Journal of Business Research 145 (2022) 583–594

Contents lists available at ScienceDirect

Journal of Business Research

journal homepage: www.elsevier.com/locate/jbusres

Agile logic for SaaS implementation: Capitalizing on marketing automation software in a start-up

Joel Mero [a,*], Miira Leinonen [a], Hannu Makkonen [b], Heikki Karjaluoto [a]

[a] University of Jyväskylä, School of Business and Economics, PO Box 35, FIN-40014 University of Jyväskylä, Finland
[b] University of Vaasa, School of Marketing and Communication, PO Box 700, FIN-65101 Vaasa, Finland

ARTICLE INFO

Keywords:
Agile methodologies
Cloud computing
Marketing automation
Technology adoption
SME
Software-as-a-service

ABSTRACT

The emergence of Software-as-a-Service (SaaS) has facilitated agile technology implementation that focuses on iterative adaptations via learning by doing rather than the realization of a predesigned implementation plan. This study conceptualizes such an agile approach and explicates its operationalization via a four-year qualitative case study of a business-to-business (B2B) start-up firm's implementation of a HubSpot marketing automation (MA) SaaS. The study shows how agile implementation continuously introduces adaptations to SaaS features and organizational routines for improving their mutual fit given the organization's goals. The study also contributes to theory by offering a novel framework for managing agile implementation processes. The findings identify the key processes of sales lead management, content marketing, and customer intelligence through which start-up firms may capitalize on MA software.

1. Introduction

Software-as-a-Service (SaaS) is a cloud-based digital technology that offers ubiquitous access to an online service over the Internet (Cho & Chan, 2015). The rise of SaaS in today's technology landscape is evidenced by the growing volume and variety of available SaaS solutions (Brinker, 2020), the fast-growing user base of popular SaaS technologies (e.g., Zoom, Slack, Dropbox, Salesforce, and HubSpot), and shifts toward SaaS business models by many long-established software companies (e.g., Microsoft, Oracle, and SAP). Gartner (2020) forecasted that the global sales revenue of SaaS providers would exceed $140 billion (USD) in 2022 (up from $105 billion in 2020). More than 70% of North American companies have now implemented SaaS technologies, and most of the remaining companies are considering doing so (Computer Economics, 2019).

The growing popularity of SaaS technologies has been reinforced by characteristics that help organizations make quick adoption decisions. For example, the upfront cost of acquiring SaaS is often negligible because most providers operate on a subscription revenue model in which the provider charges a monthly fee, including a free trial period, for new customers (Venkatachalam et al., 2014). Furthermore, the installation and set-up of SaaS are technically fast and easy (Siu, 2020). These characteristics distinguish the adoption of SaaS technologies from more traditional technologies because the perceived risk converts from the potential loss of invested capital to the potential loss of SaaS-related opportunities and delays in materializing the potential benefits they offer. For these reasons, organizations are encouraged to skip cautious evaluations and make swift adoption decisions to realize the underlying potential of SaaS technologies (Andriole, 2018; Brinker, 2019; Lee et al., 2013).

The swift adoption of SaaS changes the nature of the subsequent implementation process. The conventional perspective is that the implementation process is controlled by extensive pre-understanding regarding the technology-organization-environment (TOE) fit (Tornatzky & Fleischer, 1990). Given that cautious pre-evaluation is absent in the adoption of SaaS, understanding of the technology's fit to the organizational context arises from learning by doing as the implementation unfolds. Such agile software implementation processes are widely recognized in the managerial literature (e.g., Andriole, 2018; Brinker, 2019), but the theoretical conceptualizations are implicit and scattered among different perspectives, such as effectual reasoning (Mero et al., 2020), the behavioral approach (Makkonen et al., 2016), and organizational learning (Hart et al., 2004). All these studies demonstrate how the implementations are highly iterative adaptation

* Corresponding author.
E-mail addresses: joel.j.mero@jyu.fi (J. Mero), miira.leinonen@gmail.com (M. Leinonen), hannu.makkonen@uva.fi (H. Makkonen), heikki.karjaluoto@jyu.fi (H. Karjaluoto).

https://doi.org/10.1016/j.jbusres.2022.03.026
Received 13 October 2020; Received in revised form 7 March 2022; Accepted 10 March 2022
Available online 19 March 2022

processes that rely on learning by doing rather than linear blueprints; thus, they provide conceptual ways to describe agile logic as an alternative to the predesigned implementation approach. However, research that theorizes how organizations select the adaptations that are needed to facilitate implementation and how these adaptations are operationalized via the learning-by-doing approach is scant. Against this backdrop, this study proposes the following: (a) the selection of adaptations in the agile implementation of SaaS is informed by organizational goals as well as the perceived affordances and constraints of the technological and organizational context, and (b) the adaptations are operationalized via iterative matching of SaaS features with organizational routines, which follow a cyclical pattern of designing, testing, and configuring. Thus, the goal of the focal study is to conceptualize and illustrate such agile SaaS implementation processes.

To meet the stated goal, this study draws from the literature on SaaS implementation, agile methodologies, and the theory of affordances (Gibson, 1979) to conceptualize the agile implementation of SaaS. To illustrate this conceptualization, the study adopts a case research strategy with a focus on the longitudinal case of a start-up company that implemented HubSpot's marketing automation (MA) software. MA represents a typical SaaS solution that can be acquired without significant upfront investment; thus, it enables firms to make swift adoption decisions without excessive planning (Järvinen & Taiminen, 2016; Mero et al., 2020). The start-up context was selected because start-up firms are generally considered agile implementers of technology in their pursuit of fast business growth and scalability (Blank & Dorf, 2012; Ries, 2011). Therefore, the case research strategy and the chosen case context seemed appropriate for manifesting the agile logic of SaaS implementation.

This study contributes to SaaS implementation literature (e.g., Kim et al., 2017; Oliveira et al., 2019; Seethamraju, 2015) by conceptualizing agile logic for SaaS implementation and offering a framework for investigating agile implementation processes that are characterized by continuous adaptations to technological features and organizational routines. Such adaptations are recognized as a core part of the agile implementation approach (Makkonen et al., 2016; Mero et al., 2020; Paluch et al., 2020), but the basis on which the adaptations are selected remains unclear. We add to this knowledge by theorizing how organizations select which adaptations to technological features and organizational routines are needed to facilitate SaaS implementation. Furthermore, this study contributes to MA as a particular stream of SaaS literature (Järvinen & Taiminen, 2016; Mero et al., 2020) by identifying the key processes that a start-up organization needs to capitalize on MA affordances.

The study's structure is as follows: literature on the implementation of SaaS is first reviewed, followed by a description of the agile implementation of SaaS, presentation of the study's framework, justification for the data collection, and analysis of the study methods. Finally, we present the findings, explain the theoretical contributions and managerial implications, and conclude with a discussion on the study's limitations and avenues for future research.

2. Agile implementation of SaaS

2.1. SaaS as an object of implementation in start-ups

SaaS refers to a type of cloud computing service in which a service provider hosts, develops, manages, and delivers software via the Internet (Cho & Chan, 2015). By purchasing a license or subscribing to an SaaS application, a client receives on-demand access to the software in a self-service fashion that is independent of either a device or a location (Marston et al., 2011). The client organization does not need to use its own server space or install and maintain the software; upgrades and new features are available on an on-going basis (van de Weerd et al., 2016). Compared to on-premise software, using SaaS is "like getting power from the grid rather than one's own generator" (Yang et al., 2015, p. 254).

The SaaS literature has extensively investigated the reasons behind SaaS adoption decisions and contributed to our knowledge of factors that affect them (e.g., Oliveira et al., 2019; Kim et al., 2017; Wu et al., 2011). These contributions imply that the reasons for SaaS adoption largely fall into the categories of cost and convenience and the magnitude of potential gains. Karunagaran et al. (2019) found that small and medium-sized enterprises (SMEs) perceive greater cost and convenience benefits from the adoption of cloud services than large companies. Similarly, SaaS applications seem to be particularly attractive to start-up firms and SMEs because they require no upfront capital costs and provide ease of access, free trials, direct subscriptions, and automated upgrade cycles (Venkatachalam et al., 2014). Lee et al. (2013) reported that SMEs consider SaaS a rapid solution for filling gaps in information technology (IT) resources and capabilities. Furthermore, by having less of a legacy IT infrastructure and fewer ingrained attitudinal issues, SMEs are likely to be less burdened and more agile in adopting new types of cloud services (Marston et al., 2011). While SaaS may not always be the most cost-efficient approach for larger enterprises, the benefits that relate to the many SaaS alternatives available for prompt trials and rapid implementation offer a wider array of potential gains than traditional software packages (Tan et al., 2020).

