore, there was nothing bad about the model noted at this stage. Moreover, the suggestions for further improvement included putting emphasis on different dimensions, for example based on industry. Also, more attention should be put on issues related to the company image. Finally, it was concluded that the improvement needs will be discovered while using the model.

Moreover, it was noted that it is important that decisions are made based on some data. The data collected using the model can be useful for companies and can be used to determine what is needed to succeed. It was suggested to add basic information at the beginning of the model, such as year of foundation, turnover, number of employees, so that the model provides comparable data.

The objective was that the model can be used regardless of whether the international activity is only at the beginning or already at a "later" stage. However, based on the supportive questions, the model was seen more suitable for stable companies who have been in business for a longer period of time, rather than for young companies or companies in the startup phase. It was noted that the best thing about this model is that startups get the data to be able to compare themselves to other companies that have operated in the international market.

The model could help startups to outline the necessary actions and mirror themselves to the rest among those who have already taken action. (Expert 5)

To summarize, according to the experts, companies could benefit from this kind of models if they were available. The model was considered useful and scalable, and the experts believed in its practicality. Moreover, the model was easy to use and employed an interactive way to explore different aspects of internationalization. It was concluded that the model has potential for further development.



## 5.2 Pilot testing with growth companies






The purpose of the pilot testing was to discover what growth companies themselves think about the feasibility, usability, and utility of the model. The selected growth companies were founded within ten years, two of them operated in the software industry and one in the welfare services. The companies represented different stages of growth and internationalization. The table 8 presents the background information of the companies.

TABLE 8 Background information of the growth companies

Identifier	Founded	Industry	Number of employees	The stage of internationalization
Company 1	2020	Software design	1	In the beginning, planning
Company 2	2015	Welfare services	17	Operations in 6 countries
Company 3	2011	Software services	29	Operations in 10 countries

The demonstration and testing included first presenting the entire model to the managing or business director of the company, after which the first activity was reviewed together. After presenting and testing the first activity of the model, an evaluation sheet including questions on feasibility, usability, and utility was filled in. Also, it was possible to comment or give improvement suggestions about the model (see appendix 3 for the summary). The summary of the evaluation of the developed model is shown in table 9 below.

TABLE 9 Evaluation of the model by the companies (based on Pries-Heje & Baskerville, 2008; Adesola & Baines, 2005)

Question						Don't know
Feasibility: can the model be followed?		Company1 Company2 Company3				
Usability: is the model working?		Company1 Company2	Company3			
Usability: are the steps, tools, and techniques easy to use and apply?		Company1 Company2 Company3				
Utility: is it worth following the model?		Company1 Company2	Company3			
Utility: is the model to produce results that the company finds useful?		Company1 Company2	Company3			
	<b>A lot</b>	<b>Partly</b>	<b>Some</b>	<b>Little</b>	<b>Not at all</b>	<b>Don't know</b>
To what degree will you expect to use the model after today	Company1	Company2	Company3			

In respect to feasibility, one of the companies commented that following the model requires explaining the process. Moreover, from the feasibility and usability perspectives, two out of three companies noted the impracticality of having to jump from one Excel sheet to another in order to get more information. The suggestion was to include the supportive questions of activity 1 on the same worksheet with the actual maturity assessment, so that there would be no need to jump between different worksheets. In the final version of the model, the supportive questions were included on the maturity assessment worksheet. Despite this, the companies found the steps, tools, and techniques easy to use and apply.

Another point that was noted by company 1 and company 3 was regarding the prioritization and how it could be improved:

The visual side could be improved so that you can see, for example, what are the three most important things and what should be done and in what order, e.g., each area could have an ABC priority list to see a ready-made list of things to do in practice.

Scalability could be increased. A combination of answers, e.g., high, high, high, could bring follow-up questions and ask for clarifications to differentiate between different areas and identify the most critical areas to know what to look for first. In that case, if everything is already at the highest level, then you do not really know how you could improve.

From the utility perspective, the model was seen worth following and to produce results that are useful for the company. For instance, company 3 described the model thought-provoking:

The model seems good. It provoked some thoughts and indicated where we are at.

In addition, company 2 noted that the model could be used for status checks:

The model could serve as a status check from time to time.

In terms of the content of the model, one of the companies saw partner management as a crucial factor in the international context and suggested extending the partner dimension by adding partner management and related supportive questions on how well and efficiently the partner network operates and how partner management has been implemented. Partner management and related supportive questions were included in the final version of the model.

Moreover, the environmental dimension required some clarifications. What was realized with company 1 was that the environmental factors cannot be influenced and thus, the priority cannot be easily set to all sub-areas. On the other hand, with company 3 it was noticed that the environmental factors can affect the market selection and priorities can be set to those areas that are important and require attention. In addition, it was not always clear whether to choose high or low, as company 2 pointed out:

For example, in Distance and Location, it is a bit unclear which is high, and which is low, i.e., if it does not matter where it is sold, then is it high or low?

Except for the above question, the questions were considered good and relevant to the topic, which is demonstrated by the companies as follows:

Good things are asked, and you have to think about relevant things. (Company 1)

Now that things have already been thought through and done, it was easy to answer, but two years ago it would have taken more time to think about the answers and the model could have served even more to clarify our own thoughts. (Company 2)

Interesting angles, many familiar things. (Company 3)

All in all, the model was seen as useful, and the companies are planning to use the model to some degree in the future. Moreover, the exercise was described as easy and light, covering different areas from many perspectives.

## 6 DISCUSSION

This chapter presents the answers to the research questions and summarizes the process of how the outcomes were determined. This chapter also discusses the contribution and implications for practice and research, and finally considers limitations and proposes further research.

### 6.1 Outcomes of research

The main objective of this research was to create a generalizable model to manage and improve the internationalization process of growth-oriented SMEs. The study sought answers to the following research questions:

- What kind of model should be developed for supporting growth-oriented SMEs to manage and improve their digital internationalization process?
- What are the components required to implement internationalization?

This study proposes a novel model that guides growth-oriented SMEs with their internationalization process through two components: (1) the internationalization model based on the business process management (BPM) life cycle, which consists of 1-5 activities, namely, process identification, analysis, improvement, implementation, and monitoring and controlling, and (2) internationalization maturity model, a maturity assessment covering dimensions of business in an international context, employees, service/product, customers, partners, and environment. The outcomes will be further discussed with regard to the relationship between the model and extant literature.

Understanding the phenomenon of growth was an important starting point for the development of the model. Organizational growth is a process of sequential phases, from birth to maturity, during which the priorities and strategies change (Dillen et al., 2014). Growth is an internal development (Achten-

hagen et al., 2010) dependent on internal and external factors (Arasti et al., 2014). Internal factors encompass employees, service/product, and technology and external factors include customers, networks, and environment. Moreover, the relevance of different dimensions of growth varies between companies and in different times (Achtenhagen et al., 2010), thus providing a number of options for managing growth. Sustainable growth can be achieved through increasing the number of exporting countries and focusing on development activities (Gabrielsson et al., 2014). Moreover, digitalization furthers the internationalization process of SMEs (Dethine et al., 2020).

Digital technologies are used to enhance and enrich internal activity systems, customer interactions, digitalization of products and services, and digitalization of marketing (Autio, 2017). The developed model considers the use of digital technologies in a multiple way, such as raising the awareness of the company's digitalization level, ICT resources, and the use of technologies in customer and partner interactions. However, instead of embracing all types of digital technologies, companies should build a competitive advantage by finding unique capabilities within digital technologies (Cassetta et al., 2020). The model supports the process of assessing the technology options and selecting the suitable technologies. Continuous improvement requires suitable information and fit between business processes and technology (Trkman, 2010).

The first component of the model approached internationalization with BPM thinking. In the context of growth companies, it was crucial to consider the fast-paced environment where growth companies operate and apply theories that support the ability to react with speed to changes. The requirements for agile BPM life cycle proposed by Bruno et al. (2011) were relevant in that they covered consideration of all stakeholders' requirements to the BPM (organizational integration), making sure that common understanding of the terms used in BPM is created (semantic integration), and adapting BPM in accordance with the internal and external factors (responsiveness). Moreover, BPM logics proposed by Baiyere et al. (2020), provided relevant considerations in areas of modeling, infrastructure, and agency, replacing rigorous modeling of business processes with light touch approach (process logic), infrastructure alignment with infrastructure flexibility (infrastructure logic), and procedural actors with mindful actors (agential logic), while considering adaptiveness, experimentation, and ambidexterity as the underlying values. From the model perspective, it was necessary that the BPM life cycle with modeling and well-structured processes focusing on issues and the improvement process was replaced with an ambidextrous and agile BPM approach focusing on opportunities rather than issues while still running the current operations with known tools and techniques. Getting all relevant stakeholders to participate in the process is essential.

Moreover, the practices are normally defined based on principles and best practices while combining new ways of thinking. Therefore, ten principles of good business process management proposed by vom Brocke et al. (2014) had an important role in the design of the model. The principle of context-awareness is included as a starting point in the maturity assessment. The BPM

life cycle supports the principle of continuity. The principles of enablement, holism, and institutionalization are considered in the maturity model in terms of covering areas of internationalization as a whole and assessing the different areas needing attention and improvement. Considering and defining the actors involved in the process supports the principles of involvement, understanding and simplicity. The purpose aims at value creation through internationalization, which supports the principle of purpose. And the principle of technology appropriation is included in activity 4 (process implementation), in which the technology options are assessed, and appropriate technologies selected. The model includes supportive questions that each organization can consider from their own current context and perspective and determine the actions to be taken by prioritizing the relevant areas.

The second component of the model approached internationalization with a maturity model. The internationalization maturity model was based on extant literature, expertise and experience of the fast growth companies' community, interviews with domain experts as well as feedback from growth companies.

The research provided a model which presents the dimensions to consider in the internationalization context, namely, business context, employees, service/product, customers, partners, and environment. The business context dimension was inspired by vom Brocke et al.'s (2016) Framework of contextual BPM and the remaining dimensions were based on the Interaction model by Kim et al. (2011). Also, the factors of growth consisting of growth orientation, growth ability and growth opportunity, which are enabled by the organization itself, the team, the customers, technology, networks, the environment, and markets played an important role in the design and development of the model. Moreover, the extant literature introduced a number of factors to consider in terms of doing international business, which were placed under appropriate dimensions creating sub-areas for each theme. According to Skudiene et al. (2015), important antecedents to internationalization included information availability about the markets, international mindset, and international business networks. Also, Johanson and Vahlne (2009) emphasized the importance of networks. Hervé et al. (2020) presented factors such as accessibility, resources, competences, market knowledge, distance and location, and relational competences and partner networks. Westerlund (2020) pointed out the importance of partnering, customer relationship, and business process management, as well as ICT resources and cyber resilience. Cerrato et al.'s (2016) six dimensions of firm internationalization covered assets/resources, people/attitudes, capital, geography, relationships, and revenues. The dimension of people and attitudes referred to the international orientation. The geography dimension referred to number of countries, and the relationships dimension to business network and the range of opportunities accessible. The revenues dimension included the ratio of foreign sales. (Cerrato et al., 2016.) Kuivalainen et al. (2010) introduced the degree of internationalization of the firm, which can be described as a snapshot of the firm's situation in terms of number of foreign markets, foreign part-

ners and share of foreign sales out of the total turnover. As a result of considering all the factors, the model content was built.

The dimension of business in an international context includes background information of the company, for instance, year of foundation, turnover, turnover from exports, industry, size of the international team and funding of international activities. Employees dimension consists of matters related to the internal capabilities, such as international mindset and experience, ICT resources and digitalization level. The dimension of service/product relates to product and service readiness in an international context, covering sub-areas of production readiness, legal aspect, unique selling point, pricing aspect and implementation. Customer dimension includes customer relationships, online presence from website as well from social media perspectives. Partner dimension encompasses matters concerning partner networks, partner management, collaboration with opinion leaders and number of foreign partners. Environment dimension includes external factors related to market information availability, distance and location, country risk and demand uncertainty, market size and growth opportunities, level of competition, and number of foreign partners and sales channels.

The evaluation of the model was conducted using semi-structured interviews with five domain experts having 5-20 years of experience in international operations in diverse roles in multiple projects, and pilot testing part of the model with three growth-oriented companies. The model content and structure were considered clear and comprehensive. The model was tested with companies that were at different stages of internationalization from two different industries, i.e., software and welfare. One of the companies was at the beginning of planning internationalization activities, whereas the other two had already operations in 6-10 different countries. The companies that had already international operations were familiar with the subject areas and the expected use of the model in the future seemed to be lower compared to the company that was in the planning phase. Also, it was indicated by one of the companies already having international operations that the model could have served even better to clarify thoughts at the point when the matters related to internationalization had not been thought through yet. Based on this observation it can be concluded that the current version of the model serves companies better in the early stage of internationalization. On the other hand, during the expert interview, the model was considered to be more useful for companies at the later stage of their internationalization. It should be noted that at the later stage of internationalization the model was considered useful for status check by the growth companies. Above all, all the companies considered the model to produce useful results and saw the model worth following regardless of the stage of internationalization or industry. However, the usefulness could be increased by further development of the model, especially the rating scale and prioritization in order to determine the most urgent matters. It can be seen that more practical suggestions were needed in terms of what should be actually done for each sub-area after the sub-areas were prioritized.

The comparison to extant literature can be considered challenging due to the lack of research and solution proposals for maturity models in terms of digital internationalization process. Moreover, there are a limited number of maturity models developed specifically for SMEs in general (Virkkala et al., 2020).

In view of existing maturity models, section 2.7 of the literature review examined the frameworks of three maturity models (CMM, ITPM, PEMM). Maturity models are usually developed for a certain purpose in mind (focus) and either for a certain industry or for general purpose. They cover process areas, which are considered important for that specific domain and the maturity levels, which measure the level of maturity of each process area. Maturity models are often derived from earlier maturity models.

In order to compare the developed model to an existing model, a general-purpose business process maturity model for SMEs developed by Andriani, Samadhi, Siswanto and Suryadi (2018), which uses the organization's growth stages in increasing the maturity level of business processes to encourage growth, was chosen for closer review. The model was developed for self-evaluation in order to assess the company's current growth stage, i.e., entrepreneurial, growth, expansion, and collaboration, and to guide the company toward business process improvement without requiring assistance from third parties. The conceptual model development had three phases: identification of the characteristics of the organization's growth stages, mapping of the business processes, and measuring the level of maturity of the business process. The variables used to identify the growth stages in the first stage were based on extant literature and included organizational goal, organization structure, product-market variation, top management style and major investments. In the second phase APQC's Process Classification Framework (PCF) was used for mapping of the business processes focusing on operating process categories, i.e., develop vision and strategy, develop and manage products and services, market and sale products and services, deliver products and services, and manage customer services. The model adopted the maturity levels of the BPMM-OMG (2008) model, having five levels, i.e., initial, managed, standardized, predictable and innovating. Factors as indicators of the business process maturity included the initiator of the process implementation (actor), the time period for the implementation of the process (process schedule), and the standards used for the process (process standard). Three case studies were used to validate the model. The model was a simplified version compared to other similar types of models and the self-evaluation factor encouraged SMEs to use the model with lower cost. (Andriani et al., 2018.) The simplification and consideration of limited resources are some of the common factors between Andriani et al.'s (2018) model and the model developed in this study. Moreover, utilization of existing maturity models is vital and recommended. In both cases, the results show that organizations grow through different stages and the characteristics of each growth stage are different and require monitoring and adapting business processes to the changes.



This study was carried out by following the methodology for design science research defined by Peffers et al. (2007). The methodology provided a good structure for the implementation of this study, which is presented throughout this thesis. Therefore, the study did not only provide the answers to the research questions, but it also provided insights on the different phases of using design science research to develop a new model using multiple data sources.

## 6.2 Contributions and implications

The results of this study have implications for research and practice. The contribution is assessed in terms of how the solution can be applied to the business needs in an appropriate environment (Hevner et al., 2004). The key contribution of this study was the internationalization maturity model that helps growth-oriented companies to assess the current maturity of different business areas and to identify areas for development and improvement while integrating the results into company's business processes. With regard to theoretical implications, the result is a novel assessment model, which is based on the extant literature on organizational growth and digital internationalization and reflects the structure of existing maturity models. The integration of the assessment model into ambidextrous BPM thinking makes it possible to understand the way practitioners address internationalization with a holistic view of business. Also, introduction of ambidextrous BPM in the context of growth companies provides a contribution to the theory of BPM. The knowledge contribution of this study was improvement based, development of a new solution to a known problem.