The research on the implementation of SaaS applications is largely posited in the software implementation literature (e.g., Alsharari et al., 2020; Seethamraju, 2015) and focused on the implementation of extensive software, such as enterprise resource planning systems (i.e., software packages "that integrate information and information-based processes within and across functional areas in an organization" [Kumar & Van Hillegersberg, 2000, p. 23]). This research stream emphasizes the role of careful preplanning before making an adoption decision, which opens up an implementation process that executes the predesigned actions for attaining the TOE fit (Sia & Soh, 2007). Thus, a large share of software implementation research focuses on keeping the implementation process on the right track and proceeding as planned (Tan et al., 2020) by identifying critical success factors of the implementation (Finney & Corbett, 2007; Karim et al., 2007) and coordinating them via effective process execution (Al-Mudimigh et al., 2001). This branch of research lies largely in attempts to foresee the needed modifications for the organizational structure to fit a rigid off-the-shelf software package (Morton & Hu, 2008). Therefore, these studies articulate linear implementation process descriptions as tools to achieve the TOE fit (Orenga-Roglá & Chalmeta, 2019; Ke & Wei, 2008). Despite contributions to managing SaaS implementation processes, the focus on preplanning in this literature stream undermines its applicability to SaaS implementation processes, in which adoption decisions are driven by speed rather than precision, leading to a focus on capitalizing on software benefits by making fast and flexible adaptations on the basis of testing and continuous learning (Andriole, 2018).

To develop alternative perspectives for mainstream software implementation research, studies like those of Fichman and Moses (1999) and Tan et al. (2020) explicitly challenge the linear preplanning process to underline the need to hasten the implementation for faster release of the software's benefits. Similarly, Desouza et al. (2006), Pozzebon and Pinsonneault (2005), and Morton and Hu (2008) agreed that software should be implemented as a modifiable and configurable entity that expands the implementation process from a pure organizational adaptation to a parallel technology adaptation. Similar types of non-linear implementation processes are also recognized in the other branches of the technology implementation literature. For example, Makkonen et al. (2012) applied a disjointed incrementalism perspective (Lindblom, 1979) to their study to conceptualize the sequence of interlinked technology adoptions and the interrelated chain of problems and solutions that the adopter organization faced until it reached a balance through the learning-by-doing approach. Mero et al. (2020) applied the effectuation perspective of technology adoption to demonstrate how even large business-to-business (B2B) companies move back and forth

between effectual and causal reasoning to challenge the idea of a rational and planned process by the probe-and-learn approach. Andriole (2018) discussed a mindset change, wherein a primary feature of technology implementation is not mastering its complexity but rather finding ways to attain a balanced outcome via continuous exploration, testing, and learning activities.

Altogether, the studies introduced above articulate ideas and conceptualizations for considering the TOE fit as an actionable entity that can be reached by adaptations for both the technology and the organization. To synthesize the characteristics of the alternative perspectives described above, the following section draws from the research on agile methodologies. These methodologies are used to articulate a research framework for the agile implementation of SaaS that is a complementary theoretical perspective to the traditional software implementation research, which builds on the cautious preplanning perspective.

2.2. An analytical framework for the agile implementation of SaaS

Over the last two decades, the concept of agility has expanded from the field of IT and software development (Bianchi et al., 2020; Dybå & Dingsøyr, 2008; see also Manifesto for Agile Software Development[1]) into various areas of business. The concept has an established position in guiding organizational processes, such as innovation development (Paluch et al., 2020), business analytics (Collier, 2011), risk management (Moran, 2014), organizational learning (Annosi et al., 2020), and service development (Sjödin et al., 2020), to be capable of reacting to unforeseen, rapid changes in the business environment. Agile process management builds upon how the desired performance is enacted through initial ideation and testing of the respective application that informs continuous development and modifications (Mills et al., 2020). For this purpose, agile methodologies, such as Scrum and Kanban, deviate from linear process models and use circular and flexible processes of designing, testing, and developing (Bianchi et al., 2020; Larman, 2004; Mills et al., 2020). According to Paluch et al. (2020), conventional processes are deterministic because they aim to reduce the uncertainty of technology initiatives upfront by careful planning, systematic execution, and control. On the contrary, agile processes are stochastic; they discover and address uncertainties continuously by adapting to new insights and unexpected events (Paluch et al., 2020).

The focus on particular agile methodologies has turned toward the broader issue of the agile logic of an organization (Tronvoll et al., 2020). Thus, in its broadest sense, agility refers to an organization's operational logic (or strategic agility) that manifests in a set of organizational elements that nurture a change-embracing and growth-oriented culture to support iterative processes for fast reactions and reconfigurations of the organization (Braunscheidel & Suresh, 2009; Ghezzi & Cavallo, 2020; Swafford et al., 2006; Conforto et al., 2016). Agile organizations are associated with increased variety and speed in their organizational actions, which allow them to gain a competitive advantage (Razmdoost et al., 2020). Building on this broad conceptualization of agility as operational logic, the focal study builds a framework that conceptualizes the ever-increasing pattern of SaaS implementation in which the implementation process is not guided by the explicit *ex ante* idea of the TOE fit (Tornatzky & Fleischer, 1990); rather, the fit arises during the implementation process via iterative testing.

To conceptualize the micro-foundations of agile implementation logic, we draw from the concept of imbrication (Leonardi, 2011). The central idea of imbrication is that contemporary organizations work with flexible routines and flexible technologies. Routines here refer to repeated practices through which an organization exploits its resources (Feldman & Pentland, 2003; Teece, 2012). When flexible routines meet flexible technologies, the organization may either change its routines or customize a technology to fit its existing routines. When changes to technology and routines are sequential and interdependent, they become imbricated as the implementation process evolves. Leonardi's (2011) conceptualization supports our view of an agile implementation process in which an organization does not have a fixed plan for how a technology or organizational routines are adapted. Instead, imbricated adaptations result from interactions during the implementation process as the organization learns which technology features and which organizational routines will help them realize their goals. According to Leonardi (2011), imbricated adaptations are fundamentally driven by the perception of the affordances and constraints of the technological and organizational context in which the implementation process occurs. Thus, the theory of affordances provides a meaningful lens through which to understand how organizations select the adaptations that are needed to facilitate the agile implementation of SaaS.

Originally, the theory of affordances was created to explain how animals perceive their environments (Gibson, 1979). The principal claim was that physical objects in the environment offer certain affordances for action, but those affordances depend on the specific ways in which an animal perceives the object and its material properties (i.e., physical objects have specific features, but their affordances are unique to the goals of the actor in a given context). This theory has been principally applied to the technology literature by Norman (1990, 1999), who suggested that affordances derive from specific technological features. Hutchby (2001) offered a relational view by arguing that affordances are created in the interaction between users and technological features: users view technological features with different goals in mind, making the affordances change across different contexts. Notably, depending on the context, technological features are not always perceived as affordances; they may also be perceived as constraints if they inhibit the realization of one's goals (Hutchby, 2001). Leonardi's (2011) conceptualization of imbrication and Hutchby's (2001) relational view on the theory of affordances (and constraints) offer meaningful ways to approach and conceptualize the agile implementation of SaaS software, as depicted in Fig. 1.

The framework depicted in Fig. 1, which forms an analytical framework of the research to guide the empirical study, defines agile implementation as a process by which an organization matches its routines with the features of the technology to be implemented. Matching involves making decisions on how to adapt organizational routines to fit SaaS features as well as how to adapt SaaS features to fit existing routines. These decisions are based on the perception of what affordances and constraints the technological and organizational contexts offer per the organizational goals. Each new adaptation to a routine and/or a feature builds on the previous adaptations (Makkonen et al., 2012; Makkonen et al., 2016), leading to a chain of imbricated adaptations that form the core of the implementation process. Consequently, *we propose that agile implementation of SaaS is a process by which an organization matches an SaaS's features with its organizational routines by making a series of imbricated adaptations to both the technological features and the organizational routines based on perceived affordances and constraints and its organizational goals.*

3. Methodology and research design

3.1. Longitudinal case study research

This study adopted the longitudinal case research strategy and focused on a single case during the period May 2016–April 2020. The exploratory case study method is particularly suitable for investigating complex phenomena in a real-life setting (Eisenhardt, 1989) and attaining an in-depth understanding of an emerging phenomenon through fortifying a theory by answering "why" and "how" questions (Yin, 2014). The longitudinal single-case study method was considered the most suitable approach for this research because it offers a viable means to investigate the phenomenon as it unfolds, producing longitudinal insights into both the technological and the organizational

[1] https://agilemanifesto.org/.

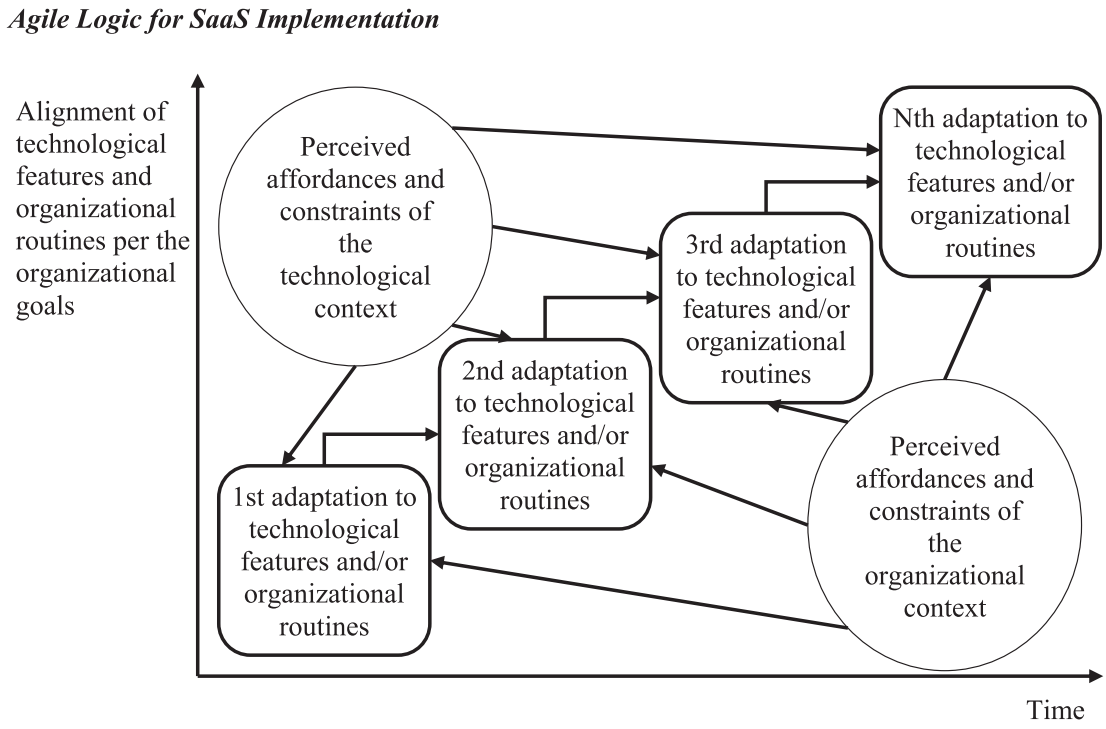

Fig. 1. Agile logic for SaaS implementation.

contexts in which the implementation process occurs. The case company was selected based on generous access to data collection and the suitability of the case to the study context. The case firm, which represents a start-up company operating in B2B markets, originated in Finland but was global at inception, and its key product is recruitment software that can be delivered digitally to international markets. Notably, research access was granted at a fertile time (May 2016) because the case company had recently acquired HubSpot MA software (March 2016) and was beginning to initiate its implementation.

3.2. Data collection

This study harnessed three data collection methods: participatory observations, interviews, and behavioral (digital) analytics data. Each selected data source had a unique role in the study design (Table 1); thus, they corroborated and complemented one another.

The participatory observations were collected throughout the implementation process over four years (May 2016–April 2020), allowing real-time documentation of how the implementation process unfolded and how agility manifested in the adaptations of technological features and organizational routines. In practice, one of the authors was involved with the implementation process by taking notes on the observations in real time and storing them in a diary. The objects of observation were limited to six key informants that were purposefully selected (Patton, 2002) to represent all organization members who participated in the implementation process (Table 2). The involved author was unaware of the theoretical framing of this study to avoid biases in the data collection.

Next, semi-structured interviews were conducted with the case firm's key informants (i.e., the same informants who were observed) in three phases: August 2016, December 2016, and February 2017. The rationale for selecting these timeframes was that the observational data revealed major adaptations in the implementation process, providing fertile timing for the interviews. For the same reason, each interview round was slightly unique because we weighted the topical adaptations that were revealed by the observational data. Overall, the semi-structured interviews followed our conceptual framework. Accordingly, the main role of the interviews in the study design was to identify the perceived affordances and constraints of the organizational and technological contexts because such perceptions were difficult to collect explicitly via observations. Therefore, we focused on questions like the following: What do you perceive as the use cases/benefits/limitations/

Table 1
Data sources and their roles in the study design.

Data source	Role in the study design
Participatory observations (from a four-year period)	Real-time documentation of the key events, activities, and adaptations in the implementation process
Semi-structured interviews conducted with six key informants at three timepoints (N = 18)	Collection of explicit perceptions of the affordances and constraints of the technological and organizational contexts and reflections on topical adaptations in the implementation
Validation interviews conducted with six key informants at two timepoints (N = 12)	Verification of the accuracy of our findings and assessment of data saturation
Behavioral analytics data (from a four-year period)	Tracking progress toward the organizational goal along the implementation process

Table 2
Key informants of the study.

Key informant	Role and main responsibilities
1. Chief Executive Officer	Operates as the company director; focuses primarily on sales and growth but supports all other key activities
2. Chief Technology Officer	Key role in product development; contributes primarily to sales
3. Marketing Director	Responsible for marketing; key role in brand management and marketing analytics
4. Sales Manager	Responsible for sales; key role in customer relationship management
5. Customer Success Manager	Responsible for customer service and sales; assists in marketing; key role in customer relationship management
6. Solution Designer	Responsible for product development; key role in building the information system infrastructure

challenges of the MA system? What are the organizational elements that facilitate/inhibit the implementation? What has been learned? What has been achieved? What should be done next? Probing questions were also used to reveal further insights into the interviewees' responses (Creswell, 2009).

In addition, two validation interview rounds in June 2018 and April 2020 were organized to verify the study findings. These interviews were open discussions that focused on discussing the study findings with the key informants and obtaining feedback and corrections to our interpretations. Furthermore, the interviews' role was to ensure that our data collection was saturated. Given that major new developments were not found during the validation interviews, we concluded that the data collection could be terminated. In total, the interview data comprised 18 semi-structured interviews and 12 validation interviews (i.e., six interviews per interview round), which were conducted face to face and took an average of 32 min each.

Finally, the interview and observational data were complemented with behavioral analytics data, which were collected from the case firm's web analytics and social media analytics tools (e.g., website visits, social media following, campaign statistics, collection of marketing and sales leads). The analytics data helped monitor the progress of the MA system's implementation. Importantly, the aim was not to make any causal claims that improvement in marketing metrics would be solely due to the implementation of MA.

Using multiple data sources enabled us to triangulate the data, which increases the trustworthiness of the findings and mitigates biases that are typical of qualitative inquiries with single-source data (Farquhar et al., 2020). Data triangulation was performed at the data source level, where we compared the data collected via different methods over time to ensure that our observational, interview, and analytics data were aligned, and at the key informant level, where we ensured that the data collected from different key informants formed a convergent picture of the implementation process. Fig. 2 presents the timeline of data collection alongside the key events related to the implementation process, as recommended by Street and Ward (2012).

3.3. Data analysis

Our analysis logic was guided by iterative orientation that balanced inductive theory generation and deductive theory verification and aimed to produce knowledge by integrating theoretical claims with empirical insights (see Orton, 1997; Srivastava & Hopwood, 2009). Specifically, we followed Dubois and Gadde (2002), who recommended the use of an analysis framework that is "tight" and "evolving" (p. 558), which implies that a study follows a pre-designed analytical framework that is allowed to evolve as a result of matching the case to the framework. Accordingly, our analytical framework (Fig. 1) formed the basis of our analysis, while the case-specific data determined the final specifications of the empirical framework (Fig. 4). Thus, our aim was to develop a theoretically grounded but empirically enriched framework that is more nuanced, given the particular research context (in this case, the implementation of MA software in a start-up). In the following, we explain how the data analysis proceeded in practice.

All study data, including the transcribed interviews, observation diaries, and analytics data, were integrated into a unified study database. The data were carefully reviewed several times by the researchers. Thereafter, the analysis was conducted via a three-step thematization procedure that involved data condensation, data display, and conclusion drawing/verification (Miles et al., 2014). Data condensation involved elimination of data that were deemed irrelevant to the case and the analytical framework of this study. During the data display phase, the remaining data were classified based on the analytical framework, resulting in the data structure described in Fig. 3. After several iterations, the data were classified into (a) the domains of adaptations that occurred in the implementation and (b) the perceived affordances and constraints of the MA context (i.e., technological context) and the start-up context (i.e., organizational context). In total, we identified 3 major domains of adaptations and 12 perceived affordances/constraints that were connected to those adaptations. Appendix A presents the affordances and constraints along with associated key informants and examples of interview quotes. When drawing conclusions, we interpreted the stages (i.e., design, test, and configure) through which the agile logic was manifested in the adaptations over time. As a result, we developed our conceptual framework into a context-specific and empirically enriched framework that accommodated the insights analyzed from the data. The findings were further reviewed and verified in the validation interviews. The results section details the connections between the affordances and constraints and the domains of the adaptations as well as the operationalization of those adaptations.

4. Findings

4.1. An overview of the case study

The case firm acquired HubSpot MA software in March 2016. The acquisition decision was made quickly after the CEO heard about HubSpot via recommendations. The acquisition cost was low, and HubSpot even offered a significant introductory discount for start-up companies. Therefore, management did little in terms of either comparing HubSpot to other MA systems or pre-planning the implementation process. They

Timeline of Data Collection, Key Events, and Processes Related to the Implementation

2016				2017				2018				2019	2020
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1–Q4	Q1–Q2
HubSpot is acquired	Agile implementation of HubSpot											Evaluation of implementation benefits	
		Phase 1 core interviews	Phase 2 core interviews		Phase 3 core interviews				Phase 4 validation interviews				Phase 5 validation interviews
	Participatory observations												
		Behavioral analytics data on implementation performance											
	Sales lead management process												
			Content marketing process										
					Customer intelligence process								

Fig. 2. Timeline of data collection, key events, and processes related to the implementation.