With regard to the practical implications, the developed model enables practitioners to assess their current and desired state of relevant business areas and related business processes and suitable technologies in a structured way. Moreover, the relevant business areas used, i.e., employees, service/product, customers, partners, and environment, sheds light on holistic consideration on how the business areas and their maturity assessment, business processes and digital technologies relate to each other. The actionable practices help to guide the process and discover relevant improvement needs. Moreover, the maturity states can be prioritized depending on the context at hand. Not only can the model help SMEs but also provide important insights for the fast growth companies' community in general to guide growth-oriented SMEs with their internationalization process. Also, the study provides insights on the growth factors for achieving growth, which can further future research in the field of growth companies.

Relevance is ensured by feedback provided from the application domain and rigor by applying appropriate foundations (Offermann et al., 2009). The relevance was confirmed by challenges and opportunities discovered by the author, discussions with professionals working with growth companies, dataset of nearly 600 responses on growth companies' challenges and development

needs, as well as pilot testing with growth companies. The rigor was obtained by experience and expertise of domain experts, author's own experience, and extant literature, such as developing maturity models and factors affecting internationalization. The contribution of the thesis is outlined in figure 9.

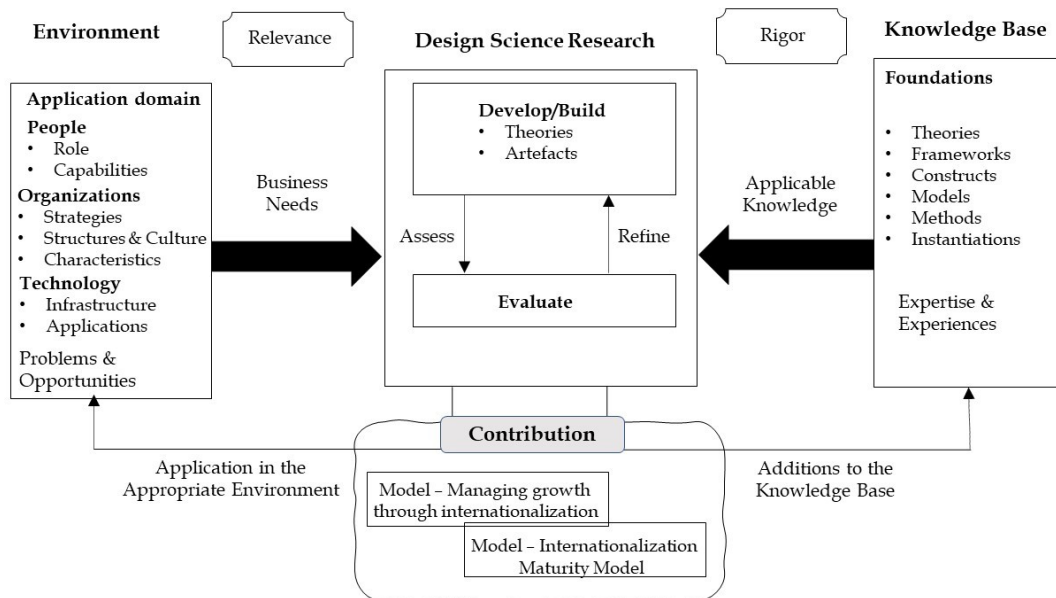


FIGURE 9 Contribution of thesis (based on Hevner et al., 2004; Hevner & Chatterjee, 2010)

### 6.3 Limitations and further research

While the study has provided important new insights, there are some limitations that should be acknowledged. The first limitation is that the model was presented and partly tested with three companies from two different industries in different stages of internationalization. Therefore, it cannot be stated with absolute certainty that the model would be suitable for all organizations and in different stages of internationalization. However, the model can be said to serve as a framework to support the internationalization process at different stages of internationalization.

The second limitation is that a comprehensive model testing using the complete model is generally not possible due to the limited scope of the study, which although raises the question in regard to the practicality of the overall model and whether companies would need detailed instructions on how to carry out all the activities in practice.

The third limitation is that the study was conducted in a Finnish setting, with a Finnish author, experts, and companies, which raises another question whether the model can be used the same way in an international context. To address these limitations, further research would be required.

In the process of this study and while testing the model, a number of interesting topics for further research were identified. The improvement suggestions from experts and growth companies were related to the current form of the model, maturity levels, and relations between maturity levels and prioritization.

The developed model is currently an Excel based model with multiple worksheets. Further development of the model into a web-based form was suggested before the model is commercialized. During the testing of the model, it was acknowledged that there should be additional maturity levels to distinguish between low and moderate and moderate to high. Furthermore, the prioritization and scalability should be developed further so that it would be impossible to set all priorities to high or alternatively have additional questions that appear when a certain sub-area is set to high or low in current, desired and priority to know what to look for and what to do first. There could also be different emphasis depending on the industry. Moreover, it was suggested that after finishing the assessment, the results of each area would show three most important things and what should be done in practice and in what order.

Furthermore, the model deployment in a wider use and outside Finland can generate interesting new research opportunities. A wider use of the model will show the practicality and usefulness in the long run and whether the internationalization process is considered easier when using the model. The new findings can be used to further develop the model to a refined version. Also, it could be explored how the benefits and challenges of using the model as an independent tool or as part of a sparring program affect the internationalization process. In addition, the collected material during the use of the model can be utilized for benchmarking and helping companies to start and improve their internationalization process, which could be further studied. For example, what are the success factors in different maturity levels of the internationalization process and whether some patterns can be detected within industries or between industries.

Additionally, growth research has been more focused on the antecedents of growth, not the actual conditions for realizing and managing growth. Therefore, it would be useful to conduct further research on the factors of growth and their relationship between maturity levels.

## 7 CONCLUSION

Giving the importance of organizational growth in the digital age in the context of internationalization, there is a need for SMEs to assess the maturity of their internationalization process from different perspectives in order to map their way from the current state toward the desired state. However, actionable practices to manage growth from the internationalization perspective as well as a practical model for assessing the maturity of internationalization in a growth-oriented SME context seemed to be missing. Therefore, the study sought to answer the questions of what kind of model should be developed to support SMEs to manage their digital internationalization process and what are the components required to implement internationalization. It was discovered that little was known about how to assess the maturity of internationalization in a growth-oriented SME context, requiring a development of a new model. Therefore, the overall purpose of this study was to develop a model that considered the organization's processes, digital technologies, and the maturity of different aspects of internationalization.

The model was developed based on extant literature and using expertise and experience from the fast growth companies' community. The literature review consisted of themes for model content and structure. The content was based on literature on organizational growth, digital technologies, and digital internationalization, whereas the structure was based on business process management (BPM) life cycle, ambidextrous BPM, and maturity model. The business areas of the developed model encompass employees, service/product, customers, partners, and environment. The BPM life cycle framework was used as the foundation for the structure, having actionable practices to help to guide the process and discover relevant improvement needs. Also, context and agile BPM were considered important due to the need to react fast and flexibly to any situation at hand. Moreover, considering the turbulent environment where growth companies operate and limited resources, it is important to focus on managing current operations while looking for new opportunities. For this reason, the model was built on the idea of ambidextrous BPM, not only looking for issues

but also exploring new opportunities while assessing the maturity, business processes and digital technologies.

The model was developed by following the design science research methodology by Peffers et al. (2007) and the maturity model development process by de Bruin et al. (2005) consisting of six development phases (i.e., scope, design, populate, test, deploy, and maintain). The study employed a range of data sources, including discussions with professionals, dataset of growth companies' development needs, extant literature, semi-structured interviews with five domain experts, and pilot testing part of the model with three growth companies. The model was developed using an iterative process.

The evaluation by domain experts was based on content, practicality, and usefulness of the model. The model was considered useful and scalable by the experts and believed to be practical. Moreover, the model was considered something novel, approaching the internationalization process in an interactive way that has not been seen before. The growth companies evaluated the model based on feasibility, usability, and utility and considered the model useful and covering relevant topics. Each company had intentions to continue to use the model in the future. The expected use of the model in the future was noticed to be higher at the earlier stage of internationalization, whereas at the later stage the model can serve as a status check from time to time. Based on this remark, it can be concluded that the model can be useful at all stages of internationalization and different industries. However, the use could be considered more beneficial and time consuming at the early stage, as the matters related to internationalization have not yet been considered in full.

Existing ideas were combined and simplified and as a result a generalizable model was developed that serves the purpose of measuring the growth readiness of internationalizing SMEs in many stages and situations. This study serves as a starting point for further discussions and developments in terms of organizational growth and managing internationalization with maturity models. What is more, the concept of the model attracted the interest of the domain experts and the possible commercialization of the model is under consideration. Thus, it can be concluded that the study met its objectives.

## REFERENCES

- Achtenhagen, L., Naldi, L. & Melin, L. (2010). "Business growth" – do practitioners and scholars really talk about the same thing? *Entrepreneurship Theory and Practice*, 34(2).
- Adesola, S. & Baines, T. S. (2005). Developing and evaluating a methodology for business process improvement. *Business Process Management Journal*, Vol. 11 No. 1, pp. 37-46.
- Alter, S. (2008). Defining information systems as work systems: implications for the IS field. *European Journal of Information Systems*. 17, 448-469.
- Andriani, M., Samadhi, T. A., Siswanto, J. & Suryadi, K. (2018). Aligning business process maturity level with SMEs growth in Indonesian fashion industry. *International Journal of Organizational Analysis*. 26(4), 709-727.
- Arasti, Z., Zandi, F. & Bahmani, N. (2014). Business failure factors in Iranian SMEs: Do successful and unsuccessful entrepreneurs have different viewpoints? *Journal of Global Entrepreneurship Research*, 4, 1-14.
- Autio, E. (2017). Digitalisation, Ecosystems, Entrepreneurship and Policy. Perspectives into Topical Issues Is Society and Ways to Support Political Decision Making. *Government's Analysis, Research and Assessment Activities Policy Brief*, 20.
- Baiyere, A., Salmela, H. & Tapanainen, T. (2020). Digital transformation and the new logics of business process management. *European journal of information systems VOL. 29, NO. 3*, 238-259.
- Barua, A., Konana, P., Whinston, A. & Yin, F. (2004). An empirical investigation of net-enabled business value. *MIS Quarterly*, 28(4), 585-614.
- Becker, J., Knackstedt, R. & Pöppelbuß, J. (2009). Developing Maturity Models for IT Management – A Procedure Model and its Application. *Business & Information Systems Engineering (BISE)*, 1 (3), pp. 213-222.
- Bi, R., Davison, R. M. & Smyrnios, K. X. (2017). E-business and fast growth SMEs. *Small Business Economics*, 48:559-576.
- Bianchini, S., Bottazzi, G. & Tamagni, F. (2017). What does (not) characterize persistent corporate high-growth? *Small Business Economics*, 48(3), 633-656.
- Bravo-Biosca, A., Criscuolo, C. & Menon, C. (2016). What drives the dynamics of business growth? *Economic Policy*, 31(88), 703-742.

- Bruno, G., Dengler, F., Jennings, B., Khalaf, R., Nurcan, S., Prilla, M., Sarini, M., Schmidt, R. & Silva, R. (2011). Key challenges for enabling agile BPM with social software. *Journal of software maintenance and evolution: research and practice* 23(4): 297–326.
- Cassetta, E., Monarca, U., Dileo, I., De Berardino, C. & Pini, M. (2020). The relationship between digital technologies and internationalisation. Evidence from Italian SMEs. *Industry and Innovation* 27(4).
- Cerrato, D., Crosato, L. & Depperu, D. (2016). Archetypes of SME internationalization: A configurational approach. *International Business Review*, 25, 286–295.
- Coad, A., Daunfeldt, S.-O., Hözl, W., Johansson, D. & Nightingale, P. (2014). High-growth firms: introduction to the special section. *Industrial and Corporate Change*, 23(1), 91–112.
- Daunfeldt, S.-O. & Halvarsson, D. (2015). Are high-growth firms one-hit wonders? Evidence from Sweden. *Small Business Economics*, 44(2), 361–383.
- de Bruin, T., Freeze, R., Kulkarni, U. & Rosemann, M. (2005). Understanding the main phases of developing a maturity assessment model. In *Proceedings of the 16<sup>th</sup> Australasian Conference on Information Systems*, Nov. 29 - Dec. 2. University of Technology, Sydney, Australia.
- Delmar, F., Davidsson, P. & Gartner, W. B. (2003). Arriving at the high-growth firm. *Journal of Business Venturing*, 18(2), 189–216.
- Denner, M.-S., Püschel, L. C. & Röglinger, M. (2018). How to Exploit the Digitalization Potential of Business Processes. *Business Infrastructure System Engineering*, 60(4), pp. 331–34
- Dethine, B., Enjolras, M. & Monticolo, D. (2020). Digitalization and SMEs' Export Management: Impacts on Resources and Capabilities. *Technology Innovation Management Review Volume 10, Issue 4*.
- Dillen, Y., Laveren, E., Martens, R., De Vocht, S. & Van Imschoot, E. (2014). Growth persistence and profile robustness of high-growth firms. *International Journal of Entrepreneurial Venturing*, 6(4), 299–330.
- Du, J. & Temouri, Y. (2015). High-growth firms and productivity: evidence from the United Kingdom. *Small Business Economics*, 44(1), 123–143.
- Dumas, M., La Rosa, M., Mendling, J. & Reijers, H.A. (2013). *Fundamentals of Business Process Management*. Springer, Heidelberg.

- Durmaz, Y. & Ilhan, A. (2015). Growth Strategies in Businesses and a Theoretical Approach. *International Journal of Business and Management*, 10(4): 210-214.
- Eurostat-OECD (2007). Eurostat-OECD Manual on Business Demography Statistics. Office for Official Publications of the European Communities: Luxembourg.
- Fischer, M., Imgrun, F., Janiesch, C. & Winkelmann, A. (2020). Strategy archetypes for digital transformation: Defining meta objectives using business process management. *Information & Management*, 57, issue 5.
- Gabrielsson, J., Dahlstrand, A. L. & Politis, D. (2014). Sustainable high-growth entrepreneurship: a study of rapidly growing firms in the Scania region. *The International Journal of Entrepreneurship and Innovation*, 15(1), 29-40.
- Gabryelczyk, R., Biernikowicz, A. & Sipior, J. C. (2020). BPM motivations framework for digital challenges: lessons learned from customer use cases. *Procedia Computer Science*, 176, 3133-3142.
- García-Moreno, M. B., García-Moreno, S., Nájera-Sánchez, J. J. & De Pables-Heredero, C. (2016). An explanatory Model of the Organisational Factors that Explain the Adoption of E-business. *Journal of Industrial Engineering and Management* 9(2): 547-581.
- Gregor, S. & Hevner, A. R. (2013). Positioning and Presenting Design Science Research for Maximum Impact. *MIS Quarterly*, Vol. 37, No. 2, pp. 337-355.
- Greiner, L. E. (1998). Evolution and Revolution as Organizations Grow. *Harvard Business Review*, May-June.
- Hammer, M. (2015). What is Business Process Management? In J. vom Brocke, M. Rosemann (2nd ed.), *Handbook on Business Process Management 1. Introduction, Methods, and Information Systems. Series: International Handbooks on Information Systems*, pp. 3-16. Springer International Publishing.
- Henrekson, M. & Johansson, D. (2010). Gazelles as job creators: a survey and interpretation of the evidence. *Small Business Economics*, 35(2), 227-244.
- Hevner, A. & Chatterjee, S. (2010). Design Research in Information Systems. London: Springer New York Dordrecht Heidelberg.
- Hevner, A. R., March, S. T., Park, J. & Ram, S. (2004). Design research in information systems research. *MIS Quarterly*, Vol. 28, No. 1, pp. 75-105.