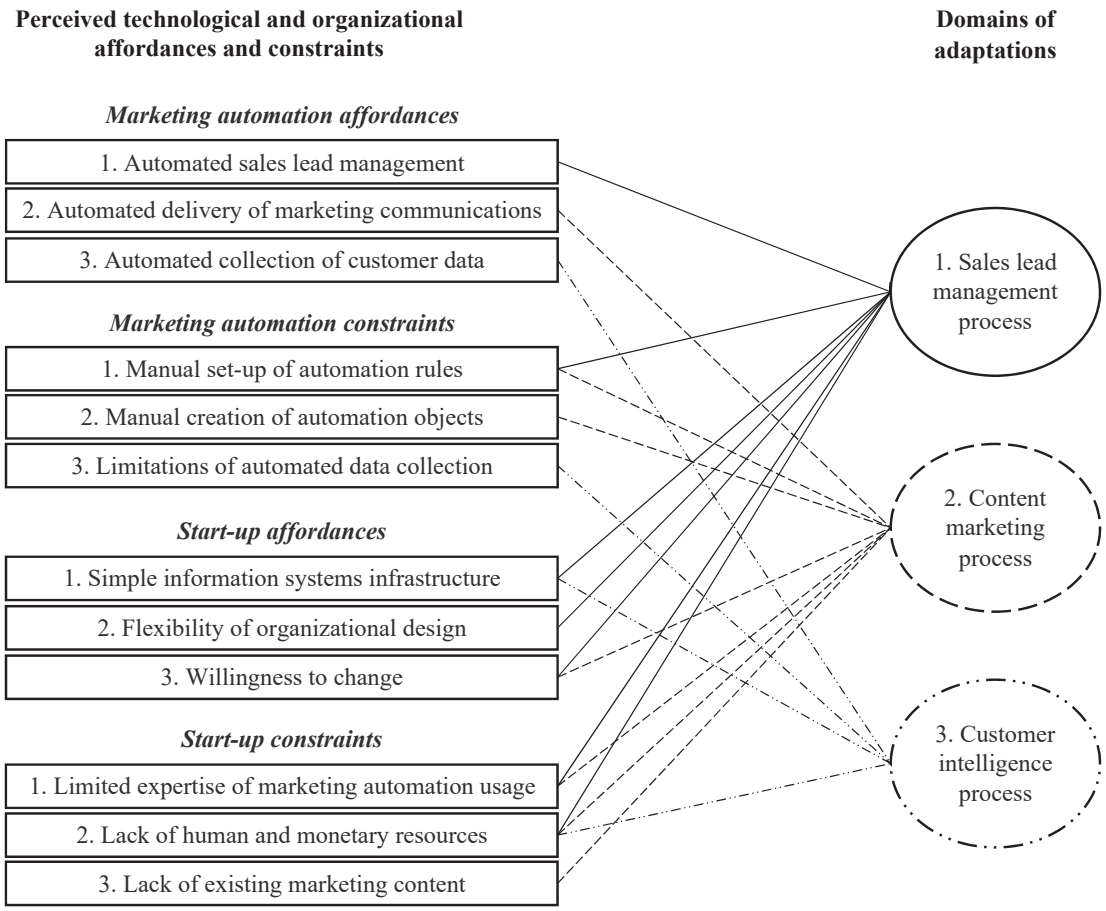

Fig. 3. Data structure.

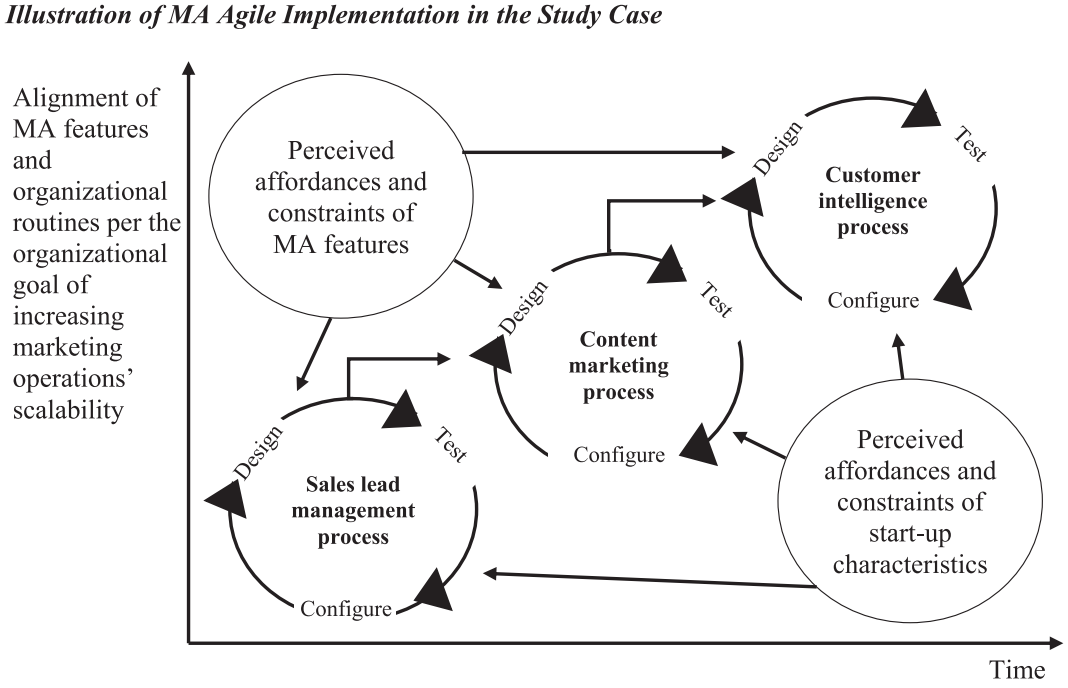

Fig. 4. Illustration of MA agile implementation in the study case.

reasoned that there were few risks to exploring the potential affordances of the system. Furthermore, the management team regarded HubSpot as a state-of-the-art platform that would allow the firm to align marketing operations with the firm's desire for a scalable business model. Thus, from the inception of the implementation process, the organizational goal was to increase the scalability of marketing operations, although they were uncertain how this goal would be practically realized.

Overall, the implementation of MA culminated in the development of three intertwined processes: (a) a sales lead management process, (b) a content marketing process, and (c) a customer intelligence process (see Fig. 4). These three processes formed the domains in which the adaptations to both technological features and organizational routines occurred. In turn, the adaptations were operationalized via alternating phases of designing, testing, and configuring. The case firm first designed an ideal process that was informed by its organizational goal and the perceived affordances and constraints that MA features and start-up characteristics evoke. During the testing phase, the firm experimented with MA features and organizational routines that might be useful for realizing the process. The testing produced insights regarding how to match MA features and organizational routines to find an optimal configuration for the process design. The phases of designing, testing, and configuring occurred in turns until the case firm found a satisfying configuration. Configuring the process also made the firm realize the need for other processes, which resulted in an imbricated chain of adaptations that ultimately led to a complete transformation of the firm's marketing operations. The following sections discuss the development of the processes in more detail.

4.2. The sales lead management process (May 2016–December 2017)

After setting up and exploring the HubSpot features, the case firm concluded that the most actionable MA affordance concerned automated sales lead management. The key MA-related constraint was that setting up the MA system and rules for managing sales leads required a significant amount of manual work. The organizational constraints magnified this problem because the firm lacked the necessary expertise and human resources to dedicate to setting up the lead management rules in the automation system. Conversely, there were several organizational affordances that facilitated the process; their simple information systems infrastructure meant that there were no complex integrations to be made, and the flexibility of the organizational design meant that it was relatively easy to adapt the sales lead management routines. More importantly, the willingness to change drove the organization to design a sales lead management process in which high-quality online sales leads would be automatically transferred to the sales team. This automated process resonated with the firm's goal of increasing the scalability of marketing operations because it would allow efficient processing of incoming online sales leads.

In the testing phase, the case firm experimented with different MA rules by which incoming leads were classified, scored, and transferred between the marketing and sales systems. This was a highly iterative task because the initial rules were driven by intuition, but they were continuously optimized in a data-driven manner. To elaborate, data were used to learn which behavioral patterns and actions (e.g., demo requests and white paper downloads) were associated with high-quality leads that the sales team should approach. In addition to customizing and optimizing the MA rules, it was equally important to adapt organizational routines to match the sales lead management process. In particular, the case firm found the alignment of marketing and sales operations to be a crucial factor in effective lead management. Thus, the case firm tested different cooperation routines to improve alignment between marketing and sales and clarify the responsibilities of each group. After several configurations of MA rules and organizational routines, the case firm had built a strong foundation for its sales lead management process by December 2017. Nevertheless, the analytics data revealed that the number of sales leads remained low, which turned their attention to the need for creating and delivering marketing content that would attract more sales leads.