- Hervé, A., Schmitt, C. & Baldegger, R. (2020a). Digitalization, Entrepreneurial Orientation and Internationalization of Micro-, Small- and Medium-Sized Enterprises. *Technology Innovation Management Review Volume 10, Issue 4*.
- Hervé, A., Schmitt, C. & Baldegger, R. (2020b). Internationalization and Digitalization: Applying digital technologies to the internationalization process of small and medium-sized enterprises. *Technology Innovation Management Review Volume 10, Issue 7*.
- Imgrund, F. & Janiesch, C. (2020). Understanding the Need for New Perspectives on BPM in the Digital Age: An Empirical Analysis. *Business Process Management Workshops*, pp. 288-300.
- Johanson, J. & Vahlne, J.-E. (1977). The internationalization process of the firm – A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8, 23-32.
- Johanson, J. & Vahlne, J.-E. (2009). The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *Journal of International Business Studies*, 40(9), 1411-1431.
- Kasvu Open (2020). Accessed on 26.11.2020  
[https://issuu.com/kasvuopen/docs/kasvuopen\\_tyokirja2020\\_b5\\_issuu](https://issuu.com/kasvuopen/docs/kasvuopen_tyokirja2020_b5_issuu)
- Kim, H. D., Lee, I. & Lee, C. K. (2011). Building Web 2.0 enterprises: A study of small and medium enterprises in the United States. *International Small Business Journal* 31(2): 156-174.
- Kirchmer, M. (2015). Management of Process Excellence. In J. vom Brocke, M. Rosemann (2nd ed.), *Handbook on Business Process Management 2: International Handbook on Information Systems* (pp. 79-99). Springer International Publishing.
- Kohlborn, T., Mueller, O., Poepelbuss, J. & Roeglinger, M. (2014). Interview with Michael Rosemann on Ambidextrous Business Process Management. *Business Process Mgmt Journal* 20(4), 634-638.
- Kröschel, I. (2010). On the notion of context for business process use. *Proceedings of International Symposium on Services Science (ISSS) and Business Process and Services Computing (BPSC)*, 288-297.
- Kuivalainen, O., Puumalainen, K., Sintonen, S. & Kyläheiko, K. (2010). Organisational capabilities and internationalisation of the small and medium-sized information and communications technology firms. *Journal of International Entrepreneurship*, Vol. 8 No. 2, pp. 135-55.
- Kuivalainen, O., Saarenketo, S. & Puumalainen, K. (2012). Start-up patterns of internationalization: a framework and its application in the context of

knowledge-intensive SMEs. *European Management Journal*, Vol. 30 No. 4, pp. 372-85.

- Lasrado, L.A., Vatrapu, R. & Andersen, K. N. (2015). Maturity Models Development In Is Research: A Literature Review. *IRIS Selected Papers of the Information Systems Research Seminar in Scandinavia*, Vol. 6.
- Legner, C, Eymann, T., Hess, T., Matt, C., Böhmman, T., Drews, P., Mädche, A., Urbach, N. & Ahlemann, F. (2017). Digitalization: Opportunity and Challenge for the Business and Information Systems Engineering Community. *Business Infrastructure System Engineering*, 59(4), pp. 301-308.
- Lindsay, A., Downs, D. & Lunn, K. (2003). Business processes - attempts to find a definition. *Information and Software Technology*, 45, 1015-1019.
- Liu, L., Li, W., Aljohani, N. R., Lytras, M. D., Hassan, S-U. & Nawaz, R. (2020). A framework to evaluate the interoperability of information systems - Measuring the maturity of the business process alignment. *International Journal of Information Management* 54.
- Lockett, A., Wiklund, J., Davidsson, P. & Girma, S. (2011). Organic and acquisitive growth: Re-examining, testing and extending penrose's growth theory. *Journal of Management Studies*, 48(1), pp. 48-74.
- Maier, A. M., Moultrie, J. & Clarkson, P. J. (2012). Assessing Organizational Capabilities: Reviewing and Guiding the Development of Maturity Grids. *IEEE Transactions on Engineering Management*, 59(1).
- Malinova, M. & Mendling, J. (2018). Identifying do's and don'ts using the integrated business process management framework. *Business Process Management Journal*, vol. 24, no. 4, pp. 882-899.
- McKelvie, A. & Wiklund, J. 2010. Advancing firm growth research: a focus on growth mode instead of growth rate. *Entrepreneurship Theory and Practice* 34: 261-288.
- Melão, N. & Pidd, M. (2000). A conceptual framework for understanding business processes and business process modelling. *Information Systems Journal*, 10, 105-129.
- Monteiro, G. F. A. 2019. High-growth firms and scaleups: a review and research agenda. *RAUSP Management Journal*, 54(1): 96-111.
- Morgan-Thomas, A. (2016). Rethinking technology in the SME context: Affordances, practices and ICTs. *International Small Business Journal* Vol. 34(8), 1122-1136.

- Myers, M. D. & Newman, M. (2007). The qualitative interview in IS research: Examining the craft. *Information and Organization*, 17(1), 2-26.
- Nambisan, S. (2017). Digital Entrepreneurship: Toward a Digital Technology Perspective of Entrepreneurship. *Entrepreneurship theory and practice*.
- Nummela, N., Puumalainen, K. & Saarenketo, S. (2005). International growth orientation of knowledge-intensive SMEs. *Journal of International Entrepreneurship*, Vol. 3 No. 1, pp. 5-18.
- OECD (2017). Enhancing the contributions of SMEs in a global and digital economy.
- Offermann, P., Levina, O., Schönherr, M. & Bub, U. (2009). Outline of a Design Science Research Process. In *Proceedings of the 4th International Conference on Design Science Research in Information Systems and Technologies*, Article 7, pp. 1-11.
- Olejnik, E. & Swoboda, B. (2012). SMEs' internationalisation patterns: descriptives, dynamics and determinants. *International Marketing Review* Vol. 29 No. 5, pp. 466-495.
- Oxford University Press (2004). Oxford English Dictionary: The Definitive Record of the English Language.
- Parker, S. C., Storey, D. J. & Van Witteloostuijn, A. (2010). What happens to gazelles? The importance of dynamic management strategy. *Small Business Economics*, 35(2), 203-226.
- Peffer, K., Tuunanen, T., Rothenberger, M. A. & Chatterjee, S. (2007). A Design Science Research Methodology for Information Systems Research. *Journal of Management Information Systems*, 24:3, 45-77.
- Penrose, E.T. (1959). *The theory of the growth of the firm* (4rd ed). New York: Oxford University Press.
- Pergelova, A., Manolova, T., Simeonova-Ganeva, R. & Yordanova, D. (2019). Democratizing Entrepreneurship? Digital Technologies and the Internationalization of Female - Led SMEs. *Journal of Small Business Management*, Volume 57, Issue 1.
- Pries-Heje, J. & Baskerville, R. (2008). The Design Theory Nexus. *MIS Quarterly*, Dec., 2008, Vol. 32, No. 4, pp. 731-755.
- Pöppelbuß, J. & Röglinger, M. (2011). What makes a useful maturity model? A framework of general design principles for maturity models and its demonstration in business process management. *ECIS 2011 Proceedings*. 28.

- Rosemann, M. (2014). Proposals for future BPM research directions. *Proceedings of the 2nd Asia Pacific Business Process Management Conference*, 1–15.
- Rosemann, M. & de Bruin, T. (2005). Towards a business process management maturity model. *Proceedings of the 13th European Conference on Information Systems*.
- Rosemann, M. & vom Brocke, J. (2015). The Six Core Elements of Business Process Management. In J. vom Brocke, M. Rosemann (2nd ed.), *Handbook on Business Process Management 1. Introduction, Methods, and Information Systems. Series: International Handbooks on Information Systems* (pp. 105-122). Springer International Publishing.
- Rosemann, M., de Bruin, T. & Hueffner, T. (2004). A Model for Business Process Management Maturity. *ACIS 2004 proceedings. Paper 6*.
- Röglinger, M., Pöppelbuß, J. & Becker, J. (2012). Maturity models in business process management. *Business Process Management Journal* Vol. 18 No. 2, pp. 328-346.
- Sambamurthy, V., Bharadwaj, A. & Grover, V. (2003). Shaping agility through digital Options: reconceptualizing the role of information technology in contemporary firms. *MIS Quarterly*, 27(2), 237-263.
- Scheer, A-W. & Hoffmann, M. (2015). The Process of Business Process Management. In J. vom Brocke, M. Rosemann (2nd ed.), *Handbook on Business Process Management 2: International Handbook on Information Systems* (pp. 351-380). Springer International Publishing.
- Schmitt, C. & Baldegger, R. (2020). Digitalization and Internationalization. *Technology Innovation Management Review* Volume 10, Issue 4.
- Senderovitz, M., Klyver, K. & Steffens, P. (2016). Four years on: are the gazelles still running? A longitudinal study of firm performance after a period of rapid growth. *International Small Business Journal*, 34(4), 391–411.
- Sharp, A. & McDermott, P. (2008). *Workflow Modeling: Tools for Process Improvement and Application Development*. Artech House.
- Skrinjar, R. & Trkman, P. (2013). Increasing process orientation with business process management: Critical practices'. *International Journal of Information Management* 33, 48– 60.
- Skudiene, V., Auruskeviciene, V. & Sukeviciute, L. (2015). Internationalization model revisited: e-marketing approach. *Procedia - Social and Behavioral Sciences*, 213, pp. 918 – 924.