4.3. The content marketing process (October 2016–March 2018)

While configuring the sales lead management process, it became obvious that the existing approach of generating leads via cold calling was ill-suited to the scalable business model that the case firm was building. In response, the case firm envisioned a content marketing process that involved the systematic creation and delivery of valuable and engaging content, which was presumed to feed the sales lead management process with new incoming leads. This vision was based on the automated delivery of marketing communications, which was perceived as one of the key MA affordances, enabling the firm to send relevant content to customers at the optimal time of their purchasing journey. The constraints of creating the content marketing process were that the case firm had a limited amount of existing marketing content, and the MA did not create content or any other automation objects on behalf of the organization. Furthermore, the case firm had to manually determine the automation rules of what content was delivered to whom and when. Similar to the sales lead management process, the lack of MA expertise and human resources was considered a significant constraint in the content marketing process. However, management responded quickly by hiring a new marketer to support the firm's content creation efforts. Overall, the envisioned process was considered to take MA usage to a more advanced level; thus, the entire organization was willing to help realize its goals by making changes to organizational routines.

Initially, the testing focused primarily on organizational routines rather than technological features. The marketers innovated new ways to create content but were dissatisfied with the resulting content. Ultimately, the creation of high-quality content was a resource-intensive task that required versatile expertise and collaboration between marketers and product specialists. After testing different procedures to create content, the firm developed a routine in which the content creation expertise of marketers was matched with the expertise of product specialists and key managers. This type of co-creation empowered nearly the entire organization to participate in content creation. As the volume of content increased, the focus shifted to customizing the targeting and personalization criteria of the MA system. Matching content pieces with distinct customers was a highly experimental task that relied on data-driven optimization as the firm learned what types of content resonated with distinct types of behavioral patterns. Once their knowledge accumulated, the focus shifted to matching personalization criteria with content creation efforts, which led to several configurations until the case firm found harmony between them by March 2018. Despite the progress seen, the analytics data demonstrated strong deviations in how customers responded to personalized content delivery, which implied an urgent need to learn more about the preferences of the firm's target customers.

4.4. The customer intelligence process (May 2017–December 2018)

While the case firm was fine-tuning the content marketing process, its marketers realized that they had underutilized the automated collection of customer data, although they had perceived it as a key affordance during the early phase of the implementation process. This untapped potential hindered the relevance of their content marketing delivery. In response, the firm's marketers began designing a customer intelligence process that would foster the systematic creation and sharing of customer insights. Their simple information systems infrastructure was considered a major affordance in the process because the existing customer data were already in one system, which eliminated the need to integrate data from different systems. The key constraint of MA in generating customer intelligence was that data collection was limited to behavioral data, while qualitative insights on, for example, implicit customer needs were largely missing. In other words, they were able to

track what customers did and how they responded to different content marketing activities, but they lacked data on why customers behaved in specific ways. Due to the lack of human and monetary resources, the firm also had a limited ability to conduct extensive market research to complement the analytics-based data on customer behavior. The limitations of the customer data stressed the need for experiments to identify the types of content that would meet their customers' needs.

The testing phase focused on exploring different organizational routines to design experiments that could feed customers with alternative content and analyze their responses with different metrics to generate new insights on preferences. The firm also tested different MA features to find actionable ways to automatically execute experiments and disseminate insights within the organization to support learning. As knowledge of its customers accumulated, the case firm improved its understanding of different customer personas and points of interest. In turn, the case firm was able to create and deliver more personalized and targeted content to meet the informational needs of its target customers and consequently facilitate the generation and nurturing of incoming leads. Positive progress was evidenced by analytics data that demonstrated significant improvements in the response rates of content marketing activities and the volume of incoming sales leads.

4.5. Evaluation of implementation benefits (2019–2020)

After the case firm configured the three core processes for MA by late-2018, the pace of adaptations decreased, but continuous testing and optimization remained an integral part of its MA usage. Certain strategic decisions (e.g., changes to the target market and customer relationship management) led to more active development of marketing processes. However, even notable developments were relatively frictionless in their execution because the firm was already accustomed to making agile changes to its processes.

By April 2020 (four years after the implementation), the firm had gained significant benefits from the implementation of MA as follows: (a) efficiency gains, including that a significant part of marketing communication was automated, while the numbers of sales leads, website visitors, and social media followers were rapidly growing; (b) a better understanding of its customers, which allowed the further strengthening of its business model; and (c) increased transparency in linking marketing activities with sales revenue, which led to favorable attitudes toward marketing operations.

Besides the direct benefits, the case company recognized that the most substantial benefits of MA had been indirect because its implementation had transformed *ad hoc* marketing and sales activities into highly systematic operations that enabled continuous learning and performance improvements. During the implementation of MA, the sales lead management process progressed from a random cold-calling approach to a systematic lead-generation funnel, including metrics and marketing activities at each stage of the funnel. The content marketing process had transformed the philosophy of marketing communications from outbound to inbound. The customer intelligence process had transformed from using *ad hoc* customer feedback data to systematic monitoring of customer preferences and responses to marketing activities, leading to new insights regarding customers' needs and preferences that now guide the firm's marketing and business strategy at large.

5. Discussion

5.1. Theoretical contributions and propositions

This study conceptualized agile logic for SaaS implementation as a process in which an organization matches SaaS features with organizational routines to reach its goals by making a series of imbricated adaptations to both the technological features and the organizational routines based on their perceived affordances and constraints. The conceptualization built on Leonardi's (2011) theory of imbrication and Hutchby's (2001) relational view of the theory of affordances and constraints to offer a theoretical explanation for agile implementation processes that have become increasingly common in business practice (Andriole, 2018; Brinker, 2019). Our empirical setting explicated the operationalization of the conceptualization via a longitudinal case study of an MA SaaS implementation by a start-up company, leading to three theoretical contributions (C) and seven propositions (P) to guide future research on SaaS implementation.

C1: This study developed a framework for investigating SaaS implementation processes that do not follow a linear planning logic. Thus, our framework complements the existing SaaS research (e.g., Kim et al., 2017; Oliveira et al., 2019; Seethamraju, 2015) that is largely built on preplanning the implementation process to ensure the TOE fit (Tornatzky & Fleischer, 1990). In doing so, the study responds to business practice calls for novel approaches that are capable of accommodating implementation processes that are characterized by fast adoption decisions and explorative learning by doing (Andriole, 2018; Brinker, 2019). Although our intention is not to claim that the planning phase should be ignored, our findings suggest that the low upfront acquisition cost of SaaS mitigates the risk of adoption decision failure; therefore, time-consuming planning and evaluation may be considered bigger risks because they delay the potential benefits that can be gained with SaaS. This is particularly evident in implementations that require adaptations to both technological features and organizational routines because it is difficult to foresee their ideal configuration and resulting outcomes. The findings imply that a more agile approach to SaaS implementation provides an effective route for reaching organizational goals because it allows more flexibility and may lead to unforeseen and positive developments via the trial-and-error approach (Larman, 2004). In this regard, the proposed framework builds toward systemizing the agile implementation process into cyclical steps of designing, testing, and configuration that provide a structure for agile implementation processes, enabling the organization to avoid a tendency toward *ad hoc* behaviors (Heimeriks et al., 2012; Maitland & Sammartino, 2015). These contributions led us to formulate P1–P3 to guide further research.

P1: The low upfront cost of SaaS acquisition transfers the risk perception from the risk of adoption failure to the risk of delaying the potential benefits of SaaS, leading to fast adoption decisions.

P2: Fast adoption of SaaS allows for an implementation process that is guided by agile learning by doing rather than pre-evaluation and planning.

P3: The management of SaaS implementation can be operationalized as recurring events of designing, testing, and configuring to adapt and match SaaS features and organizational routines.

C2: The study theorizes how organizations select which adaptations to technological features and organizational routines are needed to facilitate SaaS implementation. Although the literature has recognized adaptations as a core part of the agile implementation approach (Makkonen et al., 2016; Mero et al., 2020; Paluch et al., 2020), it has focused on the logic of continuous adaptations rather than the elements that guide those adaptations. We contribute to this gap by demonstrating that the selection of adaptations is informed by organizational goals as well as perceived affordances and constraints of the technological and organizational context. Notably, the findings implied that the resulting adaptations to organizational routines were more radical than the SaaS features because the implementation process completely transformed the case company's marketing strategy and operations. Although this finding may be influenced by the start-up context, it raises an important question regarding the influence of major SaaS providers in driving business strategies at large; the increasing implementation of dominant SaaS solutions might lead to institutional pressures to make mimetic movements and conform mainstream business practices to suit the software's features, which are likely to hinder differentiation of marketing practices and decrease their benefits (Hillebrand et al., 2011). These contributions led us to formulate P4 and P5 to guide further research.

P4. Agile SaaS implementation culminates in adaptations to organizational routines and software features that are informed by organizational goals and the perceived affordances and constraints of the technological and organizational contexts.