- Spanyi, A. (2015). The Governance of Business Process Management. In J. vom Brocke, M. Rosemann (2nd ed.), *Handbook on Business Process Management 2: International Handbook on Information Systems* (pp. 333-349). Springer International Publishing.
- Strnadl, C. F. (2006). Aligning business and it: The process-driven architecture model. *Information Systems Management*, 23(4), 67-77.
- Tilson, D., Lyytinen, K. & Sørensen, C. (2010). Digital infrastructures: The missing IS research agenda. *Information Systems Research*, 21(4), 748-759.
- Trkman, P. (2010). The critical success factors of business process management. *International journal of information management*, 30(2), 125-134.
- Upton, N., Teal, E. J. & Felan, J. T. (2001). Strategic and business planning practices of fast growth family firms. *Journal of Small Business Management*, 39(1), 60-72.
- van der Aalst, W.M.P., ter Hofstede, A.H.M. & Weske, M. (2003). Business process management: a survey. *International Conference on Business Process Management (BPM 2003)*. June 26-27, Berlin.
- Verhoef, P. C. & Bijmolt, T. H. A. (2019). Marketing perspectives on digital business models: A framework and overview of the special issue. *International Journal of Research in Marketing*, 36(3): 341-349.
- vom Brocke, J., Schmiedel, T., Recker, J., Trkman, P., Mertens, W. & Viaene, S. (2014). Ten principles of good business process management. *Business Process Management Journal*, 20(4), 530-548.
- vom Brocke, J., Zelt, S. & Schmiedel, T. (2016). On the role of context in business process management. *International Journal of Information Management* 36, 486-495.
- Westerlund, M. 2020. Digitalization, Internationalization and Scaling of Online SMEs. *Technology Innovation Management Review*, 10(4): 48-57.
- Wittkop, A., Zulauf, K. & Wagner, R. (2018). How digitalization changes the internationalization of entrepreneurial firms: theoretical considerations and empirical evidence. *Management Dynamics in the Knowledge Economy*, 6(2): 193-207.
- Yrittajat.fi (2020). Accessed on 26.11.2020 <https://www.yrittajat.fi/suomen-yrittajat/yrittajyys-suomessa-316363>.
- Zhu, K., Kraemer, K.L. & Xu, S. (2006). The process of innovation assimilation by firms in different countries: A technology diffusion perspective on e-business. *Management Science*, 52(10), 1557-1576.

## APPENDIX 1 STRUCTURE OF THE MODEL

The model consists of four worksheets, the international process model, maturity assessment, visual, and rating scales descriptions.

Date					
Enabling growth through internationalization					
Activity	Steps	Actor	Output	Supportive questions	Notes
<b>Activity 1:</b>		Process participants	General view of the current situation and the to-be state	<a href="#">See Maturity Assessment worksheet</a>	
<b>Process identification</b>	1.1 Identify the current situation	Employees Customers			
	1.2 Define the area to be resolved by identifying the	Partners			
<b>Activity 2:</b>					
<b>Process analysis</b>	2.1 Identify current issues/opportunities 2.2 Identify performance measures	Process participants	Prioritized list	Have we met our international market share objective? Have we achieved the turnover objective we set for Are we satisfied with our success in the international market? What is the percentage of foreign customers and foreign partners?	
	2.3 List the issues/opportunities in				
<b>Activity 3:</b>					
<b>Process improvement</b>	3.1 Prioritize the changes that can resolve the issues against performance measures 3.2 Select the best solution	Process participants	To-be process model	What are the main tasks needed? What is the desired outcome? Who is involved in the process? What is the value given to customers?	
<b>Activity 4:</b>					
<b>Process implementation</b>	4.1 Assess technology options 4.2 Select suitable technologies	People who will use them should be involved Technology experts	List of suitable technologies	What technologies are in use? Are those integrated with other technologies in use? ICT resources: cloud services, data analytics, mobile apps. Software: CRM, ERP, accounting, office, design, payment, web Enabling technologies for networking: website, social networking sites (e.g. Facebook, LinkedIn), matchmaking tools (e.g. Brelia), events&expo platforms etc. Enabling technologies for information sharing: podcast, blog, social networking, Twitter, telco platforms etc. Enabling technologies for collaborating: wikis, blog, open source software, social networking, Twitter, telco platforms etc. What new technologies are available (external insights such as Gartner Hype Cycle for Emerging Technologies can be used)?	
<b>Activity 5:</b>					
<b>Process monitoring and controlling</b>	5.1 Analyze the process based on the performance measures 5.2 List new issues/opportunities that have appeared which need to be	Process participants	Assessment of the performance of the process, List of new issues/opportunities		

FIGURE 10 International process worksheet of the model

AREA	SUB-AREA	SUPPORTIVE QUESTIONS			
<b>Business in international context</b>					
	Year of foundation	When was the company founded?			
	Turnover (thousand EUR)	What is the total turnover (EUR)?			
	Turnover from exports (thousand EUR)	How much does current exports generate annual turnover (EUR)?			
	Industry	Do we offer products or services or both to the market?			
	Goal focus	Specify main focus. Do we want to improve something on the existing market process or do we want to expand to a new market or focus on networking?			
	Scope	Is the process internal or between organizations?			
	Number of employees	What is the total number of employees?			
	Size of the international team	What is the size of our international team who actively promotes international activities?			
	Funding of international activities	Are the international activities funded with internal funds (using the profits from ongoing business operations) or external funding (subsidies, loans)?			
			Please select from the list (from None to High or N/A) the suitable option for current as well as desired state. See Rating Scale Description for more info.		
			<b>Current</b>	<b>Desired</b>	<b>Set priority</b>
<b>Business -&gt; Employees</b>					
	International mindset	Do we encourage employees' international orientation?			
	International experience	Do we see all cultures similar? Do we know the local language to understand the nuances of meaning?			
	Branding and communication	How do we want to be perceived? How is that communicated? Are we consistent with our message?			
	ICT resources	Do we have the needed technology and know-how? Do the employees need training to use needed technologies or raise awareness regarding cybersecurity practices?			
	Digitalization level	To what extent are day-to-day business activities (e.g. sales, customer service, new customer acquisition) done digitally?			
	Cybersecurity resilience	Do we have guidelines regarding cybersecurity? Are our systems and website up-to-date?			
<b>Business -&gt; Service/Product</b>					
	Service/product readiness	Are the service/product scalable or does it need modification (service/product adaptation)?			
	Production readiness	Do we have the needed capacity to produce the service/product?			
	Legal aspect	Do we have the needed documentation in order?			
	Unique selling point	What are the factors that differentiates our service/product from its competitors? What are the sales arguments?			
	Pricing aspect	How is the service/product priced?			
	Implementation	Can the installation/deployment/customer service etc. be accomplished in international context?			
<b>Business -&gt;</b>					