P5. Adaptations of organizational routines to fit mainstream software features may lead to the institutionalization of business practices and subsequently decrease the firm's ability to differentiate itself from competitors.

C3: Our study contributes to MA as a particular stream of SaaS literature (Järvinen & Taiminen, 2016; Mero et al., 2020) by demonstrating the key processes that a start-up organization needs to capture the affordances of MA. Specifically, the findings related to the key MA processes are strongly aligned with the work of Järvinen and Taiminen (2016), who emphasized the vital role of building suitable sales lead management and content marketing processes as part of an MA initiative. We have added to this knowledge by demonstrating the relevance of the customer intelligence process in supporting content marketing and sales lead management. The study findings also imply that the effective management of these key processes requires versatile marketing capabilities (e.g., Day, 2011; Kachouie et al., 2018), ranging from the creativity to design MA use cases to the analytical competence to evaluate MA usage performance. Our findings are also highly related to the findings of Mero et al. (2020) regarding their use of effectuation theory to challenge the conventional wisdom of technology implementation as a strategic initiative with a predetermined implementation plan. Mero et al. (2020) show that even large-sized B2B companies make *ad hoc* decisions on adopting MA. Additionally, the subsequent implementation process balances the effectual experimentation of MA features and the causal creation of organizational processes and routines that support the efficient use of MA. Thus, the findings of Mero et al. (2020) that characterize the implementation of MA as a dynamic and flexible process align with our conceptualization of agile implementation, suggesting that our model may be highly relevant beyond the start-up context of our study. These contributions led us to formulate P6 and P7 to guide further research.

P6. In the context of MA SaaS implementation, sales lead management, content marketing, and customer intelligence processes form the core domains in which adaptations to SaaS features and organizational routines occur.

P7. Managing the key processes of utilizing MA requires marketing capabilities that combine creativity with analytics competence.

5.2. Managerial implications

From a managerial perspective, in-depth case studies often provide highly useful information (Johnston et al., 1999). This study provides important implications for managers who are either considering the acquisition of SaaS or are in the early phases of its implementation. Our findings suggest that managers should be open to new SaaS technologies and have a low threshold for acquiring them for trial periods, as long as the given technology fits the existing or desired business model. Before wasting resources on implementing software, the firm should focus on exploring the features of the given SaaS technology and assess their relevance to the business model and alignment with existing organizational routines. If the software is not aligned, managers should evaluate the need for additional resources that the adaptations would require and whether the adaptations would add value to the business or divert attention from more critical business processes. If the adaptations are likely to add value and help the organization reach its goals, we recommend proceeding with implementation without detailed planning procedures.

During the implementation phase, it is critical to identify the key value-adding features of the software and the processes that are needed to benefit from those features. This approach requires adaptations to both software features and organizational routines. We suggest that managers adopt an agile process that follows alternating phases of designing, testing, and configuring. The key to success is learning via trial and error because it is difficult to foresee how different variations of features and routines might bring the optimal result. For example, because our case organization had difficulties envisioning a sales lead management process that would bring in high-quality leads, they had to try different adaptations of the MA rules and sales approaches toward engaging leads at different phases of the funnel. Consequently, the firm managed to build a process that suited their specific business context.

As implementation proceeds, managers must continuously monitor internal and external environments. They should search for bottlenecks in software usage, design processes to further strengthen the benefits of the SaaS solution, and test and develop processes that are beneficial to the firm. Alongside internal development, it is vital that managers remain agile and react quickly to changes in the business landscape so that the use of SaaS can be dynamically adjusted to reflect changes in both customer and market behaviors.

5.3. Limitations and future research

An important part of any study is critically evaluating its quality. This study was limited in terms of its statistical generalizability, which is typical of qualitative inquiries (Dubois & Gibbert, 2010; Yin, 2014). Instead, the study aimed to achieve analytical generalizability (i.e., the empirical observations are generalizable to a theory instead of a population) (Yin, 2014). The analytical generalizability was improved by building an analytical framework that guided our inquiry. Although the details of the framework may vary from study to study, its core idea is presumed to be transferable to other settings because of its broad contextualization; we presume that, regardless of the firm type, the agile implementation of most technologies will require adaptations to features and organizational routines, and these adaptations will be informed by perceived affordances and constraints. Thus, future research could adapt our study framework to other technologies, types of organizations, and cultures to test its applicability across contexts. Furthermore, it remains unclear which specific circumstances favor agile versus preplanning logic in technology implementation. Therefore, future research should study the roles of planning and learning by doing in the technology implementation processes, explore what types of technologies require more careful planning, and determine which technologies can be managed largely via learning by doing.

Achieving a high level of reliability and validity is challenging for a longitudinal research study that is influenced by countless factors and events. However, the authors aimed to improve the study's reliability through transparent data collection and analysis processes that would allow the study to be replicated (Batt, 2012; Dubois & Gibbert, 2010). Validity was improved by using several informants and multiple sources of data (observations, interviews, and analytics data) to examine the research phenomenon from various angles and achieve data triangulation (e.g., Beverland & Lindgreen, 2010; Piekkari et al., 2010). Furthermore, the results were verified by validation interviews. However, an analysis of qualitative data requires interpretation, which may lead to subjective biases and the omission of important evidence. Therefore, more research is needed to test the validity of our propositions (P1–P7) and the conceptualization of agile implementation processes at large.

CRediT authorship contribution statement

Joel Mero: Conceptualization, Data curation, Methodology, Investigation, Writing – original draft, Writing – review & editing. **Miira Leinonen:** Data curation, Formal analysis, Investigation, Methodology, Writing – original draft, Resources, Writing – review & editing. **Hannu Makkonen:** Conceptualization, Writing – review & editing, Writing – original draft, Visualization, Methodology. **Heikki Karjaluoto:** Methodology, Writing – original draft, Writing – review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A

Categories of perceived affordances and constraints, associated key informants, and example quotes.

Marketing automation affordances	Key informants	Example quotes
1. Automated sales lead management	• Chief Executive Officer (CEO) Chief Technology Officer (CTO) Marketing Director	"We noticed that marketing automation allows us to treat sales leads automatically, which suits our scalable business model" (Marketing Director). "HubSpot makes marketing and sales automated … Marketing automation can act as a sales person or a sales team and get just as many leads" (CTO).
2. Automated delivery of marketing communications	• CEO Marketing Director Sales Manager Solution Designer	"I think the key benefit is the automation of customer communication, like automatic emails, for example" (Solution Designer)."HubSpot automates digital marketing and helps us to communicate with prospects and customers" (Sales Manager). .
3. Automated collection of customer data	• CEO Customer Success Manager Marketing Director Sales Manager	"First of all, it provides insights about people who are interested in our solution" (Sales Manager)."HubSpot will bring knowledge and data about new kinds of buyer profiles (data we would not know ourselves). I also hope that HubSpot will help us to find out what our target group is interested in so we can make our solution more fascinating for them. Additionally, we can maybe also find more information about our key segments or even find new segments, and then we would be able to generate more content for them" (Marketing Director).
Marketing automation constraints	**Key informants**	**Example quotes**
1. Manual set-up of automation rules	• CEO CTO Marketing Director Sales Manager Solution Designer	"It is hard to know how much work it requires, and I expected the process to be faster … It [the set-up of marketing automation] has been a slower and more laborious process than I had anticipated … Difficulties we may face are that we have set up something wrong" (CEO). "There is much more manual work than I had anticipated. There is still a long way to get to the point where marketing automation works almost independently and the user only needs to do small modifications" (Marketing Director).
2. Manual creation of automation objects	• CEO Marketing Director Sales Manager Solution Designer	"Unless our content is interesting, people do not register, and we do not get leads [to the system]" (CEO). "The biggest problem so far has been the manual work that needs to be done, such as updating contact details and offers … If we contact the wrong people or send them the wrong messages, the conversions get worse, and it will also be harmful to our brand" (Sales Manager).
3. Limitations of automated data collection	• CEO CTO Customer Success Manager Marketing Director Solution Designer	"[Besides data produced by marketing automation], we still need more knowledge of who the people are who visit our website and whether they are relevant for us" (CTO). "We can track thousands of website visitors, but we should get more conversions and business results out of them. The trouble is, we do not know how many of the visitors are potential customers for us" (Marketing Director).
Start-up affordances	**Key informants**	**Example quotes**
1. Simple information systems infrastructure	• CTO Customer Success Manager Marketing Director Sales Manager Solution Designer	"We do not have multiple systems nor the need for complex integrations" (Sales Manager)."All [customer] data and conversations are in one place" (Customer Success Manager) .
2. Flexibility of organizational design	• CEO CTO Sales Manager	"We are a start-up, and we do not have the same problems as corporations have. We can make changes in our organization quickly and alter our activities when the understanding of the market and customers grows" (Sales Manager)."It has been maybe good that we do not have a huge team. It has probably sped up the implementation process to be more streamlined" (CTO) .
3. Willingness to change	• Customer Success Manager Marketing Director Solution Designer	"All employees have had a positive attitude towards the new system, so there has not been change resistance. Everyone wants to learn how to use the system and make it part of everyday work" (Customer Success Manager)."People are motivated to use the system. It is always about the people, not about the tools. All employees are willing to contribute to the implementation." (Solution Designer) .
Start-up constraints	**Key informants**	**Example quotes**
1. Limited expertise of marketing automation usage	• CEO CTO Customer Success Manager Marketing Director Sales Manager	"We had employees working with a system like that pretty much for the first time in their life, so it has taken time from them to learn to use it. If we would have had someone on board who has more experience with the system, it might have sped up the process" (CEO)."This is always an issue when people are working. I see that the development areas concern the organization, not the system. We have to find the right methods for how to work more efficiently and accurately, not to get new tools" (Sales Manager).
2. Lack of human and monetary resources	• CEO CTO Customer Success	"We are a start-up, and we have too many things going on at the same time. We have difficulties in estimating how much time different activities take" (Sales Manager). "The most difficult part is the lack of resources because adequate resources allocated to HubSpot take a lot from us

(*continued on next page*)

(*continued*)

Start-up constraints	Key informants	Example quotes
	Manager Marketing Director Sales Manager Solution Designer	… We do not have enough resources for this project, and external service providers are too expensive" (Marketing Director).
3. Lack of existing marketing content	• CEO CTO Marketing Director Sales Manager Solution Designer	"One difficulty is the lack of content, and good marketing cannot be done without it. It takes effort from all of us" (CTO)."We do not have enough content to use the system properly" (Marketing Director) .

References

Al-Mudimigh, A., Zairi, M., & Al-Mashari, M. (2001). ERP software implementation: An integrative framework. *European Journal of Information Systems, 10*(4), 216–226.

Alsharari, N. M., Al-Shboul, M., & Alteneiji, S. (2020). Implementation of cloud ERP in the SME: Evidence from UAE. *Journal of Small Business and Enterprise Development, 27*(2), 299–327.

Andriole, S. J. (2018). Implement first, ask questions later (or not at all). *MIT Sloan Management Review, 59*(4), 7–10.

Annosi, M. C., Martini, A., Brunetta, F., & Marchegiani, L. (2020). Learning in an agile setting: A multilevel research study on the evolution of organizational routines. *Journal of Business Research, 110*, 554–566.

Batt, P. J. (2012). Measures and measurement: Process and practise. *Industrial Marketing Management, 41*(3), 379–384. https://doi.org/10.1016/j.indmarman.2012.02.002

Beverland, M., & Lindgreen, A. (2010). What makes a good case study? A positivist review of qualitative case research published in Industrial Marketing Management, 1971–2006. *Industrial Marketing Management, 39*(1), 56–63. https://doi.org/10.1016/j.indmarman.2008.09.005

Bianchi, M., Marzi, G., & Guerini, M. (2020). Agile, Stage-Gate and their combination: Exploring how they relate to performance in software development. *Journal of Business Research, 110*, 538–553.

Blank, S. & Dorf, B. (2012). *The startup owner's manual: The step-by-step guide for building a great company*. K & S Ranch.

Braunscheidel, M. J., & Suresh, N. C. (2009). The organizational antecedents of a firm's supply chain agility for risk mitigation and response. *Journal of Operations Management, 27*(2), 119–140.

Brinker, S. (2019). June). *Of dinosaurs and meteors: 2 different (and contentious) models of technology adoption. Chiefmartec.com., 17*. https://chiefmartec.com/2019/06/dinosaurs-meteors-2-different-models-technology-adoption/.

Brinker, S. (2020). April). *Marketing technology landscape supergraphic (2020): Martech 5000 — really 8,000, but who's counting? Chiefmartec.com., 22*. https://chiefmartec.com/2020/04/marketing-technology-landscape-2020-martech-5000/.

Cho, V., & Chan, A. (2015). An integrative framework of comparing SaaS adoption for core and non-core business operations: An empirical study on Hong Kong industries. *Information Systems Frontiers, 17*, 629–644. https://doi.org/10.1007/s10796-013-9450-9

Collier, K. W. (2011). *Agile analytics: A value-driven approach to business intelligence and data warehousing*. Pearson Education.

Computer Economics. (2019). *Companies shift gears in their adoption of SaaS*. computereconcomics.com. https://www.computereconomics.com/article.cfm?id=2707.

Conforto, E. C., Amaral, D. C., da Silva, S. L., Di Felippo, A., & Kamikawachi, D. S. (2016). The agility construct on project management theory. *International Journal of Project Management, 34*(4), 660–674.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative and mixed methods approaches* ((3rd ed.),). Sage.

Day, G. S. (2011). Closing the marketing capabilities gap. *Journal of Marketing, 75*(July), 183–195.

Desouza, K. C., Awazu, Y., & Ramaprasad, A. (2006). Modifications and innovations to technology artifacts. *Technovation, 27*, 204–220.

Dubois, A., & Gadde, L.-E. (2002). Systematic combining: An abductive approach to case research. *Journal of Business Research, 55*(7), 553–560.

Dubois, A., & Gibbert, M. (2010). From complexity to transparency: Managing the interplay between theory, method and empirical phenomena in IMM case studies. *Industrial Marketing Management, 39*(1), 129–136. https://doi.org/10.1016/j.indmarman.2009.08.003

Dybå, T., & Dingsøyr, T. (2008). Empirical studies of agile software development: A systematic review. *Information and Software Technology, 50*(9–10), 833–859.

Eisenhardt, K. M. (1989). Building theories from case study research. *The Academy of Management Review, 14*(4), 532–550. https://doi.org/10.2307/258557

Farquhar, J., Michels, N., & Robson, J. (2020). Triangulation in industrial qualitative case study research: Widening the scope. *Industrial Marketing Management, 87*, 160–170. https://doi.org/10.1016/j.indmarman.2020.02.001

Feldman, M. S., & Pentland, B. T. (2003). Reconceptualizing organizational routines as a source of flexibility and change. *Administrative Science Quarterly, 8*(1), 94–118.

Fichman, R. G., & Moses, S. A. (1999). An incremental process for software implementation. *Sloan Management Review, 40*(2), 39–52.

Finney, S., & Corbett, M. (2007). ERP implementation: A complication and analysis of critical success factors. *Business Process Management Journal, 13*(3), 329–347.

Gartner. (2020, 23 July). *Gartner forecasts worldwide public cloud revenue to grow 6.3% in 2020*. https://www.gartner.com/en/newsroom/press-releases/2020-07-23-gartner-forecasts-worldwide-public-cloud-revenue-to-grow-6point3-percent-in-2020.

Ghezzi, A., & Cavallo, A. (2020). Agile business model innovation in digital entrepreneurship: Lean startup approaches. *Journal of Business Research, 110*, 519–537.

Gibson, J. J. (1979). *The ecological approach to visual perception*. Houghton Mifflin.

Hart, S., Hogg, G., & Banerjee, M. (2004). Does the level of experience have an effect on CRM programs? *Exploratory research findings. Industrial Marketing Management, 33*(6), 549–560. https://doi.org/10.1016/j.indmarman.2004.01.007

Heimeriks, K. H., Schijven, M., & Gates, S. (2012). Manifestations of higher-order routines: The underlying mechanisms of deliberate learning in the context of postacquisition integration. *Academy of Management Journal, 55*(3), 703–726.

Hillebrand, B., Nijholt, J. J., & Nijssen, E. J. (2011). Exploring CRM effectiveness: An institutional theory perspective. *Journal of the Academy of Marketing Science, 39*(4), 592–608. https://doi.org/10.1007/s11747-011-0248-3

Hutchby, I. (2001). Technologies, texts and affordances. *Sociology, 35*(2), 441–456.

Johnston, W. J., Leach, M. P., & Liu, A. H. (1999). Theory testing using case studies in business-to-business research. *Industrial Marketing Management, 28*(3), 201–213.

Järvinen, J., & Taiminen, H. (2016). Harnessing marketing automation for B2B content marketing. *Industrial Marketing Management, 54*, 164–175. https://doi.org/10.1016/j.indmarman.2015.07.002

Kachouie, R., Mavondo, F., & Sands, S. (2018). Dynamic marketing capabilities view on creating market change. *European Journal of Marketing, 52*(5–6), 1007–1036. https://doi.org/10.1108/EJM-10-2016-0588

Karim, J., Somers, T. M., & Bhattacherjee, A. (2007). The impact of ERP implementation on business process outcomes: A factor-based study. *Journal of Management Information Systems, 24*(1), 101–134.

Karunagaran, S., Mathew, S. K., & Lehner, F. (2019). Differential cloud adoption: A comparative case study of large enterprises and SMEs in Germany. *Information Systems Frontiers, 21*(4), 861–875.

Ke, W., & Wei, K. K. (2008). Organizational culture and leadership in ERP implementation. *Decision Support Systems, 45*, 208–218.

Kim, S. H., Jang, S. Y., & Yang, K. H. (2017). Analysis of the determinants of software-as-a-service adoption in small businesses: Risks, benefits, and organizational and environmental factors. *Journal of Small Business Management, 55*(2), 303–325. https://doi.org/10.1111/jsbm.12304

Kumar, K., & Van Hillegersberg, J. (2000). ERP experience and evolution. *Communications of the ACM, 43*(4), 22–26.