FIGURE 11 Maturity assessment worksheet of the model

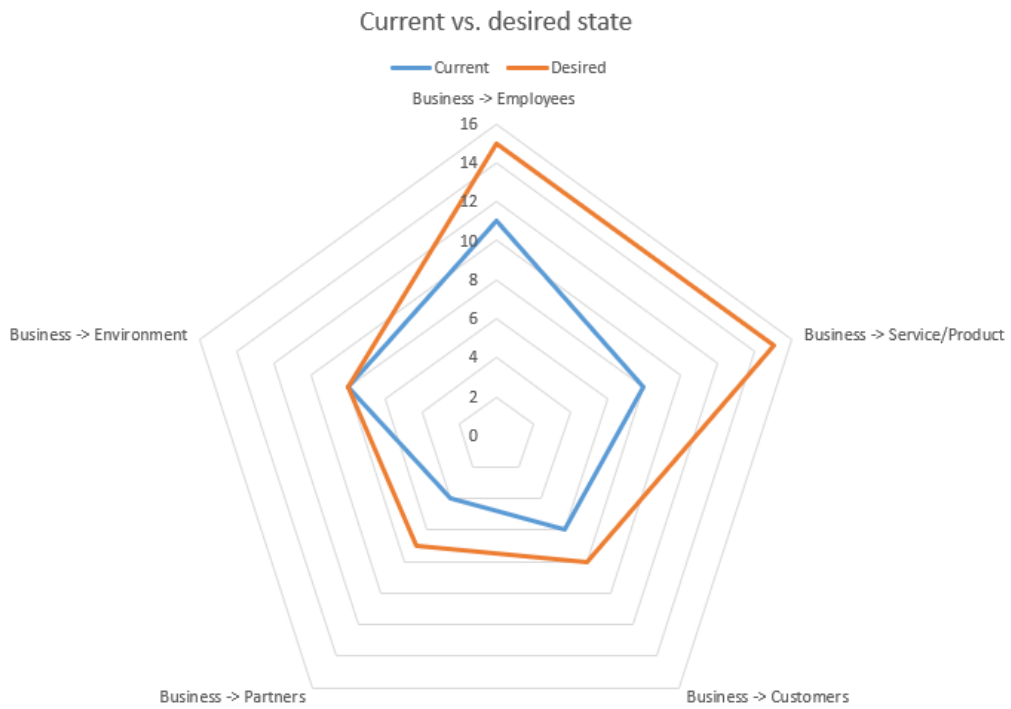


FIGURE 12 Visual representation worksheet

Maturity Levels	Descriptions
0 N/A	Not applicable
0 None	No practices are being performed
1 Low	Some practices are planned and performed
2 Moderate	Practices are performed based on plans Practices are more complete or advanced than in Low level
3 High	Practices are performed based on plans and reviewed periodically Employees have required skills and knowledge to perform the practices Practices are more complete or advanced than in Moderate level

FIGURE 13 Rating Scale Descriptions worksheet



## APPENDIX 2 SUPPORTIVE QUESTIONS FOR EACH SUB-AREA OF THE MATURITY MODEL

Dimension	The initial supportive questions	Added supportive questions after iteration
Business in international context	<p>Goal focus: Do we want to improve something on the existing market process or do we want to expand to a new market?</p> <p>Scope: Is the process internal or between organizations?</p> <p>Industry: Do we offer products or services or both to the market?</p> <p>Scale: Are they scalable or need modification (product/service adaptation)?</p> <p>Size of the international team: What is the size of our international team who actively promotes international activities?</p>	<p>Year of foundation: When was the company founded?</p> <p>Turnover: What is the total turnover (EUR)?</p> <p>Turnover from exports: How much does current exports generate annual turnover (EUR)?</p> <p><del>Scale: Are they scalable or need modification (product/service adaptation)?</del></p> <p>Number of employees: What is the total number of employees?</p> <p>Funding of international activities: Are the international activities funded with internal funds (using the profits from ongoing business operations) or external funding (subsidies, loans)?</p>
Employees	<p>International mindset: Do we encourage employees' international orientation?</p> <p>International experience: Do we see all cultures similar? Do we know the local language to understand the nuances of meaning?</p> <p>ICT resources: Do we have the needed technology and know-how?</p> <p>ICT resources: Do the employees need training to use needed technologies or raise awareness regarding cybersecurity practices?</p> <p>Digitalization level: To what extent are day-to-day business activities (e.g., sales, customer service, new customer acquisition) done digitally?</p> <p>Cybersecurity resilience: Do we have guidelines regarding cybersecurity? Are our systems and website up-to-date?</p>	<p>Branding and communication: How do we want to be perceived? How is that communicated? Are we consistent with our message?</p>
Service/Product	[did not exist in the initial model]	Service/product readiness: Are the service/product scalable or does it need modification (service/product adaptation)?

		<p>Production readiness: Do we have the needed capacity to produce the service/product?</p> <p>Legal aspect: Do we have the needed documentation in order?</p> <p>Unique selling point: What are the factors that differentiates our service/product from its competitors? What are the sales arguments?</p> <p>Pricing aspect: How is the service/product priced?</p> <p>Implementation: Can the installation/deployment/customer service etc. be accomplished in an international context?</p>
Customers	<p>Customer relationships: Do we know the customer process (what triggers the need from the customer side etc.)?</p> <p>Customer relationships: Do we know what technologies are in use (Twitter, WhatsApp, WeChat etc.) by customers?</p> <p>Customer relationships: Are customer needs similar worldwide?</p> <p>Customer relationships: Do we have CRM in use? Do employees know how to use it? Is it integrated with marketing tools?</p> <p>Customer relationships: Can customers give feedback? Is it made easy?</p> <p>Online presence (website): Is our website easy to use with all devices? Are all features (ordering, booking, payment) secure, easy to find and easy to use?</p> <p>Online presence (website): Is analytics used to track website traffic?</p> <p>Online presence (website): How many clicks are needed to find the contact information?</p> <p>Online presence (website): Do we have the needed language versions of our website? Are these regularly updated?</p> <p>Online presence (social media): Are we active in social media? In how many channels? How often?</p>	<p>Customer relationships: Do we know what technologies are in use (Twitter, WhatsApp, WeChat, <i>telco platforms</i>, <i>events&amp;expo platforms</i> etc.) by customers?</p>
Partners	<p>Partner networks: What are the channels to use to find and collaborate with existing and new</p>	<p>Partner management: How well and efficiently the partner network operates? How is the partner management</p>

	<p>partners?</p> <p>Partner networks: Are the systems used for collaboration in sync?</p> <p>Partner networks: Do the partners need training to use needed technologies?</p> <p>Number of foreign partners: Do we have the right contacts? Do we have enough partners?</p> <p>Collaboration with opinion leaders: Are opinion leaders identified and cooperation possibilities sought?</p>	<p>done?</p> <p>Number of foreign partners: Do we have the right <i>partners</i>? Do we have enough partners?</p>
Environment	<p>Market information availability: Can we find/have access to needed market information?</p> <p>Distance and location: Do we believe that geographic distances are problematic?</p> <p>Country risk/demand uncertainty: How is the country risk (financial, political etc.)? How certain is the demand?</p> <p>Market size and growth: What is the market size and its growth possibilities?</p> <p>Level of competition: What is the level of competition? Who are the competitors? How is the pricing?</p> <p>Number of foreign markets: How is the number of markets in relation to our resources?</p> <p>Number of sales channels: Do we sell directly or through distributors?</p>	<p>Country risk/demand uncertainty: How is the country risk (financial, political etc.)? How certain is the demand? <i>Legislation and certification?</i> <i>Country related taxes?</i></p>

## APPENDIX 3 EVALUATION OF THE MODEL

### Summary of the interviews with experts

#### Kokemus kv-toiminnasta (vuosina)?

Expert 1: yli 15 vuotta

Expert 2: yli 5 vuotta

Expert 3: yli 20 vuotta

Expert 4: yli 20 vuotta

Expert 5: yli 8 vuotta

#### Miten kuvailisit rooliasi kv-asiiantuntijana?

Expert 1: Monipuolinen rooli, projektien vetovastuu, ollut mukana toteuttamassa yli 500 projektia yli 30 markkina-alueella, projektit viennin alkumetreistä laajentamisvaiheeseen.

Expert 2: Kv-kauppa markkinoinnin ja viestinnän näkökulmasta.

Expert 3: Uusiasiakashankinta ja yritysten vientitoiminnan kehittäminen. Tehnyt vientikauppaa yli 60 maahan, jokaisella mantereella.

Expert 4: Auttaa suomalaisia pk-yrityksiä maailmalle. Ollut Kasvu Openissa kumppanina mukana monta vuotta sparraajan roolissa. Kokemusta viennistä niin isossa että pienessä yrityksessä sekä yrittäjän roolissa, joissa vienti ja kv-toiminta ollut arkipäivää.

Expert 5: Digitaalisten työkalujen kehittäminen. On toiminut kv-yhteyshenkilönä ja ollut mukana kehittämässä kv-verkostoja.

#### Onko käytössä työkaluja kv-toiminnan kehittämiseksi? Jos kyllä, niin millaisia?

Yritys 1: Käytössä lomakkeita, joilla kerätään taustatietoa. Työkaluna toimii keskustelu, jolla käydään tietyt asiat läpi ja analysoidaan tilanne.

Yritys 2: Sähköisiä työkaluja ei ole, mutta toki omia kyselylomakkeita on olemassa, jotka käydään yleensä aloittavien yritysten kanssa läpi.

#### Miten tärkeinä näet mallin eri osa-alueet ja niihin liittyvät tukikysymykset Puuttuuko jotain?

- Tukikysymyksissä (asiakassuhteet) B2B voitaisiin ottaa paremmin huomioon, lisätä esim. telco platforms, events platforms tai matchmaking tools.
- Itsessään tuote ja tuotanto tärkeä ottaa huomioon kv-kontekstissa, mm. tuotteen/palvelun kv-valmius, tuotantovalmius, kapasiteetti, pakkausmateriaalit, laki, kilpailuetu, hinta, toteutus.
- Tuotteeseen tai palveluun liittyvät asiat pitää modata sopivaksi kv-markkinalle.

- Tukikysymyksissä (Country risk/demand uncertainty) olisi hyvä olla legislation and certification, taxes.
- Partnereihin liittyen voisi lisätä kysymyksen oikeanlaisista partnereista.
- Resurssien näkökulmasta pitäisi olla myös rahalliset resurssit toimia. Rahoitus voitaisiin ottaa mukaan, että tiedetään, rahoitetaanko kansainvälinen kasvu kassalla vai jollain tuella vai lainarahalla. Yritysten tulisi miettiä tätä puolta ennen kuin lähtevät suunnitelmien kanssa eteenpäin.
- Resurssien lisäksi myös kilpailuedun tunnistaminen on tärkeää.
- Yrityksen imagoasiaa voisi ehkä myös miettiä ja tuoda enemmän esille, kommunikaatio ja brändäys ja miten ne tuodaan esille. Voi olla, että yrityksellä on mahtavia tuotteita ja loistava osaaminen, mutta yritysviestintä kotisivuilla ja markkinointimatsku ei oikein vastaa kuvaa kansainvälisestä toimijasta tai halusta tulla kansainväliseksi toimijaksi. Tuote/palvelu ratkaisee -ajattelu on vielä hyvin yleistä Suomessa, mutta kylä kokonaisuus ratkaisee. Asiakas haluaa tietää, minkälaisesta firmasta on kyse, luodaan ensin mielikuva siitä, miten asiat hoidetaan, esimerkiksi miten henkilöstöasiat on hoidettu, yrityksen pehmeistä arvoista ja pitkän linjan strategiasta, jonka jälkeen mennään tutustumaan tuotteisiin ja palveluihin.
- Viestintä ja brändäys on tärkeää, mutta tahtoo jäädä muun konkreettisemmän jalkoihin.
- Mallin kysymyksien pohjalta malli sopisi enemmän yrityksille, joilla on vakaa liiketoiminta ja ovat olleet toiminnassa jo pidempään, eikä niinkään nuorille yrityksille tai startup vaiheeseen. Startupille parasta tässä kuitenkin on se, että saavat dataa, jotta pystyvät vertaamaan itseään muuhun joukkoon, jotka ovat toimineet kv-markkinoilla.
- Malli voisi auttaa startup vaiheen yrityksiä hahmottamaan tarpeellisia toimenpiteitä ja peilaamaan itseään muuhun joukkoon, jotka ovat jo tehneet toimenpiteitä.
- Kysymyksiä varmasti voi keksiä enemmän ja enemmän, mutta mallia pitäisi lähteä käymään läpi yritysten kanssa ja sitä kautta saada palautetta niin tiedetään, mikä on oleellista ja mikä ei.

### **Onko jotain liikaa?**

- Ei tässä vaiheessa

### **Mikä on mallissa hyvää?**

- Käyttökelpoinen malli
- Kaikki osa-alueet hyvin huomioitu tässä vaiheessa. Hyviä kysymyksiä, jotka laittaa yritykset miettimään asioita mitä tulee huomioida, esimerkiksi minkä tyyppisiä teknisiä työkaluja on käytössä ja pitäisikö niitä olla.
- On hyvä, että asioita, kuten "international experience" ja "international mindset", on mietitty.

**Mikä huonoa?**

- Ei tässä vaiheessa havaita mitään huonoa

**Parannusehdotuksia**

- Eri ulottuvuuksilla voisi olla eri painotukset esim. toimialan mukaan
- Yrityksen imagoon liittyviä asioita olisi hyvä nostaa vielä esille
- Selviää käytössä

**Uskotko että malli toimisi käytännössä?**

- On käyttö- ja kehityskelpoinen malli
- Uskon, että voi toimia käytännössä

**Uskotko mallin olevan hyödyllinen?**

- On hyödyllinen, helppo ja interaktiivinen tapa kokeilla esim. mikä yrityksen kv-potentiaali on.
- Hyvä kokonaisuus, jonka hyödyllisyys selviää käytössä, mutta uskon että mallista voi olla isokin hyöty yrityksille. Kun yritykset käyttävät mallia ja dataa kertyy, niin hyödyllisyys syntyy kerätystä vertailukelpoisesta datasta, jonka perusteella voidaan määritellä mitä pärjäämiseen tarvitaan.

**Muita huomioita?**

- Hyvä aihio jatkokehitykselle
- Yritykset voisivat hyötyä tällaisista malleista, jos niitä olisi tarjolla
- Kiva että tämän tyyppisiä työkaluja tulisi enemmänkin käyttöön. On tärkeää, että päätökset tehtäisiin jonkin datan perusteella. Mallin avulla kerätty data on hyödyllistä yrityksille.
- Perustiedot voisi vielä lisätä mallin alkuun, esim. kuinka pitkään on ollut toiminnassa, liikevaihto, henkilöstömäärä. Antaa vertailukelpoista dataa.

## Summary of the comments and improvement suggestion from the growth companies

### Kommentteja/parannusehdotuksia?

- Se, että Excelissä pitää siirtyä eri välilehdille saadakseen lisäinformaatiota ja tekstiä on paljon ei ole käytettävyyden näkökulmasta paras vaihtoehto ja sitä voisi parantaa.
- Käytettävyyden näkökulmasta apukysymykset voisi olla samalla välilehdellä maturity assessmentin kanssa, niin ei tarvitsisi hyppiä välilehtien välillä.
- Prioriteetteja voisi kehittää niin, ettei niitä kaikkia voi laittaa korkeimpaan prioriteettiin.
- Skaalautuvuutta voisi lisätä. Vastauskombinaatiossa, esim. high, high, high, voisi tuoda jatkokysymyksiä ja pyytää tarkennuksia, jotta saataisiin eroa eri osa-alueiden välille ja selviäisi akuutimmat osa-alueet, jotta tiedetään mihin pitäisi kiinnittää ensimmäisenä huomiota. Siinä tapauksessa, jos kaikki on jo korkeimmalla tasolla, niin siitä ei saa irti, että miten voisi lähteä parantamaan.
- Visuaalista puolta voisi parantaa, niin että näkee esim. mitä kolme asiaa on tärkeintä ja mitä pitäisi tehdä ja missä järjestyksessä, esim. jokaisesta osa-alueesta tulisi ABC-prioriteetilista, jonka avulla pääsisi näkemään valmiin listan asioista mitä pitää käytännössä tehdä.
- Käppyrät on aina plussaa.
- Mallin ohjeistuksessa kannattaa tuoda esille environment-kohdasta sitä ettei sitä voi oikein priorisoida.
- Esimerkiksi Environment kohdassa Distance and location, vähän epäselvää kumpi on high ja kumpi low eli jos ei ole väliä, minne myydään, niin onko se silloin high vai low.
- Goal focus voi jossain tapauksissa olla kaikki vaihtoehdot.
- Sales channel kohtaa voisi laajentaa ja lisätä myös kumppanien johtamisen ja ottaa esille kysymyksiä, miten hyvin ja tehokkaasti partneriverkosto operoi ja kuinka kumppanien johtaminen on toteutettu.
- Mielenkiintoisia kulmia, monia tuttuja asioita.
- Malli voisi toimia status tsekkauksena silloin tällöin.
- Nyt kun asioita on jo mietitty ja ehditty tekemään, niin oli helppo vastata, mutta kaksi vuotta sitten olisi vastauksien miettimiseen mennyt enemmän aikaa ja malli olisi voinut toimia vielä enemmän omien ajatusten selkeyttäjänä.
- Malli vaatii, että eri kohtia avataan.
- Hyvältä vaikuttaa, hyviä asioita kysytty ja joutuu miettimään relevantteja asioita.
- Hyvin kevyt harjoitus, josta oli kerätty asioita monesta näkökulmasta.