Larman, C. (2004). *Agile and iterative development: A manager's guide*. Addison-Wesley.

Lee, S., Park, S. B., & Lim, G. G. (2013). Using balanced scorecards for the evaluation of "software-as-a-service". *Information and Management, 50*(7), 553–561. https://doi.org/10.1016/j.im.2013.07.006

Leonardi, P. M. (2011). When flexible routines meet flexible technologies–Affordance, constraint, and the imbrication of human and material agencies. *MIS Quarterly, 35*(1), 147–167.

Lindblom, C. E. (1979). Still muddling, not yet through. *Public Administration Review, 39*(6), 517–526. https://doi.org/10.2307/976178

Maitland, E., & Sammartino, A. (2015). Decision making and uncertainty: The role of heuristics and experience in assessing a politically hazardous environment. *Strategic Management Journal, 36*(10), 1554–1578.

Makkonen, H., Johnston, W. J., & Javalgi, R. R. G. (2016). A behavioral approach to organizational innovation adoption. *Journal of Business Research, 69*(7), 2480–2489. https://doi.org/10.1016/j.jbusres.2016.02.017

Makkonen, H., Olkkonen, R., & Halinen, A. (2012). Organizational buying as muddling through: A practice-theory approach. *Journal of Business Research, 65*(6), 773–780. https://doi.org/10.1016/j.jbusres.2010.12.015

Marston, S., Li, Z., Bandyopadhyay, S., Zhang, J., & Ghalsasi, A. (2011). Cloud computing — The business perspective. *Decision Support Systems, 51*, 176–189. https://doi.org/10.1016/j.dss.2010.12.006

Mero, J., Tarkiainen, A., & Tobon, J. (2020). Effectual and causal reasoning in the adoption of marketing automation. *Industrial Marketing Management, 86*, 212–222. https://doi.org/10.1016/j.indmarman.2019.12.008

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook*. Sage.

Mills, A. J., Berthon, P. R., & Pitt, C. (2020). Agile authorship: Evolving models of innovation for information-intensive offerings. *Journal of Business Research, 110*, 577–583.
Moran, A. (2014). *Agile risk management*. Springer-Verlag.
Morton, N. A., & Hu, Q. (2008). Implications of the fit between organizational structure and ERP: A structural contingency theory perspective. *International Journal of Information Management, 28*, 391–402.
Norman, D. A. (1990). *The design of everyday things*. Doubleday.
Norman, D. A. (1999). Affordance, conventions, and design. *Interactions, 6*(3), 38–43.
Oliveira, T., Martins, R., Sarker, S., Thomas, M., & Popovic, A. (2019). Understanding SaaS adoption: The moderating impact of the environment context. *International Journal of Information Management, 49*, 1–12. https://doi.org/10.1016/j.ijinfomgt.2019.02.009
Orenga-Roglá, S., & Chalmeta, R. (2019). Methodology for the implementation of knowledge management systems 2.0. A case study in an oil and gas company. *Business Information. Systems Engineering, 61*(2), 195–213.
Orton, J. D. (1997). From inductive to iterative grounded theory: Zipping the gap between process theory and process data. *Scandinavian journal of management, 13*(4), 419–438.
Paluch, S., Antons, D., Brettel, M., Hopp, C., Salge, T.-O., Piller, F., & Wentzel, D. (2020). Stage-gate and agile development in the digital age: Promises, perils, and boundary conditions. *Journal of Business Research, 110*, 495–501.
Patton, M. Q. (2002). *Qualitative research & evaluation methods* ((3rd ed.).). Sage.
Piekkari, R., Plakoyiannaki, E., & Welch, C. (2010). 'Good' case research in industrial marketing: Insights from research practice. *Industrial Marketing Management, 39*(1), 109–117. https://doi.org/10.1016/j.indmarman.2008.04.017
Pozzebon, M., & Pinsonneault, A. (2005). Global–local negotiations for implementing configurable packages: The power of initial organizational decisions. *Journal of Strategic Information Systems, 14*, 121–145.
Razmdoost, K., Alinaghian, L., & Linder, C. (2020). New venture formation: A capability configurational approach. *Journal of Business Research, 113*, 290–302.
Ries, E. (2011). The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses. *Crown*.
Seethamraju, R. (2015). Adoption of software as a service (SaaS) enterprise resource planning (ERP) systems in small and medium sized enterprises (SMEs). *Information Systems Frontiers, 17*, 475–492. https://doi.org/10.1007/s10796-014-9506-5
Sia, S. K., & Soh, C. (2007). An assessment of package–organisation misalignment: Institutional and ontological structures. *European Journal of Information Systems, 16*(5), 568–583.
Siu, E. (2020). February). *The top 75 SaaS companies of the decade. Nextiva.com., 26*. https://www.nextiva.com/blog/top-saas-companies.html.
Sjödin, D., Parida, V., Kohtamäki, M., & Wincent, J. (2020). An agile co-creation process for digital servitization: A micro-service innovation approach. *Journal of Business Research, 112*, 478–491.
Srivastava, P., & Hopwood, N. (2009). A practical iterative framework for qualitative data analysis. *International journal of qualitative methods, 8*(1), 76–84.
Street, C. T., & Ward, K. W. (2012). Improving validity and reliability in longitudinal case study timelines. *European Journal of Information Systems, 21*(2), 160–175. https://doi.org/10.1057/ejis.2011.53
Swafford, P. M., Ghosh, S., & Murthy, N. N. (2006). A framework for assessing value chain agility. *International Journal of Operations and Production Management, 26*(2), 118–140.
Tan, B., Pan, S. L., Chen, W., & Huang, L. (2020). Organizational sensemaking in ERP implementation: The influence of sensemaking structure. *MIS Quarterly, 44*(4), 1773–1809.
Teece, D. (2012). Dynamic capabilities: Routines versus entrepreneurial action. *Journal of Management Studies, 49*(8), 1395–1401.
Tornatzky, L. G., & Fleischer, M. (1990). *The processes of technological innovation*. Lexington Books.
Tronvoll, B., Sklyar, A., Sörhammar, D., & Kowalkowski, C. (2020). Transformational shifts through digital servitization. *Industrial Marketing Management, 89*, 293–305.
van de Weerd, I., Mangula, I. S., & Brinkkemper, S. (2016). Adoption of software as a service in Indonesia: Examining the influence of organizational factors. *Information & Management, 53*, 915–928. https://doi.org/10.1016/j.im.2016.05.008
Venkatachalam, N., Fielt, E., Roseman, M., & Mathews, S. (2014). Small and medium enterprises using software as a service: Exploring the different roles of intermediaries. *Australasian Journal of Information Systems, 18*(3), 3371–3389.
Wu, W., Lan, L. W., & Lee, Y.-T. (2011). Exploring decisive factors affecting an organization's SaaS adoption: A case study. *International Journal of Information Management, 31*, 556–563. https://doi.org/10.1016/j.ijinfomgt.2011.02.007
Yang, Z., Sun, J., Zhang, Y., & Wang, Y. (2015). Understanding SaaS adoption from the perspective of organizational users: A tripod readiness model. *Computers in Human Behavior, 45*, 254–264. https://doi.org/10.1016/j.chb.2014.12.022
Yin, R. (2014). *Case study research* ((5th ed.),). Sage.

Dr. Joel (Järvinen) Mero is an Assistant Professor of Marketing at University of Jyväskylä (School of Business and Economics). His research interests focus on the use of data and new technologies in B2B marketing management. His previous research has been published in Industrial Marketing Management, Electronic Markets, and Marketing Mangement Journal. Mero has received the Best Paper award in *Industrial Marketing Management* twice (2017 & 2019) as a corresponding author.

Miira Leinonen is a graduate researcher at University of Jyväskylä (School of Business and Economics). Her research interests include start-up business models and the adoption and implementation of Software-as-a-Service technologies. Besides research, she works as a Chief Marketing Officer (CMO) in a B2B software company. Her practical expertise contains strategic marketing, content marketing, marketing automation, social media, and growth hacking.

Dr. Hannu Makkonen is Professor of Marketing at the School of Marketing and Communication at the University of Vaasa. His research interests lie in the areas of innovation management, innovation ecosystems, and value creation logics in industrial networks and relationships. His previous work has been published in e.g. Technology Analysis & Strategic Management, Industrial Marketing Management, Journal of Business Research, Journal of Business & Industrial Marketing, Management Decision, Marketing Theory, Journal of Business Market Management, and Journal of Financial Services Marketing.

Dr. Heikki Karjaluoto is a Professor of Marketing at the University of Jyväskylä School of Business and Economics, Finland. His research interests include digital marketing, customer relationship management, and retail banking. His previous publications have appeared in Business Strategy and the Environment, Computers in Human Behavior, European Journal of Marketing, Industrial Marketing Management, International Journal of Information Management, Internet Research, and Journal of Service Management, among others.